Telefónica UK's response to:

OFCOM's BUSINESS CONNECTIVITY MARKET REVIEW – CALL FOR INPUTS

16 June 2011

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TELEFONICA UK LIMITED RESPONSE: OFCOM – BUSINESS CONNECTIVITY MARKET REVIEW – CALL FOR INPUTS

INTRODUCTION

1. Telefónica UK Limited[1] welcomes the opportunity to respond to Ofcom's "call for inputs" in respect of the Business Connectivity Market Review 2011 (BCMR)[2].

2. We note that the call for inputs seeks views on what the key issues for the review should be before Ofcom starts its substantive analysis of competitive conditions in the Business Connectivity market. In this response we do not seek to respond to all the questions Ofcom raises in its call for inputs, but rather we concentrate on the questions Ofcom raises in respect of a Physical Infrastructure Access (PIA)[3] remedy. In previous submissions[4] we have explained why we consider the BCMR to be a significant market review. For completeness and ease of reference, we have included these previous comments where relevant to the questions Ofcom raises in its call for inputs.

EXECUTIVE SUMMARY

3. We consider the BCMR to be a significant market review for a number of reasons:

    i. As Ofcom has previously emphasised, Business Connectivity products are key building blocks for communications networks and business and are central to the effective functioning of the economy[5]. Furthermore, backhaul

[1] Telefónica UK Limited trades under the O2 brand in the United Kingdom.
[2] http://stakeholders.ofcom.org.uk/binaries/consultations/business-connectivitymarket/summary/BCMR_Call_for_Inputs.pdf
[3] Also known as "passive access".
[4] For example, [⊠] our response to Ofcom's Wholesale Local Access Market Review Consultation,
[5] " *[Leased lines] are a key building block in the communications network on which UK businesses depend, and which are central to the effective functioning of the economy. It is therefore of considerable importance that the markets for these services operate effectively, and deliver the services which businesses require in a timely, efficient and cost-effective manner, based where*

is identified as an essential element in the realisation of the Government's "Superfast Broadband Future" [6] and its BDUK programme, for both fixed and mobile elements of that ambition (including "the last third"[7]).

ii. Indeed, back in 2007, Ofcom commented that :

> *"Backhaul is increasingly becoming the constraining factor in high data rate modern communications systems ... Ubiquitous, cheap backhaul would allow better spectrum reuse and hence more efficient overall use of the spectrum."* [8]

iii. And more recently, Analysis Mason's "*The cost of capacity: mobile backhaul worldwide*", emphasises that cost effective backhaul is critical given the challenges facing operators:

> "*The combination of increasing traffic and declining revenue is squeezing mobile operators' profit margins and underlines the importance of cost reduction. Operators must explore cost reduction measures, such as increasing the scale of their operations, merging the fixed and mobile*

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possible on active competition between service providers." [§2.3] Ofcom, Business Connectivity Market Review Statement and Consultation, 8 December 2008. http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr08/summary/bcmr08.pdf

[6] As the Government explains in its strategic "Britain's Superfast Broadband Future" : "*One of the key lessons learned from the work done by Broadband Delivery UK over the summer with the industry in its Universal Service theoretical exercises was the importance of backhaul for the delivery of both superfast broadband and more basic broadband service.* [§1.13] , *BIS and DCMS, December 2010* http://www.culture.gov.uk/images/publications/10-1320-britains-superfast-broadband-future.pdf

[7] BDUK: "*The provision of affordable backhaul in these rural areas as part of the government's delivery approach would positively impact the business case of the private sector investment in fibre, fixed wireless and mobile solutions in those areas, reducing the subsidy needed to provide universal coverage. The level of competition for data backhaul and access in the marketplace is dependent on the availability and pricing of access to passive infrastructure (i.e. poles and ducts).*" [http://discuss.bis.gov.uk/bduk/theoretical-exercise/]

[8] http://stakeholders.ofcom.org.uk/binaries/research/technology-research/backhaul1.pdf

arms of combined (fixed/mobile) operators, outsourcing, and sharing procurement and operations."[9]

iv. It is clear that the roll out of next generation mobile networks requires reliable, cost effective and competitive Ethernet backhaul capacity[10]. [✂]

v. [✂].

vi. Ofcom (and others) have acknowledged the competitive advantage to Openreach of its existing duct and fibre investments[11]. Furthermore, as we (and others) have pointed out, BT is free to use its ducts and poles for any application – fixed, mobile, Wifi , Business Connectivity etc regardless (i.e. it has considerable freedom for self-supply) unlike others. The current PIA remedy is thus an "asymmetric" one (see our previous submissions). We believe this must be addressed and the current restrictions removed.

vii. In short, we believe that PIA offers real opportunity to address the market failure and support and incentivise effective competition for backhaul markets[12]. Accordingly, we welcome Ofcom's confirmation that it will consider PIA as a remedy in the BCMR. Of course, Ofcom has already committed to this in its WLA Statement.

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[9] http://www.analysysmason.com/About-Us/News/Insight/Wireless_traffic_Insight_May2011/

[10] Articles/ papers/ blogs/ conferences abound about the importance of backhaul for LTE. For example, http://www.unwiredinsight.com/3g-upgrade-backhaul And others, such as C&W, Geo, Fujitsu etc have highlighted the importance of PIA for their own deployment plans.

[11] In the recent consultation on relaxation the EoI undertakings in respect of high bandwidth (over 1 GB), Ofcom considers: *Openreach's existing duct and fibre investments might offer a competitive advantage to Openreach in this market.* Request from BT for exemption from the Undertakings under the Enterprise Act 2002 for certain high bandwidth access services, Ofcom Consultation, 31 May 2011 http://stakeholders.ofcom.org.uk/binaries/consultations/high-bandwidth-exemption/summary/high-bandwidth-exemption.pdf

[12] As BT Wholesale points out: "*BT Wholesale provides mobile backhaul for four of the five UK mobile operators* " and "*4 of 5 mobile operators signed for Managed Ethernet backhaul deals*", BT wholesale Presentation: www.btplc.com/Thegroup/.../BTWholesalepresentation9thJuly2009.ppt

viii. We note that in assessing whether relaxation of the current limitations on PIA (such that it could be used for Business Connectivity deployments) is a justified remedy, Ofcom is mindful that it must also assess whether there are any potential implications of such relaxation (indeed as Ofcom is required to do since it is sound regulatory practice to undertake an impact assessment). In particular, whether the existing leased lines remedies might be undermined by migration from valuable leased lines business to PIA – which might then result in loss of the former's contribution to BT's common costs and then lead to upwards rebalancing of leased lines tariffs and other downstream products which rely on BT's Ducts and Poles such as LLU and WLR. Whilst we agree that these aspects should be considered, it is important that there is regulatory consistency here: for example, we note that previously (see LLCC) Ofcom has not considered that the reasonableness of allocation of common costs was of sufficient important to warrant analysis (see below) and Ofcom has already determined in its WLA Statement that the combination of PIA and downstream remedies is complementary.

ix. In the meantime, we also note that BT has recently asked for temporary relaxation of the EoI requirements in respect of certain high bandwidth Ethernet and optical access products (e.g. WES, WEES[13]). BT argues that these services are competitively supplied and the EoI obligations are restricting its flexibility to compete effectively in the supply of these services (and , in any event, BT was not found to have SMP in relation to these products in the previous BCMR). Openreach argues that a number of operators are providing Ethernet and optical access services using their own extensive network

[13] High bandwidth backhaul services are not within the scope of the proposed exemption. Therefore, backhaul services such as Backhaul Extension Service ("BES"), Ethernet Backhaul Direct ("EBD"), Openreach Backhaul Network Service ("OBNS") and Broadcast Access will continue to be provided on an EoI basis pursuant to the Undertakings. http://stakeholders.ofcom.org.uk/binaries/consultations/high-bandwidth-exemption/summary/high-bandwidth-exemption.pdf

infrastructure and are able to compete effectively.[14] We note that Ofcom remarks that "*We have not identified any recent evidence that suggests market failure in the supply of these services"* and proposes to grant this relaxation notwithstanding that the BCMR analysis has not been undertaken[15] (although, Ofcom makes clear that its approach to the BT request does not prejudge its BCMR analysis).

x. Of course, Ofcom will be aware of the concerns that we have raised in previous correspondence [✂]and, furthermore, Ofcom has itself acknowledged these concerns[✂]:

> *"As part of our response to this situation, we have recently asked the OTA to take the lead in reviewing the current service level regime governing the core network products supplied by OPenreach, including Ethernet. The OTA are due to report back to us on this issue before the end of April, and we expect that this may lead to a tightening of the existing regime, with*

[14] BT listed Virgin Media, C&W Worldwide, Colt, Global Crossing and Geo Networks as providers offering high bandwidth connectivity services using their own network infrastructure.

[15] "*Openreach argues that it competes to supply these services. The evidence we gathered for BCMR 2008 and the information provided by Openreach in its request for exemption suggests that Openreach faces competition in the supply of high bandwidth Ethernet access services. In BCMR 2008, we estimated BT's market share of the AISBO market above 1 Gbit/s was 38-40% in April 2008 and concluded that BT's market share was falling. According to information submitted by Openreach as part of the exemption request, Openreach's share of the Ethernet access market above 1 Gbit/s remained flat at* ***"[ ]"*** *(below our April 2008 estimate) over the last two years and is predicted to fall further. We consider that Openreach is likely to face competition from other providers with their own network infrastructure in serving the needs of businesses requiring high bandwidth connectivity between multiple sites. We have not identified any recent evidence that suggests market failure in the supply of these services. Nevertheless, we have not performed a detailed market analysis and we do not intend to pre-judge the outcome of the BCMR that we have recently initiated. Openreach considers it has no particular advantage in the provision of high bandwidth connections. Openreach's existing duct and fibre investments might offer a competitive advantage to Openreach in this market. However, the high revenues associated with these services should provide sufficient incentives to other providers to invest in infrastructure to meet customer needs when it is profitable to do so. A number of other providers have invested in network infrastructure to serve this market and (based on our understanding) they continue to expand their networks. Analysis of data submitted by Openreach shows that the number of externally supplied high bandwidth Ethernet access services provided by Openreach has remained relatively flat over the last two years in an otherwise growing market (according to market estimates provided by Openreach).*" [§4.7 and §4.8] ibid

sharper incentives on Openreach to deliver appropriate levels of performance. We are hopeful that the OTA will be able to orchestrate industry agreement on the way forward, but will consider formal intervention if required"

xi. In terms of its approach to the BCMR, we support Ofcom's intent to seek to concentrate on the issues of major importance and to streamline and simplify the review wherever possible in order to allow the review to concentrate on the key areas for industry. Given that Ofcom's current timetable for the Business Connectivity Market Review and the timetable for the 800MHz and 2.6GHz auction are such that Ofcom's assessment of the markets for Ethernet backhaul capacity will not be known in good time for the auction (on our current understanding of the timetable), we believe that it is important for Ofcom to seek to provide as much clarity and certainty in respect of PIA as early as possible in the process.

4. We believe it is critical that Ofcom assesses the role passive access remedies could have in the BCMR[16]. As per previous submissions, we believe there are clear benefits that passive remedies can provide. We also agree that in assessing the potential for passive access remedies, Ofcom should consider the implications of such remedy in the BCMR market (indeed sound regulatory practice requires such a balanced assessment) recognising that Ofcom has already determined that PIA and downstream remedies can be complimentary. In this response, we set out our views on the benefits and implications in more detail.

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5. We respond to the main areas of interest to us which Ofcom raises in its "call for inputs". We discuss the role we see PIA playing in promoting downstream

[16] As it has already said it will, for example, see WLA.

competition in business connectivity (and more widely). We also discuss the question Ofcom raises about the possible implications of a PIA remedy in the Business Connectivity market.

The importance of the BCMR

6. We believe it is common ground that Business Connectivity products are key building blocks for communications providers, businesses and the economy, as well as for realising the Government's Superfast Broadband ambition (see earlier references).

7. With the growth in capacity demands and the challenging operational economics it is clear that ensuring reliable, cost effective and fit for purpose backhaul continues to be an essential element of operators transmission strategies[17].

8. It is essential, therefore, that Ofcom sets the right regulatory framework to promote sustainable competition in the Business Connectivity market.

Ofcom's approach

9. In its call for inputs , Ofcom proposes to "*place particular emphasis on the promotion of competition in the supply of business connectivity services, which we consider is the most effective way of furthering citizens' and consumers' interests in this market.*" [§1.9]

10. We support this approach. We see that PIA offers clear opportunity to engender competitive backhaul markets. We believe the touchstone of Ofcom's approach to regulation as articulated in Ofcom's Strategic Telecomunications Review[18] and more recently by Ed Richards (at last years FT Telecoms Conference), remains as relevant to the BCMR as it has to the WLA: "*focusing regulation on enduring bottlenecks and*

[17] Analysis Mason's recent report usefully discusses the issues in greater detail (ibid).
[18] http://www.ofcom.org.uk/static/telecoms_review/final_statement.htm

deregulating downstream – remains, we believe, the best way to allow investment decisions to flow in a way that benefits consumers and supports innovation and investment".

11. As Ofcom noted in the previous BCMR:

> *"In our view, [BT's] market power is, inter alia, derived from its control of ubiquitous infrastructures, which cannot be readily duplicated by competitors, given the importance of sunk costs and presence of economies of scale and scope."* [§8.195][19]

12. We believe that PIA offers real opportunity to address market failure in the business connectivity markets (including the self supply benefits available to BT) and to incentivise effective competition in backhaul markets. Whilst, Ofcom has elsewhere (WLA) remarked that the current leased lines remedies are intended to address BT's market power (and self supply benefits), we believe Ofcom must consider a complementary set of remedies including PIA.

Meeting growing backhaul capacity demands

13. There is considerable analysis and comment about the increasing capacity demands on mobile networks both now and with next generation deployments such as LTE.[20] Including the increased capacity demands for backhaul[21]. For the avoidance of

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[19] http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr08/summary/bcmr08.pdf Indeed, in 2007, Ofcom itself commissioned PA Consulting to undertake an analysis of backhaul requirements. Although, PA's work of course predated PIA options.

[20] And whilst there is debate on some of the higher growth multiples [see for example, Analysis Mason], there is nonetheless consensus that the multiples are significant. http://www.analysysmason.com/About-Us/News/Insight/Wireless_traffic_Insight_May2011/

[21] *In its Annual Report 2011, BT reports that demand for high bandwidth Ethernet access services also continued to grow. "The wholesale market is beginning to adopt next generation communications services like IP voice, higher speed broadband over copper and fibre and Ethernet for data connectivity. We have seen continued bandwidth growth with capacity more than trebling on our network over the past five years. To support the rapid growth of high bandwidth services such as video over fixed lines and mobile networks, a number of service providers are buying*

doubt, by backhaul, we mean both connecting radio base stations in the access layer[22] and backhauling in the core network.

14. Mobile operators have two broad options to increase backhaul capacity:

    - Use leased lines (from the incumbent or others)
    - Self build (copper, fibre or microwave) backhaul capacity

15. PIA is relevant to both options: it can enable alternative providers to enter the market and provide alternatives to incumbents leased line services or it can support operator self-build strategies (either by themselves or with others).

16. Previously, microwave solutions have been viewed as the main self build option for mobile backhaul, largely because of the comparative cost and time to market implications of undertaking the civil works associated with fibre deployment. However, PIA now offers the opportunity to address these issues for fibre (the cost and execution implications of civil works was of course also a key consideration in respect of the business case for alternative fibre deployments under the WLA).

17. PIA has the potential to change the business case for alternative fibre backhaul deployments which has traditionally suffered from the significant civil works costs

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wholesale managed services to meet this demand quickly rather than building their own infrastructure." Furthermore, BT also notes that "*We also provide backhaul services for mobile voice and data. We expect to see more demand for these services with the increasing use of smartphones and tablet devices. We believe that this market will continue to develop in the coming years with the roll-out of next generation access networks and high bandwidth applications.*"[21]

[22] And here it is difficult to see the difference between backhauling from an LTE base station and backhauling from an FTTC cabinet – both are in the access layer and both are recognised as next generation solutions (indeed BT is itself trialling both in Cornwall). Other than, of course, that Ofcom considers the two are in difference markets "*...[we] considered that mobile broadband access was unlikely to act as a sufficient constraint on fixed broadband pricing at the retail level, and should therefore be excluded from our product market definition. This suggests that mobile broadband access would not be an adequate substitute for most people and would not constrain prices of fixed broadband to the competitive level. We maintain this view, and therefore conclude that developments in mobile broadband access at this time should not be considered in our SMP analysis.*" [§4.27] WLA

(as well as offering other benefits discussed elsewhere). Moreover, with next generation access deployments, significant deployments of fibre are being made in the access network. As PA Consulting noted in its 2007 report to Ofcom[23]:

> *"The final link to the base station will become shorter as Fibre-To-The-Cabinet (FTTC) pushes fibre further into the access network, increasing the number of fibre PoPs. [This will reduce the final link to an average of 1km – 1.5km for the majority of base stations]."*[24]

18. And, as Analysis Mason reports:

> *"Fibre is the preferred physical medium because of its high capacity. It requires more capex than microwave solutions, but is associated opex is negligible. We estimate that 20%-40% of base stations in most major cities in developed markets are located close to fibre networks that could be (but are not presently) used for backhaul. Furthermore, the distances between the base stations and the fibre access points will decline over the next five years...the question for operators is how to bridge the gap between the fibre and the base station."*[25]

19. Accordingly, we believe that the opportunity for PIA to provide sustainable competition in the business connectivity market must be addressed.

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[23] Indeed, PA made a number of recommendations in respect of fibre. In particular, it concluded: *The big challenges facing optical fibre cover: • Encouraging greater deployment and availability of optical fibre and improving competition in its provision in the access network. • Finding solutions for the re-use of in-building cabling to link to indoor, wallmounted and roof-mounted base stations. And*, PA's recommendations were: *"Ofcom could investigate techniques for lowering the costs of installing fibre in the ground, or alternatives such as fibre installed along telephone wires and poles. Ofcom could consider whether to enforce third party access to local exchanges, cabinets and PoPs owned by large operators for optical fibre links on the access side. Ofcom could lead research into practical arrangements for sharing of in-building cabling and communications links into / out of buildings to provide the final link to indoor, wall-mounted or roof-mounted base stations."* [§6.1.2] To which Ofcom's response was as follows: "*Benefits identified through this study would be accrued by operators and end-users alike."*[23]

[24] ibid

[25] ibid

Passive Remedies – and downstream competition

The role passive remedies can play in promoting downstream competition

20. We believe that there is a clear opportunity for PIA to play a role in the Business Connectivity market[26] (and, more generally, wider fibre deployment). For example:

    i. It supports network based competition in the form of alternative operators, enabling opportunities to compete, increased choice of technical solutions and service innovation as well as enabling self build/ self supply[27] options (including with others).

    ii. In so doing, it can also incentivise improvements/ development of incumbent wholesale/ leased line solutions – as the incumbent must respond to such competition. It can also offer the potential for competing wholesale services (and in so doing it can provide a path to deregulation of downstream products, for example, as in the WBA, as we discuss below).

    iii. It increases the flexibility and autonomy of operations. As we discuss below, these are areas which, notwithstanding BT Wholesale's clear ambition in the Managed Services arena[28], in our experience, sufficient flexibility is not being delivered. As we discuss below, wholesale solutions mean dependency on the wholesale provider for service levels, product development, rollout, QoS,

[26] We note that [Analysis Mason's 2010 report remarks: "*The backhaul and E-side usually have a large number of ducts on each link and around one in four ducts is empty.*" Final report for Ofcom, Operational models for shared duct access, 1 April 2010, Ref: 16873-135a. http://stakeholders.ofcom.org.uk/binaries/consultations/wla/annexes/operational_models.pdf

[27] For example, in Spain, Duct Access is used by mobile operators for backhaul.

[28] BT Wholesale's approach to the market is focussed on managed services: "*Our BT Wholesale business is successfully moving from being a traditional UK wholesale provider to one that's providing long-term managed network services and network outsourcing to the UK industry.*" *[ibid]* (and previously, BT has made no bones that it serves 4 of the 5 mobile players.). We believe competition in the provision of managed services would be beneficial.

etc. PIA provides the opportunity for far greater control. This is an important factor for the future. For example, as PA's 2007 report to Ofcom observed[29]:

> *"The nature of backhaul link deployment is likely to change as well, becoming far more dynamic and fluid. The rate of change over time in the number of base stations and the number of fibre PoPs to backhaul to will increase significantly. Combined with the use of mesh topologies in dense areas, this will mean that backhaul networks will be much more ad-hoc in nature and will develop, evolve and change much more quickly than we're used to today. This will make formal planning and management of backhaul networks far more complex."* [§7.2]

iv. We believe, PIA provides a real opportunity to incentivise the market's ability to deliver reliable and competitive backhaul (in both the access layer and core) i.e. competition based incentives rather than regulated SLAs etc. We discuss our experience of the current regime later in this response. [✂] . A credible and fit for purpose[30] PIA product can enable self supply or alternative managed services and thereby introduce a sustainable competitive dynamic.

v. As we explain at the outset of this response, as well as in our response to Ofcom's Consultation on future mobile competition and proposals for the award of 800 MHz and 2.6 GHz spectrum and related issues[31]:

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[29] ibid

[30] Of course, products SLA/ SLG must be fit for purpose – a second rate PIA product would simply see poor poor performance transferred from one solution to another.

[31] Consultation on assessment of future mobile competition and proposals for the award of 800 MHz and 2.6 GHz spectrum and related issues, Ofcom, 22 March 2011, http://stakeholders.ofcom.org.uk/binaries/consultations/combined-award/summary/combined-award.pdf

> *"... on a practical point, any coverage obligation is rendered meaningless, if there is not available backhaul infrastructure and/or services to carry back the traffic from the radiating base stations. Ofcom's forthcoming decisions on the Business Connectivity Review and access to BT's "ducts and poles" will be as, if not more important, in ensuring that the benefits of LTE can actually be realised in practice by citizens and consumers. It is therefore essential that Ofcom reaches a consistent position on the benefits of providing rural coverage and securing the appropriate inputs; both spectrum and cost-effective backhaul."*

vi. Overall, PIA offers the opportunity to broaden the scope for competition in the Business Connectivity Market (and more widely[32]) beyond that which the current wholesale remedies provide. We discuss this further in this response (see "The benefits of increasing demand for PIA").

21. We believe PIA is consistent with the principle that is at the heart of Ofcom's approach to regulation, as articulated by Ed Richards at last year's FT Telecoms Conference. We believe it is common ground that where possible infrastructure-based competition provides the most sustainable and effective level of competition in the communications market. If Ofcom were to depart from this approach in respect of the BCMR then that raises question of regulatory consistency which Ofcom will need to address. Indeed, as Ofcom has already identified in the previous BCMR (see earlier), BT's market power is derived from its control of ubiquitous infrastructure.

A mixed economy of complementary remedies

22. We see opportunity for PIA as a complementary remedy in the Business Connectivity market alongside the existing remedies. Indeed, in the WLA, Ofcom has already

[32] Indeed, in response to the WLA, a number of alternative providers indicated a clear interest in this opportunity. For example, Cable and Wireless Worldwide.

recognised that PIA and downstream remedies (VULA) can provide a complementary set of remedies – a "mixed economy" [33]. Nonetheless, elsewhere in this response we discuss Ofcom's questions as to whether there is the risk that PIA could be counter-productive or 'cannabilise' existing leased lines remedies.

PIA is already being used for business connectivity in other member states

23. As Ofcom will be aware, a PIA remedy is already being used in other member states for "Business Connectivity ", for example, Spain (and Portugal and others). Moreover, the Commission implementation Report (15th) remarks that it has seen a "smooth" implementation of duct access:

> *"In November 2009, the CMT revised the ducts reference offer previously submitted by the incumbent …the implementation of this remedy has proven to be smooth. Alternative operators are of the view that this is a positive measure, but it has been used mainly for the connection of mobile base stations and in some cases for fibre connections to business customers."*[34]

24. And furthermore:

> *"Since this remedy was imposed to the incumbent, near 2000 km of ducts have been rented by operators for their fibre deployments, with no significant problems materialized so far. Even when connecting mobile base stations with fibre has*

[33] As in the WLA, wherein Ofcom views PIA and VULA as complementary: "*To address BT's SMP, we are imposing a number of complementary regulatory obligations (SMP remedies*)." [§1.23] And "*… We therefore considered that a 'mixed economy' of access products should be available to allow for variations in the relevance of each product, and for market uncertainties.* " [§9.41]

[34] COMMISSION STAFF WORKING DOCUMENT *accompanying the* COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS PROGRESS REPORT ON THE SINGLE EUROPEAN ELECTRONIC COMMUNICATIONS MARKET (15th REPORT) {COM(2010)253} http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/15threport/15report_part1.pdf

historically been the main purpose, operators have ultimately started requests for FTTH deployments."

25. This can help inform Ofcom's own assessment.

The benefits of increasing demand for PIA

26. More generally, given the interest expressed to date, relaxation of the current restrictions on PIA would be likely to result in increased demand for PIA, thereby increasing economies of scale and providing the right stimulus for BT to reduce PIA prices (which are currently the subject of some concern[35] and as Ofcom acknowledges may result in challenge[36]). Alternative providers are already on record as expressing interest in the opportunity to provide alternative Business Connectivity solutions to BT using PIA[37] and thus improve the business case for investment and competition at deeper network levels (previous correspondence refers). Several responses to the WLA considered there were these NGA benefits (one can see there are a variety of applications discussed backhaul, cellular, FTTC, FTTP, uncontended business products etc).[38]

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[35] For example, Fujitsu, Virgin Media, TalkTalk, Geo and Vtesse Networks. http://www.computerweekly.com/Articles/2011/04/05/246175/Telecoms-firms-threaten-BDUK-boycott-over-BT-terms-and.htm

[36] Ed Richards: "*We do not have a settled view on it because I am anticipating that it is something that we will have to examine in considerable detail, and which will end up being appealed to the courts*." House of Commons Oral Evidence (select committee) 3 May 2011, http://www.publications.parliament.uk/pa/cm201012/cmselect/cmcumeds/uc956-i/uc95601.htm

[37] See WLA and elsewhere.

[38] For example, Geo commented: "*The incentive to deploy competing NGA networks is reduced when an operator is faced with long stretches of network build to connect to a point where it can pick up the PIA remedy. Ofcom should encourage competition and new network build by providing operators access to BT's infrastructure at the closest point to their network. We do not believe that BT should have the advantage of using its own legacy network infrastructure to deploy NGA in a market where it holds SMP while other operators are only offered a limited and insufficient option to use that infrastructure. Ofcom needs to extend the PIA remedy to other MDF sites on BT's infrastructure. This will stimulate competition and investment in the market and allow operators to compete with BT on a level playing field.*"
http://stakeholders.ofcom.org.uk/binaries/consultations/wla/responses/geo-networks-ltd.pdf
And Cable and Wireless Worldwide commented: "*By restricting the use of PIA Ofcom is seeking to artificially prevent PIA to emerge, in the situations where it could prove economic, as an upstream*

27. We note Ofcom's remarks in this latter respect in its WLA Statement and we comment on these below.

Ofcom initial assessment (made in the WLA)

28. In its WLA Statement, Ofcom discussed a number of the benefits various Communications Providers had identified in their responses to the WLA [§7.54 to §7.89] [39]. Ofcom concluded that "*extending the scope of PIA to include leased lines would be unlikely to stimulate much additional investment in NGA networks in the short term…*" because active (VULA) services are likely to be the primary focus of NGA-based competition over at least the next four years with PIA providing an additional option mainly in areas where BT does not roll out and hence VULA is not available .

29. Ofcom remarks that since BT plans to deploy NGA in predominantly urban areas, the value of PIA in extending the reach of NGA is likely to be greatest in rural areas[40]. And that since these are areas where there are relatively few businesses, particularly large businesses that are the main users of high bandwidth leased lines, communications providers are unlikely to derive significant benefit, in terms of NGA deployment, from the ability to use PIA for leased lines in any case. Further, areas with the highest concentrations of large business often have fibre networks in place [§7.59].

30. Whilst we note Ofcom's view here, as Ofcom recognises, it is a view "in the short term" and furthermore, the analysis does not appear to consider the demand for mobile backhaul or indeed the opportunity to deploy mobile NGA solutions. This clearly must be considered in the BCMR.

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input to the BCMR market. We strongly disagree with this approach."
http://stakeholders.ofcom.org.uk/binaries/consultations/wla/responses/c-w-worldwide.pdf

[39] Ofcom summarises these as: "*The main argument here seems to be that allowing CPS to use PIA for leased d lines (including fixed and mobile backhaul circuits) as well as NGA network deployment would improve the business case for NGA deployment using PIA*." [§7.56].

[40] And as Ofcom notes: the costs of backhaul from base stations in more rural and remote areas can be particularly high.

31. Indeed, BT's own recent announcements in respect of its rollout of next generation access in Cornwall demonstrate that BT views mobile as part of next generation access solutions:

> *"BT Wholesale has underlined its commitment to use a mix of next generation access (NGA) technologies to bring broadband to remote areas of the UK.....Said Sally Davis, CEO of BT Wholesale: "BT is committed to bringing the highest speed broadband to everyone in the UK, whether that's over fibre, copper or airwaves. "This is a great mixed economy example of innovation and collaboration by two organisations pushing the boundaries of technology for the benefit of customers. The expectation of what we will learn is truly exciting, as much for the customers who are unable to get a broadband service in a number of rural communities across the country."*[41]

32. Furthermore, as BT notes in its response to Ofcom's Consultation on assessment of future mobile competition and proposals for the award of 800MHz and 2.6GHz spectrum and related issues:

> *"We welcome the inclusion of the 2.6GHz low power licence proposals within the design of the award. Provided the packaging, technical conditions and auction design are appropriately defined and spectrum reserved for this purpose, these will enable much wider participation in the UK mobile market via small cell sub-national networks with potential to encourage additional innovation and competition in the provision of services to the benefit of consumers."*[42]

33. This only serves to underline the points we make elsewhere regarding exposure of the market to the asymmetric nature of the current PIA remedy and the benefits it affords for BT self supply. It is also clear that analysts also consider WiFi and LTE as

[41] http://www.btplc.com/ngb/News/Cornwall4G.htm
[42] http://stakeholders.ofcom.org.uk/binaries/consultations/combined-award/responses/BT.pdf

competitors – wherein again BT benefits from self supply of PIA (see for example Telco 2 report[43]).

34. In assessing the demand for higher bandwidth lines in rural areas, Ofcom needs to consider the demand from mobile and, furthermore, the consistency of such an assessment with the government's ambition for NGA to help encourage business and other applications in rural areas:

> "*The government expects a mixture of technologies will be used in the rural rollouts - including mobile, satellite and fixed-line fibre broadband connections, to hook up community hubs with superfast speeds.*"[44]

35. Accordingly, we believe Ofcom must give careful consideration to the introduction of a PIA remedy in the BCMR.

Passive access and existing remedies

36. Ofcom asks "What implications might adoption of passive remedies have on the provision of active remedies?" We think this is a fair question to ask (indeed, it is of course sound regulatory practice to undertake an impact assessment and Ofcom is required to do so). However, in asking it – and making an assessment – Ofcom must act consistently and seek out available evidence (as it is required to do).

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43 AN_WiFi-destroying-LTE-Value_full.pdf

44 As reported at: http://www.silicon.com/technology/networks/2011/05/27/superfast-broadband-more-rural-funds-detailed-39747469/

Implications for the pricing of leased lines circuits (and other products)?

37. Ofcom raises the question as to whether the existing leased lines remedies might be undermined by (valuable) customers migrating to PIA away from leased lines – which might then result in some loss of the latter's contribution to BT's common costs and then lead to upwards rebalancing of leased lines tariffs and other downstream products which rely on BT's Ducts and Poles such as LLU.

38. Of course, any assessment would need to determine if there was likely to be a net migration away from leased lines caused by the introduction of PIA (and as we discuss below, there may be reasons for migration regardless of PIA); what would the size of that migration be and the associated net lost common cost contribution to be recovered from the remaining leased lines base and other lines in the BT product portfolio? And furthermore, even if there is migration , overall do the benefits outweigh any such effect? Ofcom needs to consider how it will make such assessments and what evidence it will rely on.

Regulatory Consistency

39. Previously, Ofcom has not considered that the issue of the allocation of common costs warrants its attention. In its Leased Line Charge Control (LLCC) Statement (2009)[45] Ofcom remarks:

> "*we have not taken a view as to whether there is reasonable allocation of common costs between our leased lines services and services outside of the scope of the charge control*. "[§3.177]

40. Accordingly, to date, in setting remedies in the leased lines market, it appears to us that Ofcom has not been concerned about whether or not there is a reasonable allocation of common costs between leased lines and services outside such charge

[45] Leased Line Charge Control Statement, Ofcom, 2 July 2009
http://stakeholders.ofcom.org.uk/binaries/consultations/llcc/statement/llccstatement.pdf

controls. Hence, Ofcom must now explain why it now considers that the allocation of common costs is an important consideration. Ofcom must explain how it is regulating consistently here.

41. There is, of course, a history of remedies evolving in the business connectivity market to enhance competition. For example, PPCs themselves were an innovative product when originally introduced[46].

The evolution of the market

42. Ofcom has already explained that it has set LLCC price control regulation against the context of a "dynamic and evolving market" [47]. And , in this context, Ofcom has not found it necessary to consider the allocation of common costs against the backdrop of a dynamic and evolving market.

43. Ofcom must be transparent about the assumptions it made about the metrics of the dynamic and evolving market it envisioned and against which it set the current LLCC framework. Otherwise, without such transparency, one cannot assess the degree to which (if at all) the environment established by PIA is beyond the boundaries of that which Ofcom has based its current regulatory approach.

[46] As a BT notes : "*In order to deal with the access bottleneck and to allow new entrants to connect customer sites to their network infrastructure, a relatively recent product has been developed called a Partial Private Circuit (PPC). PPC is a private circuit from the end user, through the incumbent operator's network and to a Point of Handover (PoH), where the connection is delivered to the competing operator. The competing operator will buy PPCs from the incumbent and deliver different access products to end users in different markets/countries.*"
http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Consultativeresponses/BTdiscussionpapers/Electronic/Economicbenefits.pdf

[47] "*The charge controls are being set in a changing market. The charge controls are being set in a dynamic and evolving market environment*"[§1.3 and §1.4] Leased Lines Charge Control Statement, Ofcom, 2 July 2009
http://stakeholders.ofcom.org.uk/binaries/consultations/llcc/statement/llccstatement.pdf

Ofcom's analysis

44. When Ofcom makes any such assessment if must make a proper evidence based assessment. And, without prejudging any such assessment we would make a number of observations:

    i. Absent PIA, there may be a variety of reasons why BT may face migration away from its leased lines products. For example, see BT's evidence in support of its request for relaxation of EoI[48] and Ofcom's associated assessment that:

> "*We consider that Openreach is likely to face competition from other providers with their own network infrastructure in serving the needs of businesses requiring high bandwidth connectivity between multiple sites*."

    ii. Accordingly, BT is already clearly anticipating the effects of competition and hence its response. Equally, as BT's response to the Ofcom Consultation on Future Competition in the mobile market (ibid) makes clear, BT also anticipates increasing demand for "backhaul (broadband)" products[49].

[48] In BCMR 2008, we estimated BT's market share of the AISBO market above 1 Gbit/s was 38-40% in April 2008 and concluded that BT's market share was falling. According to information submitted by Openreach as part of the exemption request, Openreach's share of the Ethernet access market above 1 Gbit/s remained flat at **"[ ]"** (below our April 2008 estimate) over the last two years and is predicted to fall further. We consider that Openreach is likely to face competition from other providers with their own network infrastructure in serving the needs of businesses requiring high bandwidth connectivity between multiple sites.

[49] "*The dramatic increase in data traffic forecast by industry analysts leads BT to believe that the number of indoor licences should be maximised as there is a clear mobile industry trend towards smaller cells to deliver the capacity that consumers will demand. Use of small cells represents a highly efficient use of the spectrum because of the greater capacity that can be provided with the intensive frequency re-use that can be achieved across a given area. Further, with on-going improvements in backhaul (broadband lines), there is the possibility that the radio interface rather than the fixed network will become the key determinant of service throughput.*" [Ibid]

iii. Ofcom itself asks the question whether other products – such as DSL or VULA – might be alternatives to leased lines (and hence affect demand for leased lines).

iv. A migration between products: from legacy to new products is anticipated in any event. And since, BT has some flexibility in the allocation of common costs across its portfolio of products (subject to compliance with relevant cost orientation conditions), these migrations may themselves result in a changing balance and profile of common cost recovery.

45. Accordingly, absent PIA there are already a range of factors which may determine the demand for leased lines and moreover the balance of BT's allocation of common costs. Ofcom needs to be clear how it will assess questions such as: would demand for PIA be substitutional to leased lines, complementary, additional etc ?[50]

The opportunity for de-regulation?

46. In the call for inputs, Ofcom raises the question "*...would the introduction of passive remedies lead to the removal of regulation of downstream wholesale active remedies?*" [§1.48][51] . Whilst this is a fair question, there is of course a precedent of upstream remedies (LLU) eventually leading to de-regulation of downstream remedies (WBA) and of course the general de-regulation of retail price control on BT.

47. Accordingly, the potential for de-regulation cannot be discounted subject to a clear evidence based assessment. For the purposes of this BCMR, we believe PIA and downstream remedies can be complementary.

[50] And in addition, Ofcom is already making balanced assessments, for example, in its decision to use national costs rather than geographically de-averaged costs and the potential impact that could have on investment incentives in non-competitive areas outside of the CELA area.[50]

[51] Some leased lines and backhaul services are currently regulated with BT required to provide these products on a cost orientated basis and in many cases in accordance with a specific charge control. Ofcom notes that it needs to consider whether introducing PIA as a remedy in the business connectivity market could undermine the remedies that have been imposed in that market.[51] See §7.56, Ofcom's Wholesale Line Rental Statement

It is already recognised that PIA and downstream remedies can complement each other

48. Of course PIA and the active remedy VULA co-exist and complement each other[52] currently within the Wholesale Local Access Market, and LLU and Wholesale Broadband Access (Bitstream) products have sat alongside each other, (and, of course, LLU competition has enabled a significant proportion of the WBA market to now be de-regulated with "Bitstream" services no longer regulated in areas where there is sufficient upstream competition[53]). Furthermore, the market has seen a migration away from wholesale active access to passive acccess to the benefit of competition. Remedies need to be assessed and deployed in response to the particular market analysis and where remedies can best support sustainable competition. We do not see that the introduction of PIA automatically means removal of downstream regulation – although, of course over time, the whole premise of regulating access at the deepest appropriate level is that it offers the opportunity for de-regulation downstream in competitive areas if appropriate.

BT Common Costs

49. Ofcom also raises the question as to what implications might PIA have for allocation of common costs to downstream products.

50. Efficient use of BT's ducts must also be considered[54]. Indeed, as George Williamson, director of strategic network design at Openreach remarks in respect of BT's announcements in 2009 about its FTTP rollout revised plans:

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[52] Ofcom's Wholesale Local Access Market Review concludes that both provide opportunities and can co-exist.

[53] And as BT notes in its 2011 Annual Report: "***Broadband and convergence*** *In 2011 broadband and convergence revenue increased by 3% (2010: 2% increase) due to the continued growth in broadband revenue in BT Retail and the increase in LLU revenue in Openreach. This was offset by a decline in broadband revenue in BT Wholesale, reflecting the trend of CPs continuing to switch to LLU provided by Openreach and due to BT Wholesale securing volumes under long term MNS contracts.*"
http://www.btplc.com/Sharesandperformance/Annualreportandreview/pdf/2011_Financial_Review.pdf

[54] We note that Analysis Mason's 2010 report remarks: "*The backhaul and E-side usually have a large number of ducts on each link and around one in four ducts is empty.*" Final report for Ofcom,

"What we have been doing is trying to assess how to re-use existing physical infrastructure. We are trying to improve our records on ducts. The result may be a doubling of the ratio of FTTP to FTTC."[55]

51. We recognise that Ofcom must consider the implications of remedies. However, we note that the concern over the potential cannibalisation of the leased lines business market expressed here appears to suggest that the analysis earlier in respect of the attractiveness of PIA to improve the NGA business case is a function of the price control on leased lines rather than underlying demand for PIA. The WLA requires PIA charges to be LRIC+ based. Hence PIA must make an appropriate contribution to fixed and common costs – as must BT's overall portfolio of products. The question at the heart of Ofcom's consideration is the nature of the remedy for sustainable competition for the business connectivity market: PIA or regulated downstream products or a mixed economy? We believe that an appropriate mix of remedies is likely to be the right balance.

52. Ofcom makes a comment that it could be "inefficient" for PIA to be used as a substitute for business leased lines simply because of [the regulated structure of] prices. It is of course important for regulation not to bake in artificial and counter productive behavioural incentives into a market. However, as we say, the efficiency of maximising the use of ducts also needs to be considered[56]. Furthermore, in the short term, the absence of PIA for business connectivity where BT deploys its own roll out of fibre will simply ingrain BT's ability to offer wholesale business connectivity solutions. For example, in Cornwall, BT and Everything Everywhere have partnered to offer both wire and wireless next generation services. It is not clear that such a partnership is replicable by a combination of players in the absence of BT

Operational models for shared duct access, 1 April 2010, Ref: 16873-135a. http://stakeholders.ofcom.org.uk/binaries/consultations/wla/annexes/operational_models.pdf

[55] http://stakeholders.ofcom.org.uk/binaries/consultations/wla/annexes/csmg.pdf

[56] And we note that, absent PIA, on the face of it, the Business Connectivity market faces a higher risk premium in being restricted to leased lines solutions compared to passive access, since in the LLCC Statement Ofcom concludes that the "risk rate" for leased lines is the "rest of BT" rate rather than the (lower) Openreach rate.

given the current limitations on PIA[57]. This also has implications for the openness of bidding for the BDUK funds and, furthermore, compliance with [EU] rules on State Aid will also need to be assessed.

53. Furthermore, the question of the current regime ('WLA only' PIA) foreclosing the option for subsequent PIA in the business connectivity market also arises. If subsequently BT was willing (or was required) to offer PIA for business connectivity, ducts may be congested, resulting in business connectivity markets bearing the costs of increasing capacity. Of course, this could be a rationale approach from BT given the value of the business market (i.e. duct land grab).

Effectiveness of existing regulation

54. [✂].

55. [✂].

56. There is ineffective competition.[58] As we say, we believe PIA has the opportunity to remedy this.

Geographic market assessment

Is there a single national "trunk market"; are current boundaries of CELA correct? Is wholesale competition emerging in other geographic areas?

57. We think these are fair questions.

[57] For example, "The technology will be tested as a shared mobile and fixed broadband platform", http://www.mediaweek.co.uk/news/1071699/Everything-Everywhere-partners-BT-trial-4G-broadband/

[58] Indeed as Ofcom recognises in its reference of SLA issues to OTA wherein it makes clear that it will consider further regulation if necessary. (ibid)

Product Markets

58. Ofcom raises the questions: Are symmetric leased lines, mobile and LLU backhaul all in the same market? Is differentiation by speed still right? Can ADSL products substitute for some leased lines products? Are Traditional and Ethernet leased lines still separate markets? Again, we consider these valid questions for assessment.

59. These question gives rise to a variety of associated considerations. We believe that differentiating between the "in scope" and "out of scope" uses for which the current regulated PIA can be used, is already blurred and will be increasingly so[59]. For example[60], it is unsustainable for PIA to continue to differentiate between:

    i. FTTC and cellular local access connections: from the FTTC street cabinet to the exchange and connecting from a radio base station to the exchange;

    ii. An FTTC cabinet (or "village pump[61]") serving multiple premises and a Radio Bases Station service multiple premises;[62]

    iii. Public WiFi serving multiple premises and a Radio Base Station serving multiple premises. Analysts already view Public WiFi as a potential competitor to 3G and 4G operators (see enclosed Telco 2.0 report[63]). Here BT is free to use its own ducts and poles for backhauling its Public WiFi services. It has the advantage of self-supply unless a suitable PIA remedy is available for mobile rollout;

[59] And in practice it would be difficult for BT to prevent CPs from using PIA for leased lines [§7.54]
[60] This is not meant to be an exhaustive list, but rather illustrative.
[61] See BDUK etc
[62] Ofcom has already clarified that "*our intention is that PIA should be used to deploy NGA networks serving multiple premises regardless of type, for example a geographic area such as a housing estate, an industrial estate, village or town.*" [§7.64 of the WLA]
[63] ibid.

iv. Service delivered via femto and small cell solutions in the home and business environments (fed either via Ethernet and/ or broadband) and a public access small cell.

60. Furthermore, Ofcom also gives some consideration to these aspects in the WLA:

> "*...the expectation is that both LLU and VULA could use a common backhaul link from any local exchanges where they overlap.*" [§8.45]

61. And remarks that:

> "*...our view [is] that, over the next few years, there would be a single market for all broadband speeds, including super-fast broadband.*" [§8.27][64]

62. Accordingly, we consider an assessment of product markets is relevant.

Evolution of Business Connectivity Markets

63. Ofcom asks *Have business connectivity markets changed since the last review? If so, how? How might business connectivity markets develop during the next four years?* We broadly agree with the analysis Ofcom sets out in its LLCC which identified a number of themes:

> ""*• The UK communications market is seeing increased demand for bandwidth in the backhaul network, to support higher speed broadband services and the associated growth of internet traffic.*
> *• The Traditional Interface Symmetric Broadband Origination ("TISBO") market is going through a period of steady decline. BT is not expecting any significant*

[64] And hence that the pricing of BT's VULA product would be constrained by Current Generation Access services and cable.

volumes to remain on the Digital Private Circuit Network ("DPCN") platform beyond 2012/13 and expects most customers to have migrated to other products such as Ethernet.

• Openreach is continuing to develop its Alternative Interface Symmetric Broadband Origination ("AISBO") portfolio. It is currently undertaking a significant investment in a national backhaul network based on Wave Division Multiplexing ("WDM") technology, to support new products such as Ethernet Backhaul Direct ("EBD"), which are designed to meet the growing demand for backhaul capacity. The networked nature of this product will mean greater efficiency and lower costs in backhaul provision.

• BT has recently announced an ambitious Next Generation Access ("NGA") programme, which is likely to further boost demand for capacity to support high speed broadband services. "

64. And we have the following additional comments:

i. It is clear that data growth over mobile and nomadic use is likely to be a key demand driver for bandwidth in backhaul. And as we say, the roll out of next generation mobile networks requires reliable, cost effective and competitive Ethernet backhaul capacity[6566] .

ii. As deployment of higher speeds for access and cellular grow, the demand for higher speeds further will increase. Hence >1G and also WDM increases in

[65] And others, such as C&W, Geo, Fujitsu etc have highlighted PIA for their own deployment plans.
[66] Indeed, PA reported to Ofcom in 2007: The number of base stations and therefore the number of backhaul links will increase dramatically as micro- and pico-base stations are deployed as the norm to meet future growth in wireless communications traffic.• The number of base stations, and therefore backhaul links, in urban areas could increase by a factor of between 10 and 20.- The majority of urban cellular coverage and capacity is currently provided by macro-base stations. It is likely that in 10 – 20 years from now, the majority of cellular coverage and capacity will be provided by micro-cells, which cover much smaller areas; the typical micro-cell range is only 25% of the typical macro-cell range.• If Metro-WiFi networks become prevalent, then the number of base stations and backhaul links could increase even further. WiFi cell ranges are typically only 10% of macro-cell ranges, suggesting contiguous WiFi coverage could require up to 100 times as many base stations and associated backhaul links.

importance as demand grows. We see the wider availability and deployment of higher speed/lower cost BB services being used for business use. E.g. SHDSL/EFM using bundled pairs of MPF copper. Also, we expect business usage of higher speed services such as Openreach FTTC (40M) and FTTP (100M) with credible to 15M up speeds (subject to coverage).[67]

iii. As technologies such as higher speed cellular, WiFi and FTTC deploy wider, the traditional model of the 'central office' becoming the 'hub' is changing, with higher bandwidth feeds needed for such accesses. Hence to some extent, the differentiation is becoming blurred between the end usage of circuits. Hence differentiation between NGA deployment under WLA and Business Connectivity becomes blurred with consumption of (what is effectively the same) technology increasingly irrelevant.

iv. Ofcom remarks that the LLCC are being set in a dynamic and evolving market environment. We agree that the overall communications environment is a dynamic and evolving market. However, equally, we see opportunities for delivering greater "dynamic" evolution, in particular relating to PIA.

v. In such a dynamic environment, it is likely that alternative operators wanting to developed their own solutions / services will see that it is important to have a mixed economy of efficient solutions (PIA, fibre based products, DSL products, traditional leased lines circuits, Ethernet circuits). It is important not to foreclose particular competitive options.

vi. The general trend of continued growthin bandwidth requirements highlights the unattractiveness of incremental pricing of leased lines.

[67] Meanwhile, BT continues to accelerate its fibre rollout announcing that it is to step up the roll-out of its superfast broadband, making it available to an additional one million homes and businesses by the end of next year. Hence reinforcing its presence (landgrab) in access infrastructure (e.g cabinets). Since the alternative business case is improved with a mixed deployment of FTTC, Business Connectivity (backhaul, cellular etc), the absence of an unfettered PIA limits the case for alternative deployment at this early stage, accentuating the BT advantage.

Concluding Comments

65. In its Strategic Telecommunications ReviewStatement[68] Ofcom concluded that the establishment of an Access Division (Openreach) would, amongst other things:

> *"deliver a comprehensive suite of the access products on which wholesale customers rely including... Ethernet and SDH backhaul products and sub-loops specific wholesale backhaul services which are critical to effective competition including Ethernet backhaul."*

66. We believe that Ofcom must now underpin the next phase of backhaul competition, beyond that established in the Statement, and adopting the same principles established therein (of competition at the deepest level) which is at the heart of Ofcom's approach to Next Generation Access.

67. As Ed Richards concluded at last years FT World Telecoms Conference:

> *"Our approach – focusing regulation on enduring bottlenecks and deregulating downstream – remains, we believe, the best way to allow investment decisions to flow in a way that benefits consumers and supports innovation and investment."*[69]

68. We see this approach is as relevant to the Business Connectivity Market as it was to the WLA.

Telefónica UK Limited

16 June 2011

[68] http://stakeholders.ofcom.org.uk/binaries/consultations/telecoms_p2/statement/main.pdf
[69] Ed Richards, FT World Telecoms Conference, November 16,2010, http://media.ofcom.org.uk/2010/11/16/ft-world-telecoms-conference/