



Business Connectivity Market Review

Timetable and initial call for inputs

	Consultation
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Section 1

Business connectivity market review

Introduction

- 1.1 We completed the most recent Business Connectivity Market review in March 2013 (BCMR 2013) when we published our Statement.¹ The BCMR 2013 considered the markets for:
- the retail provision of leased lines in the UK; and
 - the wholesale provision of terminating segments and trunk segments in the UK.²
- 1.2 We are now undertaking the next Business Connectivity Market review (BCMR 2016). Our market review process involves three analytical stages:
- a) to identify and define the relevant markets, appropriate to the national circumstances in the UK, under the regulatory framework harmonised across the EU;
 - b) to determine whether or not any of the markets are effectively competitive. This involves assessing whether any operator has significant market power (SMP) in any of those relevant markets; and
 - c) where there has been a finding of SMP, to assess the appropriate remedies which should be imposed, based on the nature of the competition problem(s) identified in the relevant markets or, where we determine that a market is effectively competitive, to remove regulation that currently applies to that market.
- 1.3 These analytical stages are the same as those we carried out in the BCMR 2013 and in the other two previous Business Connectivity Market reviews.³ We set out an overview of the market review process, and how it fits within the relevant regulatory framework, in Annex 2 to the BCMR 2013 Statement.
- 1.4 Although most of the markets under this market review will most likely concern services at the wholesale level⁴, these services are an important input to a wide range of retail services including retail leased lines, broadband services and mobile services. Consequently decisions taken here will ultimately affect prices, choice and availability of services in these retail markets.

Purpose of this Call for Inputs

- 1.5 The purpose of this document is:

¹ The concept of a market review refers to procedures, set out in the Communications Act 2003, under which, at regular intervals, we identify relevant markets appropriate to national circumstances, carry out analyses of these markets to determine whether they are effectively competitive and then decide on appropriate remedies.

² <http://stakeholders.ofcom.org.uk/consultations/business-connectivity-mr/>

³ In 2004 and in 2008.

⁴ As was the case for the BCMR 2013.

- to announce the start of the BCMR 2016;
- to provide stakeholders with an overview of the project timetable;
- to seek stakeholders' views on the following topics:
 - our proposed approach to the review;
 - the proposed market questionnaire;
 - BT's quality of service in the delivery of wholesale leased lines;
 - substitution of leased lines services with broadband services;
 - passive remedies;
 - regulation of the retail market for very low bandwidth Traditional Interface (TI) services; and
 - our approach to any potential charge control remedy.

1.6 We have identified these topics now in light of our experience gained over the course of, and subsequent to completion of, the BCMR 2013⁵, and having considered the sequence of work which may be necessary to undertake as we conduct the BCMR 2016. As set out further below, we will be publishing a number of consultation documents (of which this document is the first). Consistent with how we conducted the BCMR 2013, stakeholders will be given the opportunity (both in relation to our consultation documents and generally throughout the BCMR 2016 process) to input into, and respond to, all our consultation proposals and subsequent conclusions, together with our reasoning.

1.7 We are seeking responses to this consultation by 27 May 2014. Responses should be in writing (either through our website or by email or post – see Annex 1).

Findings of the BCMR 2013

1.8 Table 1.1 below summarises the market definitions and SMP findings we adopted in the BCMR 2013. Both our market definition and SMP assessment of these markets considered how competitive conditions may change over the course of the forward-look period of three years, taking into account expected or foreseeable developments. A number of different product markets were defined, based on the extent of likely substitution and observed differences in competitive conditions between different leased lines services.

1.9 We also defined three geographic markets reflecting differences in competitive conditions between different parts of the UK for some product markets. In particular we defined separate markets in the Hull area (for all services) and in London and the surrounding area (for some services). We called the London area geographic market the West East and Central London Area (the WECLA).

⁵ Including having regard to our forward-looking analysis over the period to 2016 which was part of the BCMR 2013.

Table 1.1 Market definition and SMP findings from the BCMR 2013

Interface technology	Bandwidth (Mbit/s)	Retail Services		Wholesale Segments			
		UK	Hull	Symmetric Broadband Origination			Trunk
		UK	Hull	The WECLA	UK except the WECLA and Hull	Hull	UK
Traditional (TI)	V Low: <2	BT					
	Low: <=8		KCOM	BT			KCOM
	Med: >8, <=45			No SMP	BT	KCOM	National No SMP
	High: >45, <=155			No SMP	BT	KCOM	Regional BT
	Very High: 622			No SMP			KCOM
Alternative (AI)	Low <=1,000		KCOM	BT	BT	KCOM	
Multiple (MI)	>1,000, and any if WDM at customer's premises			No SMP	BT		

1.10 Tables 1.2 and 1.3 provide an overview of the remedies imposed on BT and KCOM in order to address the competition problems we identified in our SMP assessment, as set out in the BCMR 2013.

Table 1.2 Summary of wholesale remedies imposed on BT and KCOM as a result of the SMP findings in the BCMR 2013

Wholesale market remedy	BT wholesale TI markets	BT wholesale AI and MI markets	KCOM wholesale TI and AI markets
Requirement to provide network access on reasonable request	x	x	x
Requirement to provide specific forms of network access		x	
Requirement to provide network access on the basis of Equivalence of Inputs (except for certain exceptions)		x	
Requirement not to discriminate unduly	x	x	x
Requirement to publish a reference offer	x	x	x
Requirement to notify changes to prices, terms and conditions	x	x	x
Accounting obligations	x	x	x
Requirements relating to requests for new network access	x	x	
Requirement to provide exchange accommodation and specific types of interconnection	x	x	
Charge control	x	x	
Requirement to publish quality of service information	x	x	
Direction relating to Partial Private Circuits	x		
Direction relating to RBS Backhaul	x		
Direction relating to Service Level Guarantees		x	

Table 1.3 Summary of retail remedies imposed on BT and KCOM as a result of the SMP findings

Retail market remedy	BT	KCOM
Obligation to supply existing retail leased line services and to give notice of withdrawal	x	
Requirement to supply retail leased lines		x
Requirement not to discriminate unduly	x	x
Requirement to publish a reference offer	x	x
Accounting obligations	x	
Safeguard cap on retail prices (analogue services only)	x	

Timetable for the market review

- 1.11 Table 1.4 below sets out our provisional timetable for the BCMR, and includes the main data gathering activities we plan to undertake.
- 1.12 We aim to complete the review by February 2016 so that any new remedies and charge controls can be in place by the time the current charge controls expire on 31 March 2016.

Table 1.4: Provisional Timetable for the BCMR including principal data gathering activities

Activity	Date	Description
Call for inputs	March 2014	This document – providing an overview of our timetable and seeking stakeholder comments on our proposed approach, scope and topics for which we require early input to inform our analysis
Circuit and network inventory information request	Spring 2014	Information requests under s135 of the Communications Act to communications providers supplying leased lines using their own network infrastructure. We are primarily requesting circuit inventories, network location and network extension information to update information last gathered in summer 2011. We are also issuing information requests to mobile network operators and large LLU operators, as they represent a significant proportion of the demand for leased lines.
Market questionnaire	Summer 2014	We will issue a set of market questionnaires to communications providers, particularly providers of business connectivity services. The purpose of this is to complement our data analysis with qualitative evidence, for example on operators' business plans and competitive strategies, as well as stakeholder views on the current and future direction of the relevant markets.
End user research to inform market definition	Summer 2014	Quantitative market research with businesses to inform our market definition, seeking information about services purchased and attitudes to switching etc. We anticipate that the objectives and methodology of this research will be broadly similar to those of the consumer survey commissioned for the previous BCMR. That research is published on our website here: http://stakeholders.ofcom.org.uk/binaries/consultations/business-connectivity/annexes/business-review.pdf .
End user research on quality of service	Summer 2014	Quantitative market research with businesses about their experience and expectations in relation to provision and repair of leased lines services.
Consultation on BCMR network reach and service share analysis	Autumn 2014	Given the complexity of the service share and network reach analysis, supporting our market definition and SMP assessment, we plan to publish a working paper for consultation that will explain and seek views on: (i) the data we have collected; (ii) the steps we have taken to process the data; and (iii) the methodology we use to estimate service shares and network reach We will also include some initial results based on our most up-to-date analysis.
Other Working Papers for consultation	Autumn 2014	We may decide to issue Working Papers for consultation on other topics during this period.

BCMR Consultation	Spring 2015	Consultation seeking comments from stakeholders on our proposals for market definition, SMP findings, remedies and supporting analysis.
Leased Line Charge Control (LLCC) Consultation	Spring 2015	Consultation setting out our charge control proposals and supporting analysis.
Draft BCMR & LLCC Statement	Jan 2016	Notification to the European Commission and publication of draft statement covering the market review and charge controls.
Final BCMR & LLCC Statement	Feb 2016	Publication of final statement concluding the market review and imposing any remedies including charge controls.

Market questionnaire

- 1.13 As noted above, we are planning to explore market characteristics, developments and competitive conditions with CPs, by means of a structured questionnaire which we hope to issue in summer 2014. If your organisation is active in the provision of leased lines market or related services and you would like to contribute to our research please let us know.

Question 1: Is your organisation active in the provision of leased lines or related services? Would you be willing to help Ofcom with its analysis of the leased lines markets by completing a questionnaire?

Proposed approach to the review

- 1.14 As already noted above, we have undertaken significant analysis of these markets on several occasions⁶, most recently in the 2013 BCMR. We intend to adopt an approach that will involve us taking our previous analyses as our starting point for this review. Where the available evidence indicates that there have been no significant developments, we would expect to refresh our previous analysis by updating the key evidence relied on in our last review. Conversely, where evidence suggests more material developments have occurred or may occur during the forward-look period⁷ for the BCMR 2016 (April 2016 to March 2019), we would expect to conduct a more detailed analysis.
- 1.15 We are therefore seeking stakeholders' views, together with evidence on developments since the last BCMR and prospective developments that may be material to the market definition, SMP assessment and remedies.

⁶ For example, the respective BCMR we completed in 2004 and then again in 2008.

⁷ Rather than just looking at the current position, market reviews look ahead to how competitive conditions may change in the future. For the BCMR 2013, we took a forward look of three years, reflecting the characteristics of the retail and wholesale markets and the factors likely to influence their competitive development, as well as the timing of the next market review. For the same reasons, we consider for the BCMR 2016 that a forward look of three years would also be appropriate.

Question 2: Are there any developments since the last BCMR or prospective developments that may be material to our analysis of competition in this market? Please identify specific developments, explaining why they may be material.

Our initial questions

- 1.16 We are seeking stakeholder comments on several topics. At this point we consider it is important to emphasise that our decision to commence work on these topics is without prejudice to the necessary exercise of assessing SMP (which is stage 2 of the three analytical stages referred to in paragraph 1.2 above).⁸ Equally, our decision to commence work on these topics should not be interpreted as indicating a preference for a particular remedy or remedies. As mentioned above, we have identified these topics now in light of our experience gained over the course of, and subsequent to completion of, the BCMR 2013⁹, and having considered the sequence of work which may be necessary to undertake as we conduct the BCMR 2016. Consequently, in the event that we find SMP, we will be in a position not only to have given full consideration to what the appropriate remedies should be to address the identified competition problems, but also to implement them by the time we complete the BCMR 2016 which we aim to do by February 2016.
- 1.17 This consultation is one of the first steps in our market review. During the next 18 months we plan to conduct a significant amount of research, analysis and stakeholder engagement, including but not limited to the major activities listed in Table 1.4 above.

Quality of service

- 1.18 During the last year we have observed an increase in the level of concern amongst CPs with respect to BT's quality of service in the delivery of Ethernet services. In response, we have been monitoring the situation and have met regularly with Openreach, communications providers and the Office of the Telecoms Adjudicator 2 (OTA2)¹⁰ to discuss developments.
- 1.19 Some recent events have highlighted the concerns. In Spring 2013, the proportion of provision orders completed on the agreed date fell by about 20% before recovering later in the Summer. In addition Openreach's deployment of its new support system known as Ethernet Strategic Transformation (EST), in January 2012, had significant problems. These problems delayed the deployment of new services such as the SyncE variant of EAD.
- 1.20 The focus of concern is on the provisioning of new Ethernet lines, in terms of the speed and unpredictability of the process. CPs have in particular highlighted problems with lead-times for survey/planning activities and with job coordination activities.

⁸ Broadband substitution aside, which falls under stage 1 – i.e. defining the relevant markets. Only where there is a finding of SMP in a relevant market do we impose remedies (to address the competition problem(s) arising from the existence of SMP).

⁹ Including having regard to our forward-looking analysis over the period to 2016 which was part of the BCMR 2013.

¹⁰ <http://www.offta.org.uk/>

- 1.21 Clearly, given the importance of Ethernet circuits to UK business, such service issues are of concern. We are conscious also that Openreach is likely to be stretched further with the rollout of 4G mobile network infrastructure over the coming years.
- 1.22 We are aware that a number of initiatives have been undertaken to address the problems. Openreach has implemented interim measures and has been working with CPs, to specify changes to the EST system (a programme known as Steadfast). Also, the OTA2 has facilitated industry discussions that have identified a range of process improvements, collectively known as EAD2, which will be implemented as part of the Steadfast programme.¹¹
- 1.23 In support of these initiatives, we are also currently consulting on a proposed direction to facilitate a change to the charging arrangements for Excess Construction Charges (ECCs) which is intended to make the provision process for EAD Ethernet services more straightforward.¹²
- 1.24 While we welcome these initiatives the question remains as to whether they will address all the industry concerns or whether we need to consider regulatory changes.
- 1.25 We are therefore interested in stakeholders' comments about BT's current quality of service in the delivery of wholesale leased lines services. In particular:
- CPs' experience of BT's performance;
 - the impact of any quality concerns on CPs;
 - the impact of any quality concerns on end-users;
 - the perceived reasons for any identified quality concerns and suggestions as to how they might be addressed; and
 - the extent to which the current provision and repair services meet customers' needs.
- 1.26 We are also interested in stakeholders' comments about whether the current arrangements provide BT with the correct incentives to deliver adequate quality of service and if not what changes should be made.
- 1.27 BT's incentives in relation to quality of service are likely to be affected by a range of factors, including but not limited to the leased lines charge controls and its contracts with communications providers which make commercial provision for Service Level Agreements (SLAs) and Service Level Guarantees (SLGs).

Question 3: What is your experience of the quality of BT's provision and repair of wholesale leased line services? Are there any consistent trends? Can you provide evidence to support your views?

¹¹ These improvements include infrastructure discovery, survey/planning arrangements, Excess Construction Charges (ECCs) and end user appointments

¹² <http://stakeholders.ofcom.org.uk/consultations/excess-construction-charges/>

Question 4: Do the KPIs that BT publishes / shares with industry give you sufficient visibility of its performance? If not, please explain what further information should be provided and why.

Question 5: If there are quality or timeliness concerns, how do these affect your business and how do they affect your customers? Please provide evidence to support your views.

Question 6: Do BT's current provision and repair services for wholesale leased lines meet your customers' needs, for example in relation to lead times, keeping appointments or adhering to agreed delivery dates? If not what changes do you think BT should make to its provision and repair services?

Question 7: Do you consider BT has appropriate incentives to provide the quality of service which you and your customers require? If not, what changes do you think should be made to BT's incentives?

Broadband substitution

- 1.28 In the last BCMR we considered whether leased lines and asymmetric broadband services were in the same product market. On balance we concluded that they were not in the same market largely due to:
- key differences in service features. Survey evidence suggested that service features of leased lines are highly valued by end-users, and end-users have significant concerns about switching to asymmetric broadband services;
 - the lack of convergence between the prices of asymmetric broadband and low bandwidth leased lines, despite the significant savings available from switching to broadband;
 - the continued significant demand for low bandwidth leased lines despite their significant price premium over asymmetric broadband services;
 - uncertainty around the competitive impact of next generation broadband services; and
 - the existence of significant switching costs for some end-users in moving from leased lines to broadband products.
- 1.29 We are seeking early views from stakeholders as this is an area where significant change may have taken place since the last BCMR. In particular, the availability and take up of broadband services based on next-generation access (NGA) technologies such as fibre-to-the-cabinet has increased significantly. These services offer significantly higher upload and download bandwidths than current generation (ADSL/ADSL2+) broadband. Also the European Commission is currently reviewing its Recommendation on the Relevant Product and Service Markets.¹³ The current proposal¹⁴ (subject to consultation) is to define a market for 'Wholesale High Quality

¹³ Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second Edition) (C(2007)5406 rev1).

¹⁴ <http://ec.europa.eu/digital-agenda/en/news/draft-revised-recommendation-relevant-markets>

Access' that could include terminating segments of leased lines and 'business-grade' broadband services (both current generation broadband and NGA based services).¹⁵

1.30 We will consider whether current generation or NGA based broadband services or a subset of those services that might be characterised as 'business-grade' are sufficiently close substitutes for leased lines such that they fall within the same market(s) or are relevant to consideration of remedies.

1.31 With this in mind we would welcome views from stakeholders, supported by evidence, on the following questions:

Question 8: Can broadband, particularly NGA-based services be used effectively for the delivery of business connectivity? Has this changed over the last three years? How do you think this might change over the coming three years?

Question 9: Are new business customers that would traditionally have taken leased line products now opting for a broadband service? If yes, what type of broadband service are these business customers taking.

Question 10: Are existing business customers actively migrating from leased lines to broadband products? If yes:

- *which types of business customer are migrating?*
- *which types of leased line product (interface and bandwidth) are they migrating from?*
- *which types of broadband service are they migrating to?*
- *does switching vary between different areas of the country (e.g. depending on NGA availability, the number of broadband providers present or other factors)?*
- *What are the barriers (if any) to switching from leased lines to broadband products?*

Passives

1.32 In the BCMR 2013 we considered whether we should introduce passive remedies, such as a requirement to supply dark fibre or physical infrastructure access (i.e. duct and pole sharing). We concluded at that time that it was not appropriate to do so.¹⁶ As part of this review we plan to consider again whether, on the presumption we make findings of SMP on the part of BT again, there is a case for passive remedies in wholesale leased lines markets.

1.33 One particular aspect that we intend to consider is the impact that passive remedies might have on BT's common cost recovery. It is an important principle of price cap regulation that BT should have the opportunity, on a forward-looking basis, to recover its efficiently incurred costs including its common costs. One implication is that, if common costs cannot, or can no longer, be recovered from one set of services, we might need to allow BT to recover a greater share of common costs through charges for other services to allow cost recovery overall. With this in mind we plan to investigate the following areas:

¹⁵ In our Wholesale Broadband Access Market Review consultation published in July 2013, we proposed to define a single product market for wholesale broadband access services that includes broadband services purchased by residential and business consumers.
<http://stakeholders.ofcom.org.uk/consultations/review-wba-markets/>

¹⁶ See Section 8 of the BCMR 2013 Statement.

- Types of passive remedy – the types of passive remedy that might be technically feasible and suitable for use in leased lines markets e.g. duct access, dark fibre, others;
- Applications – the uses and parts of the network that passive remedies might be most suited to;
- Whether passive remedies should co-exist with the existing active remedies and the relationship between them if both are adopted;
- Pricing – the potential pricing approaches for passive remedies, the practicability and impact on take-up of each approach;
- Benefits – the benefits that passive remedies could deliver compared with active remedies in leased lines markets e.g. in relation to innovation, responsiveness or quality of service;
- Costs – the costs associated with passive remedies e.g. in relation to duplication of assets, implementation and operational costs;
- Impact of passive remedy usage and pricing - including the:
 - impact on usage and pricing of active remedies and on the share of its common costs BT is able to recover from active remedy revenues;
 - impact in the Wholesale Local Access market where there is already an obligation for BT to provide Physical Infrastructure Access (PIA) (i.e. duct and pole sharing);
 - downstream impact on services outside the leased lines markets e.g. changes to prices for other regulated services stemming from changes in the pattern of BT's common cost recovery;
 - impact on existing infrastructure investments (e.g. competitive networks in London and other major cities); and
 - impact on geographic market definition and SMP findings; and
- whether the considerations outlined above vary in different geographic areas.

1.34 We also note that a new European Directive will be adopted this spring which will introduce, amongst other things, a right for telecommunications providers and utility companies to access each other's passive infrastructure, upon reasonable request, for the purposes of rolling out high-speed broadband networks. We will therefore also consider the implications of these new legal provisions on leased lines markets as part of the BCMR.

Question 11: Do you have any comments about the scope of our planned work on passive remedies?

Question 12: Which of the following types of passive remedy might be technically feasible and suitable for leased lines?

- *Physical Infrastructure Access (i.e. duct and pole sharing);*
- *Dark fibre;*
- *Wavelength unbundling;*

- *Other passive remedies (please specify).*

Question 13: For what applications could communications providers use each of the types of passive remedy listed in question 12 above?

Question 14: How might passive remedies extend the geographic reach of infrastructure competition?

Question 15: Would the presence of physical infrastructure belonging to other CPs affect usage of passive remedies? For example would you expect passive remedies to be used only or mainly in areas where only BT has passive infrastructure or would you also expect passive remedies to be used in areas where other CPs have passive infrastructure?

Question 16: What are the benefits that passive remedies might offer in comparison to active remedies? Please consider specifically:

- *Service innovation benefits e.g. the ability to differentiate service features and functionality (such as fault finding, configuration options, etc.)*
- *Network innovation benefits e.g. the ability to configure the network in a different way to BT's network configuration.*
- *Technology innovation benefits e.g. the ability to adopt new technologies, or introduce new technologies earlier than they might otherwise have been introduced.*
- *Avoiding duplication e.g. the ability to avoid the duplication of network elements for network monitoring purposes.*
- *Other benefits (please specify)*

Question 17: How valuable would the innovation benefits of passive remedies be? Would they be sufficient for you to choose passive remedies if there was no overall cost advantage compared with active remedies (i.e. if the price of the passive remedy was exactly equal to the price of the active remedy less the cost of the network components that you would need to provide)?

Question 18: What are the technical and operational challenges associated with deploying and using passive remedies and how might these be addressed?

Question 19: What are the strengths and weaknesses of different pricing structures that might be adopted for passive remedies, in particular:

- *uniform prices that do not vary either by geographic area or the use to which the passive remedy is put (e.g. residential NGA versus leased lines); and*
- *prices that do vary according to geographic area or the use to which the passive remedy is put, and which reflect the value of the services provided or geographic differences in the intensity of passive infrastructure usage, more like the way BT's prices active products now?*

Retail remedies for very low bandwidth TI services

- 1.35 In the BCMR 2013 we found BT to have SMP in the retail market for very low bandwidth TI leased lines and imposed remedies to address the concerns identified. This market encompasses analogue leased lines and sub 2Mbit/s TDM leased lines (known as Kilostream services) in the UK excluding the Hull area.
- 1.36 In the BCMR 2016 we plan to consider whether there is a need for continued regulation of this retail market.

- 1.37 The volume of these legacy services is in long-term decline and BT plans to withdraw them as the network that supports them is obsolete and is becoming difficult to maintain. We reported in the BCMR 2013 that BT had delayed the withdrawal of these services considerably to give users such as electricity utilities more time to migrate to other services. BT has recently announced a further two year extension to their availability to at least March 2020. However it has warned users that due to the age of the network it may not be able to restore existing services if a serious incident occurs.
- 1.38 One of the reasons why we maintained retail regulation was that we considered it important to maintain regulatory oversight of the withdrawal of these services as some are used for critical applications, most notably the circuits used by electricity utilities for power network control applications. From our informal discussions with the Energy Networks Association and with BT, we understand that migration of the electricity utility circuits is now well advanced and is likely to be largely completed by the time we complete this review.
- 1.39 Based on this understanding, our current view is that given the prospective withdrawal of these services, the declining volumes and the extended notice already given to users of critical applications, the scope for harm is likely to have diminished considerably by the time we conclude this BCMR. We consider that any risk of harmful action by BT would be likely to be mitigated by accelerated migration of end-users to alternative services. In light of this, we consider that it may not be proportionate for us to maintain retail regulation after March 2016. We intend to consider this further, and would therefore welcome comments from stakeholders.

Question 20: Do you think we should continue to regulate BT's retail analogue and Kilostream services after March 2016? Please provide reasons to support your views.

Question 21: Are BT's retail analogue and Kilostream services used for any other critical applications that might have difficulty migrating to alternative services?

Charge control remedy

- 1.40 In the BCMR 2013 we concluded that a charge control was an appropriate remedy to address the competition problems in a number of the reviewed wholesale markets.
- 1.41 In imposing the charge control we sought to balance a number of specific policy objectives, as derived from our statutory duties¹⁷:
- to prevent BT setting excessive charges for specific leased line services where it has SMP, while providing appropriate incentives for it to increase its efficiency;
 - to promote efficient and sustainable competition in the delivery of specific leased line services;
 - to confer the greatest possible benefits on the end-users of public electronic communications services;
 - to take account of the extent of BT's investment in the matters covered by the charge controls;

¹⁷ See paragraph 2.52 of the BCMR 2013 Statement.

- to ensure prices are subject to appropriate controls, for example in allowing BT to retain sufficient flexibility in the way it sets its prices;
 - to provide regulatory certainty for BT and its customers and to avoid undue disruption;
 - to encourage investment and innovation in the relevant markets; and
 - to ensure that the delivery of the regulated services is sustainable, in that the prevailing prices provide BT with the opportunity to recover all of its relevant costs (where efficiently incurred), including the cost of capital.
- 1.42 The resulting charge control covers both TI and Ethernet services in separate baskets:¹⁸
- **TI Basket** – including low, medium and high bandwidth wholesale TI services outside the WECLA, low bandwidths services within the WECLA and regional trunk services (at all bandwidths); and
 - **Ethernet Basket** – including Ethernet services up to and including 1Gbit/s outside the WECLA and Ethernet services above 1Gbit/s outside the WECLA.
- 1.43 In setting the controls on the two baskets we also sought to strike an appropriate balance between the promotion of efficient migration (from TI services to Ethernet services) and the protection of consumers of TI services¹⁹.
- 1.44 We adopted an RPI-X form of charge control for the main charge control baskets. As explained in the BCMR 2013 Statement, this form of control has been tried and tested over many years and has a number of desirable properties, particularly in relation to giving BT incentives to enhance its efficiency and to make efficient investments.²⁰
- 1.45 This type of control aims to align prices with forecast costs over the period of the control. BT's costs at the end of the control period are forecast on the basis of volume growth and asset price change forecasts combined with efficiency improvement assumptions, asset-volume elasticities (AVEs) and cost-volume elasticities (CVEs). The cost forecasts for both main baskets are constructed from cost forecasts for the underlying components and services. This approach resulted in a large and complex model as costs are forecast for around 60 components and around 190 services.²¹
- 1.46 As part of our early work on the BCMR 2016 we are considering our approach to the charge controls in the event that we again conclude that charge controls would be an appropriate and proportionate remedy to address the competition problems arising from finding SMP. In particular, regarding TI services, these are legacy services and in long-term decline in favour of more modern technologies such as Ethernet, and in the BCMR 2013 we forecast that volumes would decline by about 20% per annum over the current control period. In light of this, we are considering whether, in the

¹⁸ Further, we separately control excess construction charges, accommodation services and AISBO services in the WECLA, covering AISBO services up to and including 1Gbit/s.

¹⁹ See, for example, paragraphs 19.376 – 19.378 of the BCMR 2013 Statement.

²⁰ See Sections 17 and 18 of the BCMR 2013 Statement.

²¹ See Sections 19 and 20 of, and Annex 12 to, the BCMR 2013 Statement.

event that we were to impose a charge control, it would be appropriate and proportionate to continue to undertake such an extensive modelling exercise in relation to TI services. In particular, having regard to the main competition problem which the charge controls were designed to address in the BCMR 2013²², we are considering the advantages and disadvantages of adopting an alternative form of charge control, such as a simple charge control with charges capped by reference to their current level, in the event the volumes of TI services continue to fall, as forecast over the period of the current control.

Question 22: How effective do you consider the current leased line charge control has been in balancing Ofcom's objectives? Please provide evidence or give reasons/examples for your views.

Question 23: If you do not consider that the current charge control has been effective in achieving Ofcom's objectives, what changes do you consider should be made and why?

Question 24: Given the expected decline in TI service volumes over the current control period, do you consider an alternative type of control, such as a simple charge control with charges capped by reference to their current level, would be more appropriate and proportionate in the next control period? If so, why?

²² That being BT's ability and incentive to charge excessive prices.

Annex 1

Responding to this consultation

How to respond

- A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 27 May 2014**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <http://stakeolders.ofcom.org.uk/consultations/business-connectivity-market-review/howtoprespond/form>, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 3), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.
- A1.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email business.review@ofcom.org.uk attaching your response in Microsoft Word format, together with a consultation response coversheet.
- A1.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.
- Clive Hillier
Ofcom, 4th Floor
Riverside House
2A Southwark Bridge Road
London SE1 9HA
- A1.5 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A1.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views and how Ofcom's proposals would impact on you.

Further information

- A1.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Clive Hillier on 020 7783 4674.

Confidentiality

- A1.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, www.ofcom.org.uk, ideally on receipt. If you think your response should be kept confidential, can you please specify what part or whether

all of your response should be kept confidential, and specify why. Please also place such parts in a separate annex.

- A1.9 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and will try to respect this. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.
- A1.10 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/about/accoun/disclaimer/>

Next steps

- A1.11 Following the end of the consultation period, Ofcom intends to publish a consultation in autumn 2014.
- A1.12 Please note that you can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: http://www.ofcom.org.uk/static/subscribe/select_list.htm

Ofcom's consultation processes

- A1.13 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.
- A1.14 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at consult@ofcom.org.uk . We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.
- A1.15 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Graham Howell, Secretary to the Corporation, who is Ofcom's consultation champion:

Graham Howell
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA

Tel: 020 7981 3601

Email Graham.Howell@ofcom.org.uk

Annex 2

Ofcom's consultation principles

A2.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

Before the consultation

A2.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

During the consultation

A2.3 We will be clear about who we are consulting, why, on what questions and for how long.

A2.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened Plain English Guide for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A2.5 We will consult for up to 10 weeks depending on the potential impact of our proposals.

A2.6 A person within Ofcom will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organisations interested in the outcome of our decisions. Ofcom's 'Consultation Champion' will also be the main person to contact with views on the way we run our consultations.

A2.7 If we are not able to follow one of these principles, we will explain why.

After the consultation

A2.8 We think it is important for everyone interested in an issue to see the views of others during a consultation. We would usually publish all the responses we have received on our website. In our statement, we will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

Annex 3

Consultation response cover sheet

- A3.1 In the interests of transparency and good regulatory practice, we will publish all consultation responses in full on our website, www.ofcom.org.uk.
- A3.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality where appropriate.
- A3.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
- A3.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at www.ofcom.org.uk/consult/.
- A3.5 Please put any parts of your response you consider should be kept confidential in a separate annex to your response and include your reasons why this part of your response should not be published. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your cover sheet only, so that we don't have to edit your response.

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title: Business Connectivity Market Review: timetable and initial call for inputs

To (Ofcom contact): Clive Hillier

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing	<input type="checkbox"/>	Name/contact details/job title	<input type="checkbox"/>
Whole response	<input type="checkbox"/>	Organisation	<input type="checkbox"/>
Part of the response	<input type="checkbox"/>	If there is no separate annex, which parts?	

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Name

Signed (if hard copy)

Annex 4

Consultation questions

Market questionnaire

Question 1: Is your organisation active in the provision of leased lines and related services? Would you be willing to help Ofcom with its analysis of the leased lines markets by completing a questionnaire?

Proposed approach to the review

Question 2: Are there any developments since the last BCMR or prospective developments that may be material to our analysis of competition in this market? Please identify specific developments, explaining why they may be material.

Quality of service

Question 3: What is your experience of the quality of BT's provision and repair of wholesale leased line services? Are there any consistent trends? Can you provide evidence to support your views?

Question 4: Do the KPIs that BT publishes / shares with industry give you sufficient visibility of its performance? If not, please explain what further information should be provided and why.

Question 5: If there are quality or timeliness concerns, how do these affect your business and how do they affect your customers? Please provide evidence to support your views.

Question 6: Do BT's current provision and repair services for wholesale leased lines meet your customers' needs, for example in relation to lead times, keeping appointments or adhering to agreed delivery dates? If not what changes do you think BT should make to its provision and repair services?

Question 7: Do you consider BT has appropriate incentives to provide the quality of service which you and your customers require? If not, what changes do you think should be made to BT's incentives?

Broadband substitution

Question 8: Can broadband, particularly NGA-based services be used effectively for the delivery of business connectivity? Has this changed over the last three years? How do you think this might change over the coming three years?

Question 9: Are new business customers that would traditionally have taken leased line products now opting for a broadband service? If yes, what type of broadband service are these business customers taking.

Question 10: Are existing business customers actively migrating from leased lines to broadband products? If yes:

- which types of business customer are migrating?*

- *which types of leased line product (interface and bandwidth) are they migrating from?*
- *which types of broadband service are they migrating to?*
- *does switching vary between different areas of the country (e.g. depending on NGA availability, the number of broadband providers present or other factors)?*
- *What are the barriers (if any) to switching from leased lines to broadband products?*

Passives

Question 11: Do you have any comments about the scope of our planned work on passive remedies?

Question 12: Which of the following types of passive remedy might be technically feasible and suitable for leased lines?

- *Physical Infrastructure Access (i.e. duct and pole sharing);*
- *Dark fibre;*
- *Wavelength unbundling;*
- *Other passive remedies (please specify).*

Question 13: For what applications could communications providers use each of the types of passive remedy listed in question 12 above?

Question 14: How might passive remedies extend the geographic reach of infrastructure competition?

Question 15: Would the presence of physical infrastructure belonging to other CPs affect usage of passive remedies? For example would you expect passive remedies to be used only or mainly in areas where only BT has passive infrastructure or would you also expect passive remedies to be used in areas where other CPs have passive infrastructure?

Question 16: What are the benefits that passive remedies might offer in comparison to active remedies? Please consider specifically:

- *Service innovation benefits e.g. the ability to differentiate service features and functionality (such as fault finding, configuration options, etc.)*
- *Network innovation benefits e.g. the ability to configure the network in a different way to BT's network configuration.*
- *Technology innovation benefits e.g. the ability to adopt new technologies, or introduce new technologies earlier than they might otherwise have been introduced.*
- *Avoiding duplication e.g. the ability to avoid the duplication of network elements for network monitoring purposes.*
- *Other benefits (please specify)*

Question 17: How valuable would the innovation benefits of passive remedies be? Would they be sufficient for you to choose passive remedies if there was no overall cost advantage compared with active remedies (i.e. if the price of the passive remedy was exactly equal to the price of the active remedy less the cost of the network components that you would need to provide)?

Question 18: What are technical and operational challenges associated with deploying and using passive remedies and how might these be addressed?

Question 19: What are the strengths and weaknesses of different pricing structures that might be adopted for passive remedies, in particular:

- uniform prices that do not vary either by geographic area or the use to which the passive remedy is put (e.g. residential NGA versus leased lines); and*
- prices that do vary according to geographic area or the use to which the passive remedy is put, and which reflect the value of the services provided or geographic differences in the intensity of passive infrastructure usage, more like the way BT's prices active products now?*

Retail remedies for very low bandwidth TI services

Question 20: Do you think we should continue to regulate BT's retail analogue and Kilostream services after March 2016? Please provide reasons to support your views.

Question 21: Are BT's retail analogue and Kilostream services used for any other critical applications that might have difficulty migrating to alternative services?

Charge control remedy

Question 22: How effective do you consider the current leased line charge control has been in balancing Ofcom's objectives? Please provide evidence or give reasons/examples for your views.

Question 23: If you do not consider that the current charge control has been effective in achieving Ofcom's objectives, what changes do you consider should be made and why?

Question 24: Given the expected decline in TI service volumes over the current control period, do you consider an alternative type of control, such as a simple charge control with charges capped by reference to their current level, would be more appropriate and proportionate in the next control period? If so, why?