## **BCMR CALL FOR INPUTS NON CONFIDENTIAL**

**JUNE 2011** 

# **SUMMARY**

- PPCs continue to be sold in significant volume. PPCs are an important access product, regulatory rules surrounding their supply need to be maintained for the period of the next market review (and beyond). Forward looking focus needs to be placed on continued cost effective provision and maintenance of the (expected) service wrap.
- 2. New regulatory focus needs to be placed on effective migration / switching for business services which offer a combination (as required) of minimised service outage / customer disruption, low cost installation, movement from and between: BTW and Openreach services; to other BTW services; from BTW to Openreach and to CPs own eg LLU. Whilst migration / switching has the potential to be a wide issue it is of utmost importance for PPCs as BT closes its PPC platform. It is essential that migration options are planned, agreed and offered during the coming review period and that Ofcom has in place suitable backstop powers to intervene in the event of failure by BT to act.
- 3. Ofcom needs to relook at the competitive situation for the supply of above 1Gbit/s bandwidths. Higher bandwidth demand is growing for both end user sites and CP backhaul bandwidth. Cost effective access to backhaul (between local exchange and a CP PoP) is essential for CPs to be able to provide a range of downstream services. We increasingly require resilient backhaul options. The number of exchanges at which we require above 1Gbit/s backhaul is growing. Over the period of the review higher than 10Gbit/s will also be required. Whilst BT remains at a cost (and availability) advantage for backhaul services many downstream retail markets will see weakened competition. Backhaul regulation must also address the pricing issues associated with economies of scale and the likely event that CPs and BT will require backhaul at different bandwidths<sup>1</sup>.
- 4. Exchange space is fundamental not only to the WLA market but also to the BCMR. Exchange space must be provided and sold on an Eol basis. Presently the WLA Charge Control is proposing a RPI+7.5% increase to space charges which we don't believe is justified.

<sup>&</sup>lt;sup>1</sup> CPs are now seeing demand for 10Gbit/s grow whilst BTLOB are likely to be considering if not already using 40Gbit/s. EOI etc will not work if BT and CPs require different bandwidths.

Openreach has space availability issues which will hamper the ability of CPs to compete effectively against BT.

We welcome the opportunity via the "Calls for inputs" to inform Ofcom's thinking in advance of a major market review such as the BCMR. We look forward to exploring with Ofcom further the areas that we consider key and which will require resolution via regulatory remedies /initiatives as the output of the market review.

Question 1: Do you agree with our "no material" change consideration as set out above? In particular do you agree with Ofcom that:

- 1.1 The characteristics of Traditional and Alternative Interface products are such that separate markets continue to exist for TI and AI products?
- 1.2 We should retain the main bandwidth breaks for traditional interface products but combine 34/45 and 155 Mbit/s services?
- 1.3 VPNs continue to be outside the business connectivity markets?

Please explain why.

We agree with Ofcom's conclusion of "no material change" in the structure of the markets since the last review period. TI and AI are distinct service markets. TI services continue to be regarded by end users as offering superior functionality / service characteristics and service wrap.

The future TDM products to be developed as part of the Openreach Industry Commitments (TDM access bearers and TDM backhaul bearer) will ensure long term availability of TDM characteristic for end users that continue to require and value them.

We do not agree with the proposals to combine the 34/45 and 155Mbit/s bandwidth breaks unless Ofcom is able to prove that the break in substitution between these bandwidths no longer exits. Market definition and SMP designation must be based on robust and sound market analysis. Cable&Wireless Worldwide regards VPNs as key business services. VPNs are the predominant service that we sell to our retail customers. Our VPN services are reliant upon the availability of input services regulated by the BCMR. Ofcom differentiates VPNs from leased lines and views VPNs as downstream services to leased lines. We agree that VPNs (which provide communications between multiple points and offer intelligent routing between them) are higher in value chain than leased lines. However it is not correct that retail leased lines are inputs to retail VPNs. Today PPCs and other wholesale products are primarily used as inputs for retail VPN services. Ofcom needs to consider the relevance of the retail market assessment it makes within the market review.

Question 2: What are your views on the extent to which broadband products can be used effectively for the delivery of business connectivity? How do you think this might change over the next 3 to 4 years?

In the context of the low bandwidth market it is our view that a degree of substitution from leased line type services to ADSL services has occurred. In our view this is one way substitution ie consumers that had previously purchased retail leased lines as they were the only business solution switched away to (lower cost and lower service attribute) ADSL services as leased lines over catered and over charged for their requirements. Except where local exchanges still offering 20CN services are upgraded one would not expect much more substitution from leased lines to ADSL.

Over the next period it is conceivable that some low bandwidth and higher bandwidth (10Mbit/s) services (leased line / VPN access) are substituted by other services such as new NGA products – possibly residentially targeted and also business specifically tailored, and EFM. We expect Ofcom to consider these within the review. From an operational and commercial perspective when supplying retail VPN services we will determine the service design balancing the customer requirement with the best and lowest cost input option. A customer will have a mix of access inputs which will depend upon availability of access types (our own and that of our suppliers) and suitability of access types across the geography of the VPN network the customer requires. The key issues that a customer and CP will consider when deciding which inputs are relevant options are: available service levels, the reliability of the product and the stability of the product.

It is very difficult to predict the extent of how broadband (ADSL, EFM and NGA) could be used effectively over the coming period with the exception of ADSL which is already a proven and accepted option. BT has included 10Mbit/s Ethernet retirement within its roadmap therefore alternative options could fill that bandwidth gap. EFM is presently emerging as a low bandwidth (sub 10Mbit/s) alternative. EFM has been rolled out by BTW and is being promoted as the low bandwidth business solution. At the same time NGA is being rollout by BT. Although BT is marketing NGA as primarily a residential service it has the potential to become a business access input. Product pricing and consumer experience will be the key influencers.

Deciding which access solution to invest in is surrounded by risk. Ofcom should strive to provide CPs with greater regulatory certainty to enable investments to be made during the next review period. Presently BT has the winning hand. Pricing of EAD LA suggests that CPs should move closer to the customer and site themselves at Local Exchanges - considerable investment is required in order to match the EAD LA cost base of BT at circa 800 exchanges and the regulatory provision of backhaul is uncertain. LLU Operators have the potential to extend their product range with EFM. To match BTW EFM coverage some 800 to 1000 LLU sites would require EFM upgrade / conversion – considerable investment is required to achieve this and again backhaul is an issue. Any investment in EAD LA and EFM needs to be made in consideration of potential substitution by NGA access. CPs would benefit from additional regulatory rules around the development of business variants of NGA as an outcome of this market review. Of com ought to mandate rules that facilitate forward planning by CPs to offer NGA business services should they become available. Such rules would include a requirement for the NGA product roadmap to detail the launch of business variants, the functionality / service wrap of the NGA business products, the exact location of exchanges where NGA business services will be available. Ofcom should formally stipulate that all of the above criteria need to be available "x" months in advance of the product being offered for purchase in order to enable CPs to make the necessary network rearrangements including ordering capacity to allow simultaneous retail launch. In the 2002 Access Guidelines Oftel sets out the rule "If using a wholesale product requires competitors to make significant technical adjustments or to build out their networks, sufficient time between publication of the RO and launch of the new wholesale product should be allowed for a reasonably efficient operator to make the necessary preparations." Ofcom could usefully discuss, update and reinforce this provision for the BCMR.

Question 3: What are your views on the existence of a break in the market for Ethernet services provided at speeds above 1Gbit/s; and the extent to which WDM based products are part of the business connectivity market? If you consider they are, do you think they are part of the Traditional Interface market, the Alternative Interface market, or constitute a separate market within the business connectivity market? How do you think this might change over the next 3 or 4 years, give the rate of growth in bandwidth demand?

Cable&Wireless Worldwide believes that continuation of the current situation which leaves BT unregulated for services above 1Gbit/s is untenable. There has been ongoing debate between CPs and BT/OR regarding the relationship between EoI and SMP obligations. Ofcom needs to close this debate with clarification. At the same time OR has adopted pricing on application which gives rise to more EoI, practical and competition concerns.

Above 1Gbit/s services are increasingly being requested for end users access. Above 1Gbit/s services will soon become the norm for backhaul. The general increase for greater end user bandwidths (broadband and general access – note that 100Mbit/s Ethernet access is becoming the primary Ethernet bandwidth) requires that backhaul bandwidth keeps apace with access growth. Our demand for 10Gbit/s backhaul and resilient / second backhaul links has increased and is forecast to increase further over the coming period. This is a substantial change from the last review. Converged carriage of backhaul by the larger providers is likely to see demand for 40Gbit/s and higher backhaul bandwidth over the period. Regulation of these bandwidths is as important as regulation of 10Gbit/s. Requiring Eol for above 1Gbit/s service will only address competition issues if BT itself is using the same bandwidths as its competitors. This review needs to consider the implications of bandwidth pricing and the differing requirement of CPs for higher and lower bandwidth backhaul. Mandating Eol will be ineffectual if CPs for example purchase 10Gbit/s whereas BT itself purchases mainly 40Gbit/s.

We regard above 1Gbit/s services as an extension of the AI market. 1Gbit/s Ethernet is now commonplace, but demand is now growing for multiple Ethernet services between the end points. Demand requires the ability to grow capacity quickly (without new infrastructure fibre build), and the use of non-Ethernet protocols, such as FibreChannel. Point to point WDM services are the natural successor to a current AISBO market product, and we believe they should be regulated in the same

way – equipment box-fibre-equipment box regardless of the speed or quantity of services the equipment box delivers to the end points.

Question 4: Do you consider that:

- 4.1 There is still a separate market for trunk segments provide with a Traditional Interface which warrants SMP assessment for the purpose of considering ex ante regulation;
- 4.2 The trunk routes identified in the last market review are still relevant to inform the definition of the trunk market; and
- 4.3 The analysis and identification of Trunk Aggregation Nodes carried out in the last BCMR are still relevant for competition and market entry.

Please explain why.

Cable&Wireless Worldwide continues to purchase PPC trunk segment for a significant proportion of its PPC circuits. Over past years we have attempted to rationalise our PPC circuits in order to minimise circuit length and trunk utilisation. Despite these ongoing programmes we continue to rely upon BT for considerable amounts of trunk services. We do not see evidence that would point to contrary findings for trunk services since the last review period.

We do not believe that the market definitions of trunk / TAN to TAN have worked well. We believe that the rationale behind the TAN to TAN proposals were sensible however the outcome has proven too complicated. We believe that it was Ofcom's goal is to identify the locations / routes where CPs have little / no choice other than to purchase transport from BT. It is necessary for Ofcom to modify the current definition and we propose that a workable definition might simply be that trunk is equivalent to a non adjacent TAN location. This assumes that the UK is build up of a patchwork of adjacent TAN areas as already defined by Ofcom. Connections into/ between TAN areas (those "touching one another") should be permitted and be regarded as access / terminating circuits. Whereas a link into a TAN, which is not geographically adjacent to the starting TAN boundary, would be regarded as trunk.

Since the last market review Openreach has offered its new Ethernet product portfolio on more restrictive terms. Openreach is insistent on restricting the distance that circuits can go, and forcing CPs to build more POPs to pick up circuits that are only 5km long! When attempting to migrate from old WES to new EAD the alteration in definition means that a circuit which was permitted to be supplied under WES would not be provided under EAD. Openreach has recently proposed a grandfathering approach would allow a previously installed circuit to be migrated to an EAD circuit. The provision of new circuits however will remain problematic with complicated routing proposals yet to be fully outlined by Openreach. In our view any solution which does not permit simple ordering and comprehension of capability is a barrier to effective competition and an ineffective regulatory solution. In absence of Openreach delivering a simplistic tool to determine when an EAD circuit can be ordered we advocate an urgent revision of the TAN to TAN / trunk route definition.

Question 5: Do you think that separate markets could now exist for access and backhaul products? If you do, please explain why.

We believe that there are presently different supply and demand issues for access and backhaul products.

### Backhaul

Backhaul products are required at high bandwidth between a defined number of locations (BT exchange buildings to CP PoPs). When installing backhaul for our own services we use our own fibre wherever it exists. In a large proportion of exchanges we do not have our fibre presence and neither do alternative suppliers other than Openreach. Where we or other CPs do not have existing fibre to provide a specific backhaul link we consider the economics of building a new link. The economics of supplying backhaul services are tightly limited by both the Openreach regulated service prices for EAD which also forms (unless BT is in fact using higher bandwidths which are unavailable to CPs) the transfer price that BT itself uses for the cost stack for its downstream services (eg wholesale broadband against which we compete). When considering the economics of self build for backhaul CPs will have in mind the existing 1Gbit/s charge, inputted 10Gbit/s charges and potential WDM costs for BT.

Even where we do have our own fibre to a location - that may not be enough to enable us to provide our own backhaul in its entirety. Increasingly the availability of backhaul on a resilient basis is essential. In order to provide for diverse routing for resilient backhaul (akin to SDH expectations) it is necessary to source a separate fibre route. For these resilient connections it is not economic to install additional new fibre routes. For sites at which we are not present, and / or where we require a second link we seek to purchase from Openreach or other suppliers. In order to obtain resilience we would ideally be able to purchase two separately routed services from Openreach or alternatively a service from Openreach and another service with a diverse reassurance from another supplier. Therefore when examining the availability of fibre between backhaul locations resilient supplied fibre must be an analysis criteria.

We conclude that backhaul supply is not competitive nationally.

### Access

Access services have similar economic characteristics. Our ability to supply services relies upon wholesale inputs from Openreach unless historically our own fibre has been installed or installed suitably nearby. Even at very high bandwidths we believe that large proportions of the UK would not have competitive / or the potential for competitive alternative supply. We disagree strongly with the proposals to exempt BT/OR for the provision of high bandwidth access services. A blanket national exemption is unjustifiable.

### Mobile backhaul

There are different characteristics of access and backhaul but in practice the requirements and competitive conditions associated with mobile backhaul probably looks more similar to access than they do to broadband backhaul.

The sort of broadband backhaul requirement satisfied by BT through products like EBD has a very specific set of characteristics:

 The location from which the backhaul is required is always an established BT network location; often it has been established for years. As such BT already has multiple duct and fibre routes from the location back to other nearby BT sites;

- There is a requirement for many different services (e.g. broadband, business connectivity, voice) and often several different operators (as many exchanges have 3 or more LLU operators in them as well as BT). This means that in today the total demand out of the particular site is likely to be in the order of several separate 1Gbit/s circuits and in addition at least one and possibly more 10Gbit/s circuits;
- Some of the services, particularly business connectivity but also broadband require diversity of access – because both customers demand it and BT's diverse routes mean that it can provide it.

As a result of the requirement for many high bandwidth circuits BT is able to deploy DWDM systems between its exchanges to satisfy the demand. This has provided a much lower unit cost than for a single lower bandwidth connection.

Some Communications Providers have built their own fibre close to some of these locations either for voice services, business connectivity services and for LLU. The high bandwidth requirements combined with historically high priced wholesale services made it economic in some cases and regulatory policy drove it in others. However now that BT provides Eol backhaul services using its low cost DWDM infrastructure it is less common for new fibre routes into these locations to be economic. Even where fibre already exists the need for diverse routes means that there are a relatively small proportion of locations where there are sufficient alternative supply options for there to be effective competition.

Mobile backhaul is different. It is backhaul in the sense that it connects one network site (the mobile cell site) back to another network location (the mobile switching centre) just like in the case of, for example, broadband backhaul. However the nature of the demand and supply are different.

Mobile cell sites have been built more recently than most BT locations and the mobile operators don't tend to have their own fibre connecting them up, instead they have relied on other Communications Providers, particularly BT to provide the connectivity. Until recently demand has been relatively low bandwidth, often 2Mbit/s circuits. At this bandwidth many have been able to be connected with copper rather than fibre. Although mobile data has recently caused bandwidth to

increase they tend to be increasing to 10Mbit/s or sometimes 100Mbit/s. Also while there is a degree of mast sharing between operators it is more common that only a single operator is present at one particular location, in some cases a couple, but never enough to drive the deployment of DWDM equipment.

This means that the demand profile looks closer to that of a business customer, in the past requiring bandwidth to support multiple voice lines and a bit of low bandwidth internet which has now expanded that to meet the higher bandwidth demand of today's IT and communications solutions.

The underlying competitive economics too should be similar to those for access. The crucial factor has been who has their infrastructure closest to the mobile cell sites. However before the existing regulation from the business connectivity market review was established BT was able to build up a dominant position in the supply of backhaul to the mobile operators because of its ubiquitous copper network and a fibre network with far greater coverage than any other operator. Having built up that position it has been very difficult for anyone else to win mobile backhaul contracts because it has designed its existing contracts in a way that makes switching supplier both costly and difficult.

In conclusion, it is possible that there are separate markets for access and backhaul (but where backhaul is more properly considered as connectivity between and into BT exchanges). If these are two separate markets then it is more likely that mobile backhaul would fall into the access market rather than the backhaul market. But further, Ofcom should seek to understand how it is that BT has been able to maintain such a dominant position in the supply of mobile backhaul services as it is possible that in fact those reasons mean mobile backhaul is in a market of its own.

Whether or not mobile backhaul is in a market of its own we believe that Ofcom should look closely at the ability to novate and migrate backhaul services in order to ensure that mobile operators benefit from effective competition for their contracts.

Question 6: Do you think that separate markets could now exist for broadband backhaul products and, separately, for mobile backhaul products? If so, please explain your reasons.

In the same way that the location of BT exchanges drives a market for backhaul we suspect that mobile cell sites drive a distinct market for mobile backhaul. Please see our answer to the previous question. The products required to meet backhaul requirements are converging on the same Ethernet based product but the ability to supply the market rely on existing network presence or the ability to economically install new network.

The key issue for improving the competiveness of mobile backhaul is the ability for mobile operators to novate and migrate existing contract to CPs and to migrate from current generation services to Ethernet based services without prevention (via contract) restriction migration to a BT based solution.

Question 7: Do you think there are other sources of demand for symmetric broadband origination outside the services mentioned above which are relevant to our assessment? If so, please explain your reasons.

Ofcom ought to look at the demand / opportunity for Ethernet First Mile (EFM) as an origination solution. In our view the upstream regulatory input for EFM is LLU, but as EFM has the potential to be a relevant business access input it deserves consideration.

EFM and EAD LA also drive backhaul requirements which we expect will be captured within the broadband backhaul discussion.

Question 8: Do you agree that the three parts of our analytical approach discussed in paragraph 1.31 are still relevant and continue to provide an effective tool for assessing competitive conditions and for considering regulatory obligations? In particular, do you agree with Ofcom that:

8.1 the approach to identifying geographic markets used in the last BCMR is still appropriate, or is there any additional perspective that we should appraise to inform our competition assessment?

8.2 the definition of the CELA from the last BCMR is still relevant? And

8.3 there continues to be a trunk market which is national in scope?

Please explain why.

In response to the last market review we provided evidence that demonstrated our self supply new dig distances were far shorter than the 200m distance used by Ofcom. Looking forward we suggest that further factors have compounded the distances which CPs are willing to build in order to connect new customers. We believe that Ofcom should request details of all new self supplied customers installation that CPs have deployed over the past 12 / 18 months to determine the true extent (rather than a hypothetical assumption) of CP new network deployment to end users. We believe that this data would not be onerous to obtain as CPs will contract this work out and it can simply be obtained from their suppliers.

We believe that the CELA zone is too extensive and should be shrunk back.

We continue to believe that the trunk market is a national market. It is important that Ofcom does not cause the need for incremental investment in PPC services (which are no longer in growth phase) due to changes in regulatory policy unless there is clear evidence of market changes which in turn demand a change in regulation.

Question 9: Do you think that Ofcom should consider the extent to which other local geographic markets exist in the UK outside CELA, and excluding Kingston upon Hull? Please explain the reasons for your answer.

As discussed in response to Question 8 we do not agree that 200m represents a reasonable dig distance. We do not regard there to be further geographic markets for BCMR services. We are sure that evidence, such that we propose Ofcom requests, will identify that CPs do not find it economic to build new infrastructure in competition with Openreach access services.

Should Ofcom consider the need to examine local geographic markets further than we consider it essential that Ofcom considers that ability of CPs to supply / reach individual customer premises. Analysis would including the plotting of business premises, identification of fibre already serving a given site, a robust incremental dig assumption. Ofcom must then determine if a sufficient number of customer locations cluster together to determine a meaningful area of aggregation in order to warrant determination of a specific geographic market.

Question 10: In the last BCMR, we found no SMP provider in the market for high bandwidth 622 Mbit/s TISBO and high bandwidth AISBO provided at speeds above 1Gbit/s in the UK and, separately, in Kingston upon Hull. Do you think that deregulation has worked well in these markets? Do you think that the competitive conditions in these markets have improved, or do you consider they have deteriorated? Please explain, providing examples where appropriate, based on your company's first hand experience.

We believe that the finding of no SMP for 622Mbit/s TI services was as a result of demand moving from 622Mbit/s TI services to the far cheaper priced 622Mbit/s AI product. At the time of the last review CPs were able to purchase two 622Mbit/s AI circuits for less than a single TI circuit. This does however not mean that demand for the 622Mbit/s TI service did not exist. Openreach via the OICs is now developing both a TDM access bearer and a TDM backhaul bearer in part to meet the ongoing requirement from CPs for these services, though it is worth observing that Openreach have taken nearly 3 years to reach the point of development, despite having an obligation under BCMR1 to deliver an AISBO 622 service. Ofcom via the BCMR imposes specific obligations upon BT to provide listed services yet BT is been able to withdraw products without simultaneously introducing a successor product on the same or better terms. We believe that where Ofcom specifically outlines the services to be provided that BT must provide them. Regulation should not be avoided by product cessation / retirement. Future proof regulation should allow for a successor product to be provided on similar terms.

As discussed earlier demand for above 1Gbit/s services has become far more established than that which was in evidence during the last review period. Ofcom will now be able to obtain firm data with respect to current demand and forecast demand. We caution Ofcom around only considering demand for 10Gbit/s. Over the period of the next review and perhaps already BT itself will be requiring above 10Gbit/s backhaul. Offering high bandwidth services with Eol rules will alone not align competitive abilities. The pricing differential between these bandwidths will be critical whilst CPs demand does not justify above 10Gbit/s and BT itself purchases even higher bandwidths.

Question 11: In the last BCMR, we also found that BT had no SMP in the CELA for the provision of wholesale leased lines (PPCs) at speeds above 2 and 8Mbit/s and up to, and including, 155Mbit/s. Do you consider that deregulation has worked well in these markets? Do you think that the

competitive conditions in these markets have improved, or do you consider they have deteriorated? Please explain, providing examples where appropriate, based on your company's first hand experience.

We believe it might still be too early to conclude that deregulation has worked to the benefit of competition in these markets. We can observe that there has not been a refusal to supply deregulated services or that there have not been price increases for these services which are out of line with the rest of the UK. This might suggest that all is well. However the fact that no complaints have yet been brought does not necessarily mean that there are no underlying issues resulting from the deregulation.

While Ofcom has deregulated a geographic market any impact is likely to be concealed by the fact that services are more usually purchased on a national basis. In addition impact will also be concealed by the longer term contracts that are typical for these services.

Question 12: In the last BCMR, we found that BT had SMP in the market for analogue and low bandwidth digital retail leased lines and imposed SMP obligations on BT as a result. The remedies were designed to ensure the continued availability of these legacy products at reasonable prices as well as to provide transparency and regulatory certainty to BT's competitors in this market. Do you have a view as to how these remedies have worked? Do you consider that we should continue to impose regulatory obligations on BT in this market if we were to find SMP or we should rely on wholesale remedies alone? Please explain your answer.

We believe the remedies imposed in the retail market have been a vital part of ensuring that BT hasn't been able to leverage its dominance in this area. BT's retail market share is expected to remain high and we see no reason to relax the remedies in the retail market should a SMP finding be confirmed once again.

BT has not been able to demonstrate that its lower bandwidth digital leased line retail products are replicable. Two of the biggest barriers to replicability, namely the issues around Points of Handover ("PoH") and Circuit Routing (which we identified in our response to the June 2009 replicability Consultation) have not yet been addressed. While some progress has been made on charging for

PoH (as part of a separate consultation exercise), the issue requires a review with regard to replicability. Further significant obstacles remain regarding the issue of circuit routing, and much progress is required to develop the existing Wholesale products before BT's retail offerings could be considered in anyway replicable.

In addition to our concerns over our ability to replicate BT's Retail products, we also have ongoing concerns over the robustness of BT's internal compliance regime. Ofcom's 2009 replicability proposals to allow BT not to have to publish a reference offer was conditional on BT complying with internal governance controls. Ofcom was thereby recognising that replicability alone was not enough to justify the relaxation of the publication obligation. Since the 2009 proposal, Ofcom has issued its December 2010 Wholesale Calls Statement of Objections. The statement relates to the analogous situation where BT stopped publishing a reference offer for wholesale calls and relied solely on internal governance controls. The Statement of Objections refers to significant and systemic weaknesses in BT's approach to the issue of internal governance, with internal rules apparently adjusted on a bid by bid basis until BT's preferred sales outcome was achievable. We are concerned that there is little to stop BT doing the same in relation to governance controls for leased lines.

As Ofcom has indicated, the need for a robust internal governance regime underpins the whole concept of replicability and with such serious and well founded doubts emerging since the last consultation was published, the indications are that Ofcom cannot safely rely on BT's internal governance regime. To this end we would like to impress upon Ofcom the continued need to impose remedies in the retail market preventing BT from setting unpublished bespoke prices for these services or bundling Significant Market Power (SMP) and non SMP products together in one pricing package.

Question 13: What are your views on how the current remedies have worked in promoting downstream competition?

We regard the lack of / clarity of regulation for above 1Gbit/s services is starting to hamper competition.

We believe that Openreach and BT use evolving product development to hamper competition (as regulation is generous in allowing BT innovation). For example Openreach via the EAD product has sought to eliminate the distinction between access (WES) and backhaul (BES) which is detrimental to backhaul pricing.

We believe that Ofcom needs to be firm in the future that when a product is mandated or committed to such as via the OICs that Openreach must deploy the promised product and not be permitted to back track citing volume / commercial issues (as the trade off requiring the OIC was removal of system separation obligations that saved significant costs for BT.).

Question 14: How effective have the current remedies been in addressing the market failures identified in the last BCMR and in supporting competition and market entry? Please elaborate with some examples.

When implemented we believe the new PoH rental charges will contribute positively in supporting competition in the provision of leased lines. However we do observe that the issue was raised in early 2008 and yet now in June 2011 we still await proper resolution through Ofcom's ongoing POH project. Similar focus needs to be given to Ethernet space requirements.

The modified definition and regulation of trunk delineation has been improved the ability of CPs to provide competitive services and potentially reduces the number of nodes which CPs need to support for a product that is no longer in growth.

As a result of its history and the detailed price determinations resulting from the 2002/3 PPC dispute regulation of PPCs is considerably detailed. We have noted across a number of product lines a trend emerging from BT / Openreach of devising new chargeable services for services previously without charge. We are concerned that the costs of providing the previously uncharged for service are already attributed to charged for services and BT is in effect levying a second charge for a service which already has its costs recovered. A recent example is DTO charging.

Ethernet as a key future product has however been subject to greater upheaval which is permissible under the remedies set by Ofcom. The issues are being resolved via the industry forums but uncertainty holds back competitors from pursuing sales amidst confusion around migration / product capability – permitted use / pricing – special pricing.

Question 15: How effective have the regulated access products been from an operational perspective? Please provide examples where appropriate to illustrate your answer.

Operationally we have a list of observations of how BT / Openreach's supply of PPCs and Ethernet services are made complicated affecting our ability to operate to our commercial optimal:

- OIC have been painfully slow to be implemented
- ECCs are excessive and we feel that BTLOB is not treated the same. We believe that ECCs are levied when they should not be.
- We want BT / Openreach to follow NICC standards for products which we work with them to develop.
- We are concerned about the move of product repair for PPCs from BTW to BT Operate.
- We suspect that BTLOB use and pay for Project Management and the Director Services Offices in a superior manner to CPs and that this is unfavourable for us.

Question 16: Do you consider that the current set of remedies should be simplified? If so how?

No. We would argue that more detailed regulation is necessary although this may be more readily achieved via the charge controls and greater transparency via additional reporting in the Regulated Accounts.

We look forward to the proposed generic guidance from Ofcom on cost orientation. We hope it will clear up the application of the obligation and the manner in which Openreach must recover services specific costs and approach pricing and cost attribution to a wider portfolio of services.

We also need additional guidance in relation to charge control compliance in particular where BT/ Openreach introduce new / replacement services which may already have their costs accounted for within the charge control and technically amount to additional revenue extraction from CPs. Further we think that Ofcom should specifically look at the issue of discounts on the functioning of charge controls and ensure that they are not favouring downstream BT business over external customers.

Question 17: Do you consider that the scope of the charge control was correct in terms of the products and services subject to the control? Has the charge control been effective? Looking ahead, what changes, if any, do you consider would be appropriate for any further charge controls?

For the last controls Ofcom accounted for old technology costs as Openreach was in transition to its new way of working for Ethernet services. The new lower cost technology cost base can be used in the next control.

Much greater scrutiny needs to be placed upon the reporting that BT does regarding its regulatory cost base – which Ofcom then bases its charge control calculations. Time after time (when pressed for retrospection on over charging) BT in hindsight finds large errors with its financial figures.

Question 18: What are your views on the role that passive remedies could play in this market for the promotion of downstream competition? In your view, what implications might adoption of passive remedies have on the provision of active remedies?

We regard passive remedies to have niche complementary application to the current wholesale offerings. We do not expect – should passive remedies be implemented – that services would be switched from the existing products to PIA en masse. In certain, and limited situations the ability to purchase PIA for use of network build to supply leased lines services (and not restricted to) would be beneficial, particularly where product innovation by BT is moving too slowly, or is being delayed or blocked. For PIA (or any infrastructure investment) to be successful the fixed costs need to be spread over as many services as possible.

Question 19: Have business connectivity markets changes since the last review? If so, how? How might business connectivity markets develop during the next four years?

At present there is a move from 10M to 100M Ethernet as the key bandwidth. Openreach is promoting this migration via its pricing.

NGA substitution could occur but will be dependent upon the service being proven and available at business locations.

EFM potential has the potential to offer an alternative to PPCs and ADSL for certain users.

CPs and end users will be giving thought and preparation for PPC platform closure.

Mobile operators with greater demand for data services are moving to Ethernet transport.

Question 20: Do you have any comments about arrangements for withdrawing regulations as TI services reach the end of their lives?

BT's current timetable for low bandwidth TI platform closure is 2018. This timetable has been extended out a number of times. Volumes of TI services remain significant and consequently we do not see removal of TI regulation relevant for the coming review. TI regulation needs to be kept in place with the same rigour as exists today.

Question 21: Are there any other issues or views you would like to put forward that are not mentioned in this paper?

New regulatory focus needs to be placed on effective migration / switching for business services which offer a combination (as required) of minimised service outage / customer disruption, low cost installation, movement from and between: BTW and Openreach services; to other BTW services; from BTW to Openreach and to CPs own eg LLU. Whilst migration / switching has the potential to be a wide issue it is of utmost importance for PPCs as BT closes its PPC platform. It is essential that migrations options are planned, agreed and offered during the coming review period and that Ofcom has in place suitable backstop powers to intervene in the event of failure by BT to act.

Exchange space is fundamental not only to the WLA market but also to the BCMR. Exchange space must be provided and sold on an Eol basis. Presently the WLA Charge Control is proposing a RPI+7.5% increase to space charges. Openreach has space availability issues which will hamper the ability of CPs to compete effectively against BT. Deeper network competition and solutions such as EFM and EAD LA require the availability of cost effective space solutions. BTW and Openreach have rolled out extensive EFM and EAD LA presence. It is essential that competing CPs are able to purchase space on an Eol basis.

We believe that the application of EoI requires more detailed thinking. It seems at odds that for example Ethernet circuits are EoI yet all the building blocks required to provide an Ethernet service are not. Space is an obvious area which must be looked at.

In addition Ofcom must consider the situation in which Eol could be regarded to exist but in practise Eol does not deliver equivalent outcomes. In the context of this review is Openreach is required to offer higher bandwidth AI on Eol terms it is essential that Openreach consumes the bandwidths that other CPs purchase. Eg Eol for 10Gbit/s is not relevant if Openreach alone is using 40Gbit/s.