Business Connectivity Market Review

Review of the wholesale very high bandwidth traditional interface symmetric broadband origination markets

Consultation

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Contents

Section 1

Summary

Overview

1.1 BT and KCOM are currently subject to ex-ante regulation in certain leased lines markets in the UK. These were imposed through the Final Statement which concluded the 2003/04 Review of the Retail Leased lines, Symmetric Broadband Origination and Wholesale Trunk Segments Markets[1] ('the 2003/04 Review'). The aim of such regulation was to promote competition in leased lines markets to the ultimate benefit of end users. The current regulatory regime has overall worked well in promoting greater competition in certain leased lines markets. Ofcom has however identified some deficiencies in the current regime and an overall need to update it in view of the perceived changes in market conditions since the last review. The deficiencies are primarily linked to the quality and pricing of services. We believe that these problems require fixing to ensure that in the future the regulatory regime for leased lines in the UK further promotes competition in leased lines markets in the UK.

1.2 In the consultation document published on 17 January 2008 entitled "Business Connectivity Market Review[2] ('the January 2008 consultation') Ofcom set out a number of proposals in relation to the regulatory framework for retail leased lines, wholesale symmetric broadband origination and wholesale trunk segments in the UK. These proposals were designed to address the deficiencies to the current regime and to provide a regulatory framework that would promote investments and innovation as operators start rolling out Next Generation Networks (NGNs).

1.3 Respondents to the January 2008 consultation argued, among other things, for a different market definition and SMP assessment in relation to some of the wholesale leased lines markets.

1.4 In particular, respondents to the January 2008 consultation raised concerns in relation to the proposed market definition for 155 and 622 Mbit/s TISBO and the proposed finding of no SMP for this market in the UK (excluding the Hull area). Several respondents considered that competitive conditions between 155 Mbit/s and 622 Mbit/s wholesale leased lines were different and that this reflected the fact that the two services were in separate markets and claimed that BT continued to have SMP, at least in some parts of the UK for the provision of 155 Mbit/s traditional interface wholesale leased lines.

1.5 Having considered the responses, and further reviewed additional evidence, we now propose to determine distinct product markets for very high bandwidth 155 Mbit/s and 622 Mbit/s TISBO. With respect to very high bandwidth 155 Mbit/s TISBO, we are proposing to define separate geographic markets for the Hull area, the Central and East London Area (CELA), and the UK excluding the Hull area and the CELA. With respect to very high bandwidth 622 Mbit/s TISBO, we are proposing to define separate markets for the Hull area and the UK excluding the Hull area.

[1] http://www.ofcom.org.uk/consult/condocs/llmr/statement/

[2] http://www.ofcom.org.uk/consult/condocs/bcmr/

1.6 In the UK excluding the Hull area and the CELA, we are proposing that BT has SMP in the provision of very high bandwidth 155 Mbit/s TISBO. In the Hull area, we are proposing that KCOM has SMP in the market for very high bandwidth 155 Mbit/s TISBO. We are proposing that no operator has SMP in the UK, excluding the Hull area, and in the Hull area in the market for the provision of very high bandwidth 622 Mbit/s TISBO. For those markets where we are proposing BT and KCOM to have SMP, we are proposing to impose certain regulatory obligations broadly corresponding to the regulatory regime currently in place.

1.7 In this consultation document, we set out the revised proposals relating to the markets for wholesale very high bandwidth Traditional Interface Symmetric Broadband Origination (TISBO). We invite comments from stakeholders on our proposed revised market definition, SMP assessment and regulatory remedies set out in this consultation document. In particular, we welcome comments on the proposal to regulate BT in the provision of 155 Mbit/s TISBO in the UK excluding the CELA and the Hull area, and the proposal to regulate KCOM in the provision of very high bandwidth 155 Mbit/s in the Hull area.

1.8 We are consulting on our proposals for a one month period before we finalise them and issue a final regulatory statement for all leased lines markets covered by the current review.

The January 2008 consultation

1.9 In paragraph 1.140 and following of the January 2008 consultation we set out an overview of our proposals for all retail and wholesale leased lines markets in the UK. We found wholesale very high bandwidth TISBO at bandwidths above 34/45 Mbit/s to operate in a separate nationwide market where no provider had SMP. There we proposed to find that all wholesale very high bandwidth TISBO at bandwidth above 45 Mbit/s were in a separate nationwide market (excluding the Hull area) in which we proposed that no provider had SMP.

1.10 We also proposed that the Hull area continues to constitute a separate market from the rest of the UK. In the very high bandwidth TISBO market in the Hull area, we proposed that KCOM had SMP. We proposed to regulate the supply of these lines in Hull, but proposed to accept KCOM's voluntary undertakings not to raise prices above RPI+0 for four years.

1.11 In the rest of the UK, where we proposed that no provider had SMP, we proposed to lift the current regulatory obligations on BT for the provision of wholesale very high bandwidth 155 Mbit/s TISBO.

Responses to the January 2008 consultation

1.12 We received 20 responses from stakeholders to the January 2008 consultation. Many respondents argued for a different market definition in relation to very high bandwidth TISBO circuits. In particular, it was argued that 155 Mbit/s TISBO were in a separate product market, in which BT had SMP, at least in some parts of the UK.

Differences to proposals set out in the January 2008 consultation

1.13 Having considered the responses and reviewed additional evidence, we now propose to make the following amendments to our original proposals.

Market definition

1.14 We are now proposing to define separate product markets for 155 Mbit/s and 622 Mbit/s.

1.15 In relation to the geographic scope of the relevant markets, we propose that the Hull area continues to constitute a separate market. In the rest of the UK, it is our proposal that separate markets exist for 155 Mbit/s TISBO in the CELA and the rest of the UK. For 622 Mbit/s TISBO we do not propose to define a separate geographic market for the CELA.

SMP assessment

1.16 We are proposing to find BT to have SMP in the provision of wholesale very high bandwidth 155 Mbit/s TISBO in the UK but excluding the CELA and the Hull area.

1.17 In the Hull area, we propose that KCOM has SMP in the very high bandwidth 155Mbit/s TISBO market.

1.18 We are proposing that no operator has SMP in the provision of very high bandwidth 622 Mbit/s TISBO in the UK and very high bandwidth 155 Mbit/s TISBO in the CELA.

Regulatory remedies

1.19 In the market for very high bandwidth 155 Mbit/s TISBO in the UK excluding the CELA and the Hull area, we are proposing to regulate BT by imposing the following obligations:

- A general obligation to provide network access on reasonable request;
- a requirement not to unduly discriminate;
- cost orientation;
- cost accounting and financial reporting obligations;
- charge controls;
- a requirement to publish a reference offer;
- an obligation to give 90 days notice of changes to prices, terms and conditions for existing services;
- an obligation to give 28 days notice of the introduction of prices, terms and conditions for new services;
- a requirement to provide quality of service information;
- a requirement to notify technical information with 90 days notice;
- obligations relating to requests for new network access; and
- an obligation to comply with the PPC Direction.

1.20 We propose that these conditions should also apply to the interconnection and accommodation services which can be considered as technical areas related to high bandwidth TISBO provision.

1.21 With respect to the Hull area, Ofcom proposes that KCOM should be subject to the following obligations in the markets for wholesale very high bandwidth 155 Mbit/s TISBO:

- a general access obligation to supply wholesale products upon request;
- a requirement not to unduly discriminate;
- a requirement to publish a reference offer; and
- a requirement to publish technical information.

1.22 We also propose to accept KCOM's voluntary undertaking not to increase prices for its wholesale 155 Mbit/s TISBO product by more than RPI+0% for four years from the entering into force of the new regulatory framework for leased lines. If KCOM were to fail to adhere to its voluntary undertaking, cost orientation and accounting separation conditions would come into effect. In addition, we are proposing not to regulate KCOM for the provision of interconnection and accommodation services in the Hull area.

Next steps

1.23 The proposals in this document are to be considered in the context of the proposals for market definition, SMP assessment and remedies in the other markets as set out in the January 2008 consultation. In particular, the proposals for retail leased lines, wholesale TISBO at low and high bandwidth, trunk segments, and wholesale AISBO at all bandwidths set out in the January 2008 consultation.

1.24 We invite stakeholders views on our proposals for market definition, SMP assessment and regulatory remedies, and the Impact Assessment set out in Section 6. The public consultation will close on 12 August 2008. Stakeholders have until then to send in their views.

1.25 We will then review the responses to this consultation in August 2008 and continue to consider representations received in relation to the January 2008 consultation, also where appropriate in the light of responses to this consultation. We will then publish a statement setting out our final decisions for all the retail and wholesale leased lines markets covered in this review.

Section 2

Introduction

Scope of the consultation

Services covered in this consultation

2.1 The current business connectivity market review covers all retail and wholesale leased lines services. In the January 2008 consultation, we outlined in paragraph 2.2 and following the services that are provided in leased lines markets.

2.2 This consultation is about a particular type of wholesale leased lines, namely the wholesale very high bandwidth leased lines provided with a traditional interface (TI) at speeds above 45 Mbit/s. These comprise terminating segments of wholesale leased lines primarily at speeds of 155 Mbit/s and 622 Mbit/s.

2.3 This consultation therefore focuses on some of the wholesale leased lines markets covered by the current review. These are the markets for very high bandwidth services, used by large businesses for data intensive applications. In the case of the 155 Mbit/s lines, they are also used by mobile operators to backhaul voice and data traffic onto their core networks.

Period covered by this review

2.4 In conducting this review, we have considered the level of competition and the level of regulation required to promote competition both now and on a forward looking basis. In doing so, we have taken the period for assessment as being the next four years.

The regulatory framework

2.5 The present regulatory framework for electronic communications networks and services entered into force on 25 July 2003. The framework is designed to create harmonised regulation across Europe and is aimed at reducing entry barriers and fostering prospects for effective competition to the benefit of consumers. The basis for the regulatory framework is five EU Communications Directives (together “the Directives”):

- Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (“Framework Directive”);
- Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (“Access Directive”);
- Directive 2002/20/EC on the authorisation of electronic communications networks and services (“Authorisation Directive”);
- Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services , (“Universal Service Directive”); and
- Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (“Privacy Directive”).

2.6 The Framework Directive, the Access Directive, the Authorisation Directive and the Universal Service Directive were implemented in the United Kingdom on 25 July 2003 via the Communications Act 2003 ("the Act"). The Privacy Directive was implemented by Regulation which came into force on 11 December 2003.

2.7 Article 16 of the Framework Directive requires each national regulatory authority (NRA) to carry out an analysis of the relevant markets as soon as possible after the adoption of the Recommendation on relevant product and service markets or any updating thereof.

2.8 The Commission adopted the first edition of the Recommendation on 11 February 2003[3]. Ofcom carried out a review of retail leased lines, symmetric broadband origination and wholesale trunk segments in 2003/04 with the final statement published on June 2004 ("the 2003/04 Review").

2.9 On 17 December 2007 the Commission has adopted the second edition of the Recommendation[4], under which some markets concerned in this review are no longer on the list of markets recommended as being susceptible to *ex ante* regulation[5]. However, none of the markets removed from the Commission's list is subject to a more detailed discussion in this particular consultation document.

The market review process

2.10 Each market review is carried out in three phases:

- a definition of the relevant market or markets;
- an assessment of competition in each market, in particular whether any undertakings have SMP in a given market; and
- an assessment of the appropriate regulatory obligations which should be imposed where there has been a finding of SMP.

2.11 More detailed requirements and guidance concerning the conduct of market reviews are provided in the Directives, the Act, and in additional documents issued by the Commission, the European Regulators Group (ERG) and Independent Regulators Group (IRG). As required by the new regime, in conducting this review, Ofcom has taken the utmost account of two European Commission documents: the Recommendation and the "Guidelines on market analysis and the assessment of SMP"[6] (the SMP Guidelines).

[3] Commission Recommendation2003/311/EC of 11 February 2003 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 communication networks and services.

[4] 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).

[5] See the Annex to the Recommendation.

[6] Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03).

The SMP Guidelines

2.12 The Commission issued the SMP Guidelines in July 2002 which provide guidance on the assessment of the relevant markets and the designation that an operator has SMP in any given market. Oftel has produced additional guidelines on the criteria to assess effective competition based on the SMP Guidelines[7].

2.13 Ofcom, in conducting its analysis set out in this consultation document, has taken the utmost account of both the Recommendation and the SMP Guidelines when identifying a services market and when considering whether to make a market power determination under Section 79 of the Act.

The 2003/04 review and the existing regulation

2.14 The 2003/04 Review found BT to have SMP in the wholesale markets for low and high bandwidth TISBO (i.e. speeds of up to and including 155 Mbit/s), AISBO at all speeds, and trunk segments. As a result of the SMP findings, a series of regulatory obligations were imposed on BT. These included:

- a general obligation to provide access on reasonable request;
- a requirement not to unduly discriminate;
- basis of charges obligations (cost orientation and a cost accounting system);
- price control for certain markets (not for AISBO or trunk markets);
- accounting separation obligations;
- a requirement to publish a reference offer;
- an obligation to give 90 days notice of changes to prices, terms and conditions for existing TISBO services;
- an obligation to give 28 days notice of the introduction of prices, terms and conditions for new TISBO services;
- same day notification of changes to prices, terms and conditions for wholesale trunk segment products;
- a requirement to provide quality of service information;
- a requirement to notify technical information with 90 days notice; and
- obligations relating to requests for new network access.

2.15 BT is also currently subject to:

- a Direction under the general access condition to provide Partial Private Circuits (PPCs) at a range of bandwidths, Radio Base Station (RBS) backhaul link products, and Local Loop Unbundling (LLU) backhaul products, subject to specific terms and conditions;

[7] see www.ofcom.org.uk/static/archive/oftel/publications/about_oftel/2002/smpg0802.htm

- a Direction under the cost orientation condition covering pricing matters relating to PPCs and LLU backhaul;
- a Direction under the quality of service condition to require specific information in respect of PPCs;
- a Direction under the general access condition to provide Ethernet-based LLU backhaul products, subject to specific terms and conditions; and
- a Direction under the cost orientation condition covering pricing matters relating to Ethernet-based LLU backhaul.

2.16 In addition, under the 2003/04 Review Ofcom found KCOM to have SMP in the wholesale low and high bandwidth TISBO markets (i.e. speeds up to and including 155 Mbit/s), and the AISBO market at all speeds in the Hull area, and imposed the following remedies:

- a general obligation to provide access on reasonable request;
- a requirement not to unduly discriminate;
- cost orientation and a cost accounting system;
- requirement to publish a reference offer; and
- requirement to notify technical information with 90 days notice.

Purpose of this review

2.17 The current regulatory framework has worked well in promoting competition in some markets, but in Ofcom's view has failed to deliver improved competitive conditions in others. As operators start rolling out Next Generation Networks (NGNs), it is important that the regulatory framework sets the right incentives for investments. Ofcom considers that we need to address the weaknesses to the current regime to ensure greater competition and innovation in the coming years in leased lines markets. In addition, many stakeholders have since the completion of the 2003/04 Review argued that the pace of changes in the market required a new market review.

2.18 For these reasons, Ofcom believes it is the right time to review the current regulatory framework. To this end, we set out in the January 2008 consultation our proposals for a new regulatory framework.

2.19 During the January 2008 consultation, many respondents put forward arguments in support of a different market definition for wholesale very high bandwidth TISBO than the one proposed by Ofcom. In particular, they argued that 155 Mbit/s TISBO were in a different market from 622 Mbit/s TISBO, and that in the former BT had SMP in some parts of the country, as the only supplier of these services.

2.20 After considering the respondents' views and arguments, we have reviewed our market definition in the light of new evidence, and are now proposing that there are sufficient arguments in support of two distinct product markets for very high bandwidth 155 Mbit/s and 622 Mbit/s TISBO. The two product markets are, in our view, characterised by distinct competitive conditions.

2.21 We propose to find that BT no longer has SMP in some parts of the UK in the provision of very high bandwidth 155 Mbit/s TISBO services. However, BT remains the only provider in most of the UK. As such, we propose to define a separate geographic market in the Central and East London Area (CELA) for this product market.

2.22 Having defined the relevant product and geographic markets we propose to find BT to have SMP in the UK (excluding the CELA and the Hull area) in the provision of very high bandwidth 155Mbit/s TISBO services. We also propose to find KCOM to have SMP in the provision of very high bandwidth 155Mbit/s TISBO services in the Hull area.

2.23 We are further proposing to find no operator to have SMP in the provision of very high bandwidth 622 Mbit/s TISBO services in the UK. Where we propose to find SMP in 155Mbit/s TISBO services, we are proposing to continue broadly with the remedies which currently apply to these services.

2.24 This consultation documents set out our preliminary conclusions and Ofcom is keen to receive the views of stakeholders on our proposed approach and findings for the leased lines markets covered in this consultation document.

Outline of this document

2.25 The main body of this consultation document is organised as follows:

1. Summary
2. Introduction
3. Retail market definition
4. Wholesale market definition
5. SMP assessment
6. Regulatory remedies and impact assessment

2.26 The following Annexes are enclosed:

1. Responding to this consultation
2. Ofcom’s consultation principles
3. Consultation response cover sheet
4. Consultation questions
5. List of respondents to the January 208 consultation
6. Geographic analysis
7. Draft SMP Conditions and directions
8. Glossary

Section 3

Retail market definition

Introduction

3.1 Section 79(1) of the Act provides that, before making a market power determination, Ofcom needs to define the relevant markets in which to assess market power. In defining relevant markets, Ofcom is required to take utmost account of all applicable guidelines and recommendations issued by the Commission and to issue a notification of its proposals[8]. Once markets are appropriately defined Ofcom can then analyse the competitiveness of those markets and identify appropriate remedies (if any).

3.2 The purpose of this Section is to define the relevant retail and wholesale markets in which the assessments of market power are to be undertaken. Its structure is as follows: first, the Commission's approach to market definition is set out based on its applicable guidelines and recommendations. This is followed by a discussion of Ofcom's general approach to market definition which is consistent with that of the Commission. Next, definitions of the relevant retail market are considered insofar as they are logically prior to and affect wholesale market definitions. This provides a basis for the further analysis of relevant markets in Sections 4 to 6.

Commission's approach to market definition

3.3 Ofcom has set out below some of the key aspects of the Commission's approach which Ofcom needs to consider when defining retail and wholesale leased line markets. This is primarily set out in the Recommendation and the explanatory memorandum (the "Explanatory Memorandum") to that document[9].

3.4 Recital 4 of the new Recommendation clearly states that the starting point for market definition is a characterisation of the retail market over a given time horizon taking into account the possibilities for demand and supply-side substitution. The wholesale market is defined subsequent to this exercise being carried out. This approach is repeated in Section 3.1 of the Explanatory Memorandum and is set out below and followed by Ofcom.

3.5 Section 2.1 of the new Explanatory Memorandum also states that because market analysis is forward-looking, markets are defined prospectively taking account of expected or foreseeable technological or economic developments over a reasonable horizon linked to the timing of the next market review. Again, this is the approach followed by Ofcom.

[8] Ofcom is required under Section 79(4) of the Act to issue a notification of its proposals for identified markets. It is entitled, by virtue of Section 79(5) of the Act, to issue this notification with its proposal as to a market determination and with its proposals for setting SMP services conditions. This document includes such a notification in Annex 15.

[9] Commission Staff Working Document, Explanatory Note to the 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 communication networks and services (Second edition).

3.6 Ofcom's product definition proposals are based on a forward looking view, taking into account reasonably available information on likely product market developments within the time horizon assessed in this review, as set out in the Introduction to this document. It includes the likely impact of those changes, if any, on our market definition proposals.

3.7 The Explanatory Memorandum goes on to state that market definition is not an end in itself, but a means to undertake an analysis of competitive conditions, for the purposes of determining whether *ex ante* regulation is required or not. Ofcom has adopted an approach by which this consideration is at the centre of its analysis.

3.8 Section 4 of the Explanatory Memorandum further states that retail markets should be examined in a way that is independent of the infrastructure being used, as well as in accordance with the principles of Competition Law. Again this approach is key to Ofcom's analysis. Ofcom's approach is based on a Competition Law assessment of markets and an assessment of the extent to which switching among services by consumers (demand-side substitution) or producers (supply-side substitution) could constrain prices, irrespective of the infrastructure used by the providers of those services, except where that may affect the ability or willingness of customers or producers to switch (for example because it affects the characteristics of the service offered).

Account taken of the EC Guidelines/Recommendations

3.9 In formulating its approach to market definition in the context of this market review, Ofcom is required to take the utmost account of all relevant guidelines and recommendations published by the Commission, including the Recommendation and SMP Guidelines.

3.10 In particular, in reaching its decision, Ofcom has taken the utmost account of the Recommendation. The second Recommendation identifies Market 6: wholesale leased lines as a relevant market in the Annex to the Recommendation. Market 6 is defined in the Recommendation as follows:

> "Wholesale terminating segments of leased lines irrespective of the technology used to provide leased or dedicated capacity"

3.11 Ofcom has given careful consideration to the Recommendation and considers that the approach to market definition adopted is consistent with the approach set out in the Recommendation and the Explanatory Memorandum.

General approach to market definition

3.12 There are two dimensions to the definition of a relevant market: the relevant products to be included in the market and the geographic extent of that market. Market boundaries are determined by identifying constraints on the price setting behaviour of firms. There are two main competitive constraints to consider: first, to what extent is it possible for consumers to substitute other services for those in question (demand-side substitution); and second, to what extent can suppliers switch, or increase, production to supply the relevant products or services (supply-side substitution) in response to a relative price increase.

3.13 The 'hypothetical monopolist test' (HMT) is a useful tool often used to identify close demand-side and supply-side substitutes. A product is considered to constitute a separate market if a hypothetical monopoly supplier could impose a small but

significant, non-transitory increase in price (SSNIP) above the competitive level without losing sales to such a degree as to make this price rise unprofitable. If such a price rise would be unprofitable, because consumers would switch to other products, or because suppliers of other products would begin to compete with the hypothetical monopolist, then the market definition should be expanded to include the substitute products.

3.14 Throughout this Section, markets have been defined first on the demand-side. The analysis of demand-side substitution has been undertaken by considering if other services could be considered as substitutes by consumers, in the event of the hypothetical monopolist introducing a SSNIP above the competitive level.

3.15 Supply-side substitution possibilities have then been assessed to consider whether they provide any additional constraints on the pricing behaviour of the hypothetical monopolist which have not been captured in the demand-side analysis. In this assessment, supply-side substitution is considered to be a low cost form of entry which can take place within a reasonable time frame[10] (e.g. up to 12 months). The key point is that, for supply-side substitution to be relevant, not only must suppliers be able, in theory, to enter the market quickly and at low cost by virtue of their existing position in the supply of other services or areas, but there must also be an additional competitive constraint arising from such entry into the supply of the service in question.

3.16 Therefore, in identifying potential supply-side substitutes it is important that providers of these services have not already been included as existing suppliers of services included in the market as demand-side substitutes. There might be suppliers who provide other services but who might also be materially present in the provision of demand-side substitutes to the service for which the hypothetical monopolist has raised its price. Such suppliers are not relevant to supply-side substitution since they supply services already identified as demand-side substitutes. As such, their entry has already been taken into account and so supply-side substitution from these suppliers cannot provide an additional competitive constraint on the hypothetical monopolist. However, the impact of expansion by such suppliers can be taken into account in the assessment of market power.

3.17 Another factor that is sometimes an additional consideration in setting market boundaries is whether there exist common pricing constraints across consumers, services or areas (i.e. areas in which a firm voluntarily offers its services at a geographically uniform price). Where common pricing constraints exist the geographic areas in which they apply could be included within the same relevant market even if demand-side and supply-side substitution are not present. Failure to consider the existence of a common pricing constraint could lead to unduly narrow markets being defined.

3.18 Ofcom's approach also takes into account the SMP guidelines. In particular, paragraph 56 states that:

> "According to established case-law, the relevant geographic market comprises an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in

[10] See the SMP guidelines at paragraph 52 http://europa.eu/eur-lex/pri/en/oj/dat/2002/c_165/c_16520020711en00060031.pdf#search=%22Commission%20guidelines%20on%20market%20analysis%20and%20the%20assessment%20of%20significant%20market%20power%20under%22

> which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different…".

3.19 Hence, subject to the relevant caveats above, where there are geographic areas where competitive conditions are sufficiently homogenous the definition of the relevant geographic market will include all of those areas within one market.

Relationship between the wholesale and retail markets

3.20 Ofcom is required to consider both retail and wholesale leased lines markets as part of its review. Whilst it is clearly necessary to define retail markets in order to assess the existence of market power at this level, it is also necessary to do so where, as here, the focus of the market review is primarily at the wholesale level. This is because the analysis of retail market definitions is logically prior to the definition of wholesale markets, because the demand for the upstream wholesale service is a derived demand, that is the level of the demand for an upstream input depends on the demand for the retail service. Hence, if the upstream input accounts for a sufficiently large proportion of the downstream price, the range of available substitutes at the downstream (retail) level will inform the likely range of substitutes for the upstream (wholesale) service. This is because a rise in the price of a wholesale service which is passed through in the price of one retail service will cause retail customers to switch to substitute retail products, reducing demand for the wholesale input.

3.21 In the current review it is therefore necessary to start by defining the retail market boundaries, as the demand for wholesale leased lines is ultimately derived from the demand for retail services for which those inputs are used. In some cases a wholesale leased line service may be used as an input to a number of markets that are defined as separate at the retail level (and potentially outside the scope of the retail leased line market). Ofcom therefore needs to take into account the possibility that wholesale products or services may be used as inputs to a number of downstream retail markets.

Relevance of existing regulation

3.22 When Ofcom conducts its analysis to define the relevant retail and wholesale markets it assumes that there is no SMP related regulation in place in the market being considered. To do otherwise would mean that the subsequent wholesale market power assessment would depend on a retail market definition that relied on a wholesale regulatory remedy arising from the finding of wholesale market power. This would be a circular and incorrect approach to market definition. Ofcom has therefore considered the demand-side and supply-side substitution possibilities at the retail level only if they are economically viable in the absence of regulation in the market being considered.

3.23 On the other hand it is appropriate at the wholesale level to take into account any regulation that is upstream of the markets being considered, as this upstream regulation has the potential to affect the competitive state of downstream markets; indeed this is generally one of the main intentions of the upstream regulation. For example, the availability of regulated LLU products could be used to provide symmetric DSL services and could potentially impact on operator's build or buy decisions regarding the particular retail products they provide and which may act as potential substitutes to leased lines services. An important element of the analysis

is therefore to identify any upstream regulation that may impact on retail or wholesale markets Ofcom is considering.[11]

3.24 In addition to regulation that exists upstream of the relevant market, regulation may also exist independently of any finding of SMP in the relevant market. For example, BT Group plc agreed to offer Undertakings in lieu of a reference to the Competition Commission under Section 155(1) of the Enterprise Act 2002. The Undertakings sit alongside BT's other existing competition and regulatory obligations and a number of aspects of the Undertakings exist independently of this review (i.e. some of the Undertakings agreed do not require a finding of SMP from this or other market reviews).

3.25 The Undertakings include the following key features:

- Establishment of Openreach as a new and operationally separate business unit, with a distinct brand identity, responsible for the local access and backhaul network.

- Requirement on Openreach to support all communication providers' activities, including those of BT, on an exactly equivalent basis ('equivalence of input'). This means that all companies will benefit equally from the same products, prices and processes when they order, install, maintain and migrate connections for their customers.

- Requirement to offer universally available product and services. This includes use of BT Group plc's access network, the ability to offer line rental on an unbranded basis (wholesale line rental and unbundled local loops) and the use of transmission capacity from BT Group plc's exchanges to competitors' own networks (backhaul).

3.26 This means that where equivalence of input obligations apply the relevant wholesale access and backhaul products should be made available for other communication providers on the same terms and conditions as for the relevant BT wholesale services to enable communication providers to provide retail leased line services.

3.27 However, it is not necessarily the case that all aspects of the Undertakings would apply if Ofcom did not find SMP in leased lines markets. For example, the Undertakings refer to different cost orientation conditions for wholesale leased line products depending on whether SMP is found to exist for the services. The market definition process has therefore been conducted in the presence of currently operational BT Undertakings apart from any regulation or those parts of the Undertakings that would cease to apply in the absence of SMP.

The current market definition

3.28 The 2003/04 Review identified the following retail markets for leased lines in the UK:

[11] Ofcom recognises that any upstream regulations that may impact on the wholesale markets could be subject to further review during the period of this market review. In the event that regulation in those markets is revoked or modified, Ofcom will need to consider whether it is appropriate to conduct a further review of the wholesale market. However, the working assumption for the purposes of this review is that the existing regulations will remain for the period of this market review (i.e. over the next 4 years).

- Market for analogue and digital low bandwidth TI retail leased lines in the UK excluding the Hull area;
- Market for analogue and digital low bandwidth TI retail leased lines in the Hull area;
- Market for high bandwidth TI retail leased lines at speeds above 8 Mbit/s and up to and including 155 Mbit/s in the UK excluding the Hull area;
- Market for high bandwidth TI retail leased lines at speeds above 8 Mbit/s and up to and including 155 Mbit/s in the Hull area;
- Market for very high TI retail leased lines at speeds above 155 Mbit/s in the UK excluding the Hull area;
- Market for very high TI retail leased lines at speeds above 155 Mbit/s in the Hull area;
- Market for retail Alternative Interface (AI) leased lines at all speeds in the UK excluding the Hull area; and
- Market for retail Alternative Interface (AI) leased lines at all speeds in the Hull area.

Product market definition

Introduction

3.29 In the January 2008 consultation, we asked the following questions in relation to our proposed retail product market definition:

> Question 1: Do stakeholders agree with our proposed retail market definition? In particular, do you agree that separate markets continue to exist for traditional interface and alternative interface retail leased lines?
>
> Question 2: Do stakeholders believe that there is evidence that might support an alternative view?

3.30 In this document, we have considered the responses in relation to the markets for wholesale very high bandwidth TI, comprising of circuits above 34/45 Mbit/s, as we have set out to revise our proposals for market definition and SMP assessment for these markets. Below we first summarise the January 2008 consultation proposals relating to product market definition. We then present the key issues raised by respondents and give our view. We then review the product market definition in the light of the responses, and set out our revised proposals.

Summary of January 2008 proposals

3.31 In the January 2008 consultation we conducted analysis to assess the relevant retail product market definitions. Our proposed market definition is set out in Table 3.1 below.

Table 3.1: Summary of proposed retail product market definition in the January 2008 consultation document

Retail product markets	Bandwidth breaks		
Traditional interface retail leased lines	**Low** Up to and including 8Mbit/s (including analogue and SDSL services)	**High** Above 8Mbit/s up to and including 45Mbit/s	**very high** Over 45 Mbit/s
Alternative interface leased lines	**Low** Up to and including 1Gbit/s	**High** Over 1 Gbit/s	

3.32 The analysis set out in the January 2008 consultation pointed to the existence of three distinct product markets for traditional interface retail leased lines:

- Low bandwidth: up to and including 8Mbit/s;
- High bandwidth: above 8Mbit/s, up to & incl. 45Mbit/s; and
- Very high bandwidth: above 45Mbit/s.

3.33 Our analysis of the relevant product market definition issues is set out in paragraphs 3.314 to 3.359 of the January 2008 consultation.

3.34 Our analysis was based on examining whether users of one particular bandwidth service would switch to another bandwidth service in response to a SSNIP. Our survey results suggested that end users are rarely willing to compromise on bandwidth. However, two services offering different bandwidths may still be substitutes if overall they enable an end-user to obtain the same or more bandwidth (implying that lower bandwidth services may operate in the same market as higher bandwidth services if an end-user is able to obtain multiple low bandwidth circuits across a particular route).

3.35 Specifically, we used current BT wholesale price data as a proxy for competitive retail prices and applied a 10% SSNIP to those prices. The purpose of this exercise was to analyse whether the prices of different bandwidth leased lines offered over the same interface were likely to constrain each other sufficiently to indicate that different bandwidth products operated in the same market. We examined both whether users of low bandwidth services would switch to high bandwidth services in response to a SSNIP on their existing service, and also whether users of high bandwidth services would switch to buying multiple lower bandwidth services in response to a SSNIP.

3.36 This price analysis suggested that bandwidth breaks existed at around 8Mbit/s, 34/45Mbit/s and 155Mbit/s. This was because there were significant price jumps at these levels (indicating that at these levels a SSNIP applied on a bandwidth service

below these levels would not prompt switching to higher bandwidth services). These results continued to apply under a range of different scenarios which we conducted to test the sensitivity of our initial results.

3.37 In the light of responses, Ofcom has reviewed the definition of the very high bandwidth TISBO market. However, only the range of bandwidths which it is appropriate to include in the market has been reconsidered. Other aspects of the market definition, for example the exclusion of AISBO circuits and ADSL and VPN services, are unaffected. The relevant points from the responses received and Ofcom's revised reasoning and proposals are set out below.

Responses to the January 2008 consultation and Ofcom's response

3.38 Most OCPs and various mobile network operators (MNOs) disagreed with our view that 155 and 622 Mbit/s services operated in the same market. They claimed that the competitive conditions of these two services differed substantially, suggesting that the two services operated in separate markets.

3.39 The methodology used in the January 2008 consultation which led us to place 155 and 622 Mbit/s lines in the same market was similar to that used in the 2004 review.[12] This considered the lowest cost way of meeting a particular bandwidth requirement and the extent to which this is affected by a SSNIP. If the analysis suggests that there is likely to be switching between higher and lower bandwidth circuits (in this case, 155 and 622 Mbit/s lines) over a significant range of bandwidth demand, this indicates that circuits at different bandwidths form a single market due to the existence of a 'chain of substitution'.

3.40 However, the existence of this chain depends on the distribution of customers according to demand for bandwidth. Specifically, in the case of 155 Mbit/s lines, these are only constrained by 622 Mbit/s lines if a customer acquires four or five 155 Mbit/s along the same route (i.e. if a customer is acquiring multiple 155 Mbit/s services as part of a higher bandwidth requirement*)*. Because 622 Mbit/s lines are significantly more expensive than 155 Mbit/s lines, where 155 Mbit/s lines are acquired as single lines across a particular route (i.e. where customers only wish to acquire 155 Mbit/s of bandwidth) they are unlikely to be constrained by the price of 622 Mbit/s services. This remains the case even after a SSNIP is imposed on the 155 Mbit/s line.

3.41 Since the publication of the January 2008 consultation, we have received feedback that in fact most 155 Mbit/s lines are acquired as single lines along a particular route. To test these claims more systematically, we have performed analysis which shows that about 70% of retail 155 Mbit/s are provided with different customer ends i.e. only 30% of 155 Mbit/s lines link the same two points as another 155 Mbit/s line. This implies that most 155 Mbit/s lines are acquired as single circuits rather than as multiple lines across the same route. The proportion of customers likely to switch in the event of a SSNIP is therefore likely to be low which, given also the ability to price discriminate, suggests that the price of 155 Mbit/s lines will generally not be constrained by 622 Mbit/s lines (suggesting the two services operate in separate retail markets).

[12] In the 2003/04 Leased line market review this methodology (as well as other considerations such as the low number of 622 Mbit/s ends) led us to conclude that 155 and 622 Mbit/s lines belonged in separate markets.

3.42 Even if there was a break in the chain of substitution, we could regard 155 and 622 Mbit/s circuits as being part of the same market if the competitive conditions of the two services were sufficiently homogeneous.[13] However, the evidence suggests that the competitive conditions of 155 Mbit/s and 622 Mbit/s lines differ significantly. BT appears to have around 11% of retail 622 Mbit/s sales, but around 49% of 155 Mbit/s lines in the UK excluding Hull. This result does not seem to be explained by 'small number' issues because significant quantities of both lines are supplied.[14]

3.43 Summing up, the evidence now available to us and set out above suggests that 155 and 622 Mbit/s lines operate in separate markets. In particular, the evidence suggests that 155 Mbit/s lines are generally acquired as single lines across a particular route. Because 622 Mbit/s lines are significantly more expensive than 155 Mbit/s lines, where 155 Mbit/s lines are acquired as single lines across a particular route they are unlikely to be constrained by the price of 622 Mbit/s services.

3.44 If we decide that 155 Mbit/s services belong in a separate market to 622 Mbit/s services, the next question to consider is whether 155 Mbit/s services operate in a standalone market or whether they operate in a market with other services i.e. 34/45 Mbit/s services.

3.45 We conducted extensive analysis on this point in the January 2008 consultation and concluded that 34/45 and 155 Mbit/s services are likely to operate in different markets. This view is primarily based on our bandwidth break analysis. This suggests that there is a sufficiently large price difference between 34/45 and 155 Mbit/s services that users wanting bandwidth at 34/45 Mbit/s (or below) will always prefer this to 155 Mbit/s lines (even if a SSNIP is imposed on 34/45 Mbit/s lines).

3.46 It is also the case that users wishing to acquire 155 Mbit/s of bandwidth or more will generally use a single 155 Mbit/s to provide the necessary service (rather than multiple 34/45 Mbit/s lines). This is because the price of two or three 34/45 Mbit/s far exceeds a single 155 Mbit/s.

3.47 Since the publication of the January 2008 Consultation, we have undertaken a sensitivity analysis of our bandwidth break analysis. This was carried out on the basis of adjusted data[15] which confirms our view that 34/45 Mbit/s lines operate in a separate market from 155 Mbit/s lines.

3.48 In conclusion, after reviewing additional evidence and conducting further analysis we continue to propose that 155 Mbit/s services operate in a separate market to 34/45 Mbit/s services.

[13] Although homogeneity of competitive conditions is usually used in the context of geographic market definition as a reason for aggregating different areas not linked by demand or supply side substitution, it might also be used in the product market context.

[14] Around 721 622 Mbit/s ends are provided, as against around 1,224 155 Mbit/s ends.

[15] This data has been adjusted to take into account complaints from some stakeholders that the data used in our original analysis did not reflect the "competitive price" benchmarks appropriate to a SSNIP test. This was a general complaint that was made about our bandwidth analysis, and not a complaint that focussed on our findings in relation to 34/45 and 155 Mbit/s markets (which stakeholders generally supported).

Review of proposals and conclusions

3.49 After careful consideration of the evidence, we propose to modify our proposal for the market definition for very high bandwidth TI services (as set out in the January 2008 consultation to comprise all 155 Mbit/s and 622 Mbit/s traditional interface services).

3.50 We now propose to define two separate markets for the following services:

- very high bandwidth 155 Mbit/s TISBO, comprising of circuits at speeds above 45 Mbit/s up to and including 155 Mbit/s; and
- very high bandwidth 622 Mbit/s TISBO, comprising of circuits at speeds above 155 Mbit/s and including 622 Mbit/s.

3.51 Table 3.2 sets out these proposed market definitions.

Table 3.2: Summary of proposed retail product market definitions

Retail product markets	**Bandwidth breaks**	
Traditional interface ('digital') retail leased lines	**Very High** 155 Mbit/s	**Very High** 622 Mbit/s

Geographic market definition

Introduction

3.52 Having reviewed our proposed product market definitions for 155 Mbit/s and 622 Mbit/s TI services we now set out our proposals for the geographic scope of these two product markets.

3.53 Our analytical framework for defining the geographic scope of the relevant retail markets was explained in detail in Section 4 of the January 2008 consultation document. This explained that there would be a separate geographic market in the Hull area for each of the relevant product markets considered in that consultation. For the rest of the UK, we explained why, for leased lines markets, an analysis of demand-side and supply-side substitution will generally lead to the definition of very narrow geographic markets and thus is not relevant to assessing the geographic market definition. In this light, Ofcom's analytical framework for the UK (excluding the Hull area) focussed on the presence of common pricing constraints and geographic variations in competitive conditions.

3.54 Our assessment of geographic market definition for the revised product markets in the UK considers in principle the same factors as in the January 2008 consultation.

Summary of January 2008 consultation proposals

3.55 Our retail geographic analysis in that consultation had three main elements:

- an analysis of retail service shares on a postal sector basis, using retail circuit information provided by operators;

- consideration of consumer survey evidence which found that around half of businesses use more than one supplier to provide business connectivity services, with the propensity to do so positively correlated with business size; and

- consideration of BT's pricing policies, which can inform the extent to which there exists a common pricing constraint across geographic areas.

3.56 In the January 2008 consultation we considered that for the very high bandwidth traditional interface retail leased lines market the available evidence was inconclusive as to whether the geographic scope of that market was national (in the UK excluding the Hull area) or local in scope. The Hull area was defined as a separate market.

Responses to the January 2008 consultation and Ofcom's response

3.57 In the January 2008 consultation, we asked the following questions:

> Question 3: Do stakeholders agree with our proposed approach to geographic market definition?
>
> Question 4: Do stakeholders agree with our proposed retail geographic market definitions?

3.58 A number of the respondents to these questions raised issues which are relevant to our consideration of geographic market definition for the revised 155Mbit/s and 622 Mbit/s traditional interface retail leased lines product markets. We summarise and address each of these below.

Pricing to inform market definition

3.59 BT, in its response, agreed with the approach of identifying geographic areas with similar competitive conditions to inform geographic market boundaries. However, BT disagreed that national pricing can be indicative of a national market and consider Ofcom's approach to be inconsistent with the European Commission's guidance. In particular, BT argued that it cannot be the case that pricing decisions of one supplier can define the scope of a market.

3.60 Ofcom disagrees with BT that national pricing cannot be indicative of a national market. Where common pricing constraints exist this can have the effect of extending the constraints present in one geographic area into other geographic areas. However, that is not to say that if a single operator were to change its pricing polices and begin to charge on a local basis that the market would automatically become local. The motivations for the change in pricing policy would need to be understood, for example, to explore whether there is evidence that the change was motivated by geographic variations in competitive conditions. Moreover, it would not necessarily be the case that the geographic area over which prices are the same would constitute the boundary of the relevant geographic market.

3.61 Ofcom also disagrees that consideration of pricing policies and common pricing constraints is inconsistent with the European Commission's guidance. Common pricing constraints can indicate the geographic areas in which competitive conditions are similar. Moreover, Ofcom notes for example the European Commission's comments letter to the Austrian NRA, on its notification of its analysis for the

wholesale broadband access market in Austria[16]. The European Commission in its comments letter recognised the relevance of national pricing in the NRA's decision to define the geographic scope of the wholesale market as national[17].

Geographic analysis in retail leased lines markets is not practical

3.62 A number of respondents argued that it is not practical to undertake geographic analysis in retail leased lines markets. This is because the products in these markets are point to point in nature and as such any analysis has to be undertaken on the combination of the two ends of the circuit.

3.63 We disagree with these respondents. The scope of the relevant markets should be defined in reference to the available evidence. This remains the case when assessing whether markets are local, even if this is more complex than defining the market to be national. In addition, we recognise that retail leased lines have two ends which, by definition are in different locations and we take account of this in our market analysis. However, we do not consider that this precludes the finding of local retail markets.

The Hull area

3.64 A number of respondents questioned whether it remains appropriate to define the Hull area as a separate geographic market at the retail level as very few leased lines would have both ends located within the relevant geographic area.

3.65 We consider that the evidence continues to suggest that a local geographic market exists in the Hull area for retail leased lines. There is a separate network in the Hull area and there are different constraints present in the Hull area compared to the rest of the UK. This on the basis that KCOM is by some distance the largest CP, with a much larger network reach than other CPs throughout the Hull area. It is also the case that KCOM prices on a geographically uniform basis throughout the Hull area, which provides further support to a finding of the Hull area as a separate local geographic market.

Geographic market definition for the retail very high bandwidth 155Mbit/s TI market

3.66 Figure 3.1 sets out BT's service share by postal sector in the 155Mbit/s traditional interface retail leased lines market for the UK as a whole, with Figure 3.2 showing the CLZ[18] and Figure 3.3 the City of London, with the boundary of each of these areas identified by the black boundary line.

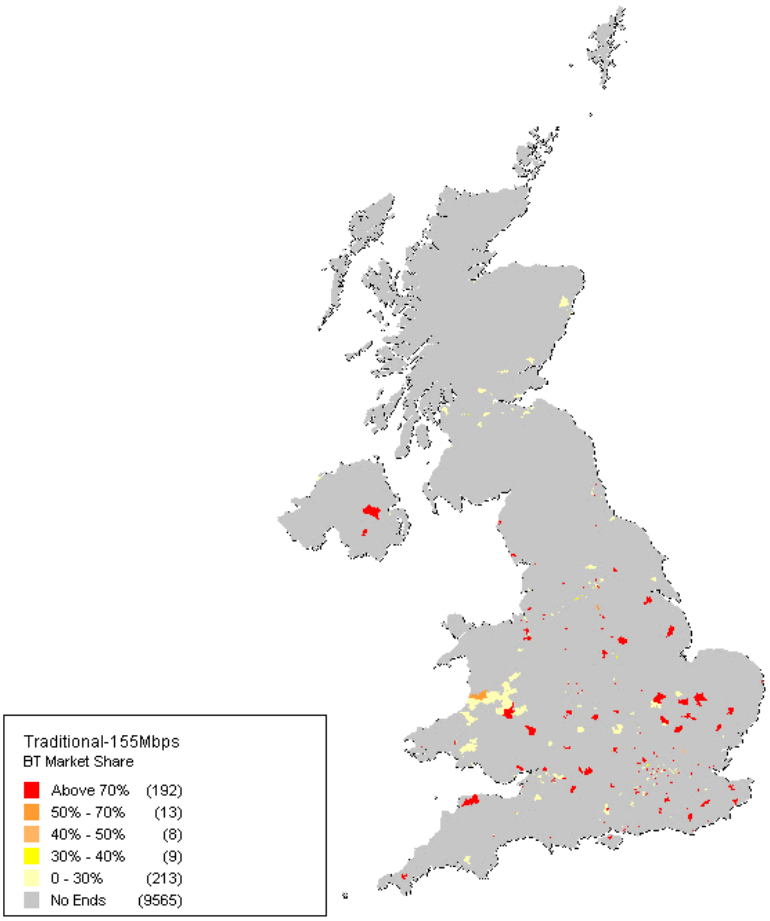
16 http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/sterreich/registeredsnotifications/at20080757/at-2008-0757_enpdf/_EN_1.0_&a=d

17 Page 7.

18 The Central London Zone ('CLZ') corresponds to the 020 7 dialling code area.

Retail service shares

Figure 3.1: BT's service share in the very high bandwidth 155Mbit/s TI market in the UK[19]



[19] The legends on Figure 3.1 to 3.6 referring to "BT market share" should be read as "BT service share".

Figure 3.2: BT's service share in the very high bandwidth 155Mbit/s TI market in the CLZ

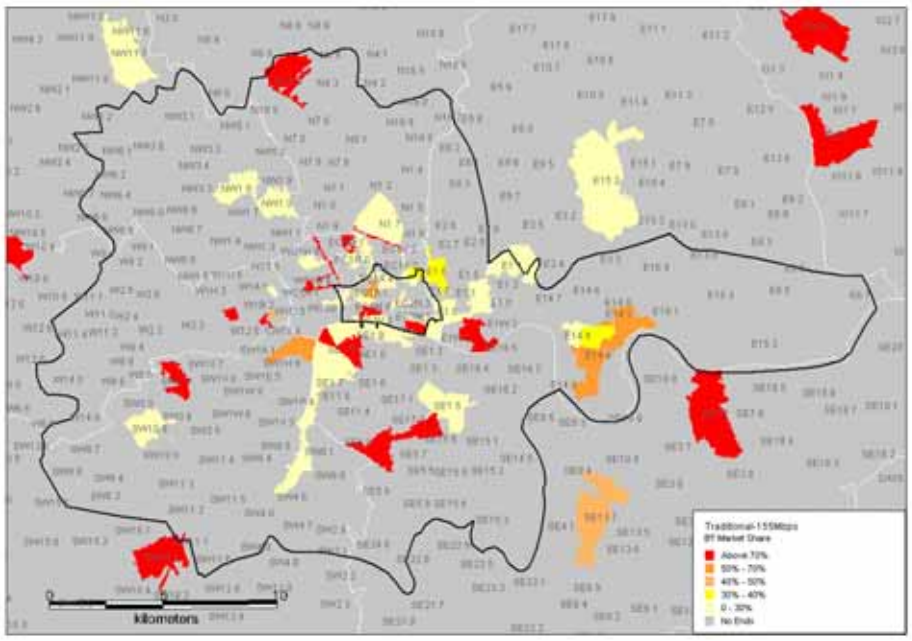
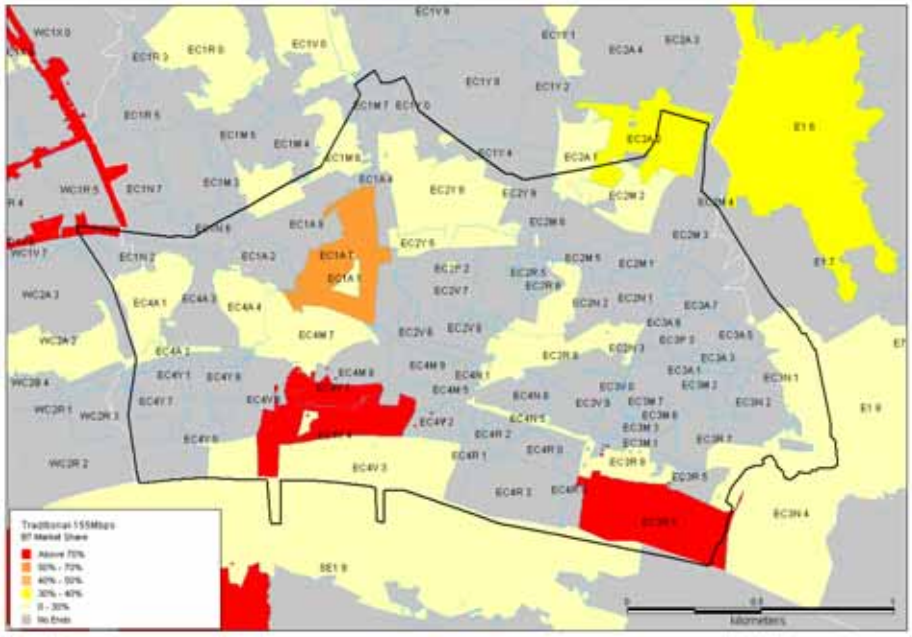


Figure 3.3: BT's service share in the very high bandwidth 155Mbit/s TI market in the City of London



3.67 These Figures show that there is some geographic variation in BT's local service share of 155Mbit/s traditional interface retail leased lines services. However, as we noted in the January 2008 consultation, these local service shares are calculated on the basis of the provision by BT of regulated wholesale inputs. As such, the picture may be different absent the presence of such upstream regulation. However, in the context of 155Mbit/s traditional interface retail leased lines services, this market review and this consultation is concerned with the wholesale level. Therefore, it is not necessary to come to a definitive view of the precise scope of the retail geographic market.

Consumer survey evidence

3.68 Our consideration of the available consumer survey evidence remains the same as from the January 2008 consultation. That is to say that around half of businesses use more than one supplier to provide business connectivity services, with the propensity to do so positively correlated with business size.

BT's pricing policies

3.69 BT prices its 155 Mbit/s traditional interface retail leased lines services at a discount in a number of metropolitan areas, including the CLZ. This indicates that there may be geographic variations in competitive conditions, with greater competitive constraints being present in some metropolitan areas.

Geographic market definition for the retail very high bandwidth 622 Mbit/s TI market

3.70 Figure 3.4 sets out BT's service share by postal sector in the 622 Mbit/s traditional interface retail leased lines market for the UK as a whole, with Figure 3.5 showing the CLZ and Figure 3.6 the City of London, with the boundary of each of these areas identified by the black boundary line.

Retail service shares

Figure 3.4: BT's service share in the very high bandwidth 622 Mbit/s TI market in the UK

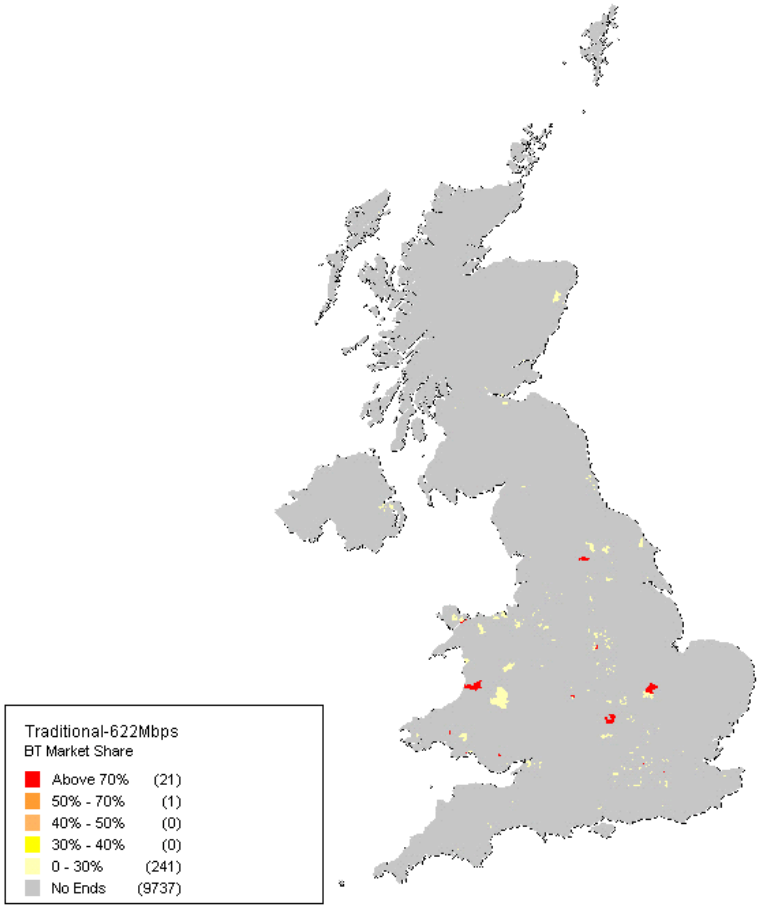


Figure 3.5: BT's service share in the very high bandwidth 622 Mbit/s TI market in the CLZ

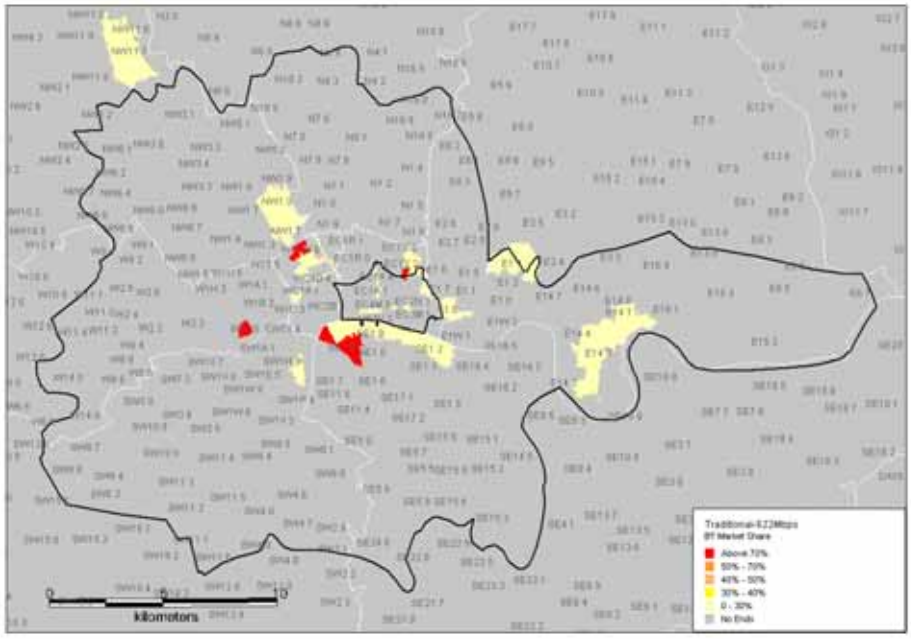
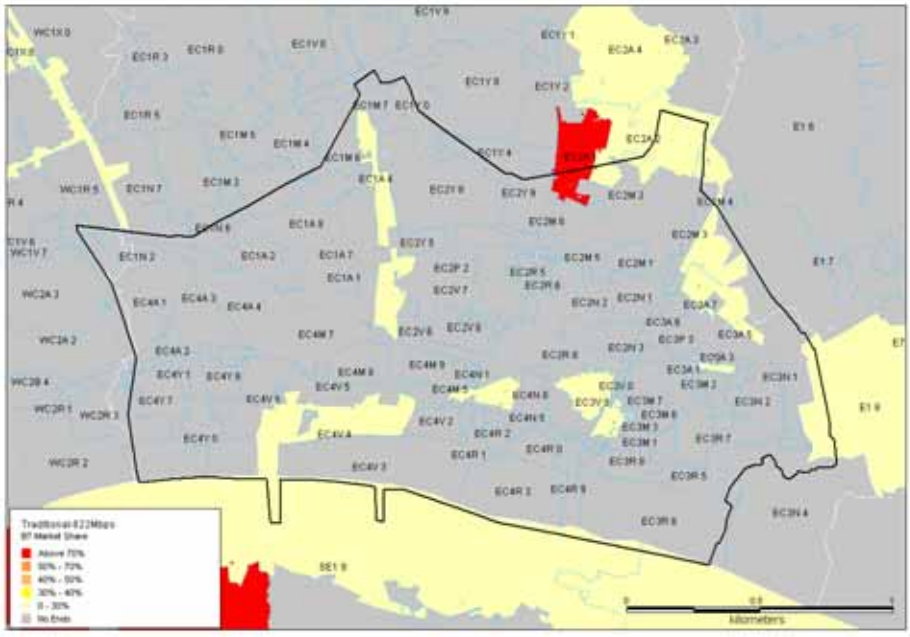


Figure 3.6: BT's service share in the very high bandwidth 622 Mbit/s TI market in the City of London



3.71 These Figures show that there are very few postal sectors in which retail 622 Mbit/s TI retail leased lines services are provided and that BT's local service share is generally low. This might suggest that there is little evidence of geographic variation in competitive conditions in the provision of these retail services. However, in the context of 622 Mbit/s traditional interface retail leased lines services, this market review and this consultation is concerned with the wholesale level. Therefore, it is not necessary to come to a definitive view of the precise scope of the retail geographic market.

Consumer survey evidence

3.72 As with the 155Mbit/s traditional interface retail leased lines market, our consideration of the available consumer survey evidence remains the same as from the January 2008 consultation. That is to say that around half of businesses use more than one supplier to provide business connectivity services, with the propensity to do so positively correlated with business size.

BT's pricing policies

3.73 We do not have any transparency as to BT's pricing policies with respect to 622 Mbit/s and above traditional interface retail leased lines services. However, we could expect that BT chooses to price these services on a bespoke basis to its retail customers.

Conclusions

3.74 The analysis of retail service shares, consumer research and BT's pricing policies are inconclusive as to whether the geographic market of the 155Mbit/s traditional interface retail leased lines market and the 622 Mbit/s traditional interface retail leased lines market are national or local in scope. However, as this consultation is concerned with reviewing the related upstream wholesale markets for these services, it is not necessary to come to a definitive conclusion on these questions.

Question 1: Do stakeholders agree with our retail market definition proposals? In particular, do you agree with our proposal to define separate product markets for traditional interface ('TI') retail leased lines - 155 Mbit/s services and traditional interface ('TI') retail leased lines - 622 Mbit/s services?

Section 4

Wholesale market definition

Introduction

4.1 This Section sets out to review the wholesale product and geographic market definition for very high bandwidth 155 and 622 Mbit/s TISBO markets in the UK.

Current market definition

4.2 The current market definition for wholesale TISBO at 155 Mbit/s and 622 Mbit/s, as set out by the 2003/04 Review, is the following:

- market for wholesale high bandwidth TISBO at speeds above 8 Mbits/s up to and including 155 Mbit/s in the UK excluding the Hull area;
- market for wholesale very high bandwidth TISBO at speeds above155 Mbit/s in the UK excluding the Hull area;
- market for wholesale high bandwidth TISBO at speeds above 8 Mbits/s up to and including 155 Mbit/s in the Hull area; and
- market for wholesale very high bandwidth TISBO at speeds above155 Mbit/s in the Hull area.

Product market definition

Introduction

4.3 In the January 2008 consultation, we asked the following question:

> Question 5: Do stakeholders agree with our proposed wholesale product market definitions? In particular, do you agree with Ofcom that: i) a separate market now exists for high bandwidth AISBOs, and ii) the very high bandwidth TISBO market now includes circuits at bandwidths above 140/ 155 Mbit/s?

4.4 Below we first summarise the current market definition applying to these products. We then present the key issues raised by respondents and give our view. We review the product market definition in the light of the responses, and set out our revised proposals.

Summary of January 2008 proposals

4.5 In the January 2008 consultation document we assessed the relevant bandwidth breaks for wholesale product market definition, taking into account our proposed retail product markets definitions as set out in Section 3. We set out in Table 4.1 below our proposed bandwidth breaks for the TISBO markets.

Table 4.1: Summary of proposed wholesale product market definition in the January 2008 consultation document

Wholesale product markets	Bandwidth breaks		
Traditional interface symmetric broadband origination (TISBO)	**Low** Up to and including 8Mbit/s	**High** Above 8Mbit/s up to and including 45Mbit/s	**very high** Over 45 Mbit/s

4.6 We considered that the bandwidth breaks at the wholesale level would correspond to the breaks at the retail level based on a derived demand approach. Therefore our proposed bandwidth breaks for the TISBO wholesale product market definition exactly followed the bandwidth breaks that we identified for corresponding retail products.

Responses to the January 2008 consultation and Ofcom's response

4.7 The following paragraphs summarise the respondents views in respect of our proposed bandwidth break for wholesale markets. In particular, the wholesale very high bandwidth markets for TISBO circuits above 45 Mbit/s.

4.8 We provide our consideration and response to respondents' views in relation to our bandwidth breaks for the very high bandwidth markets. This is in addition to our considering of wholesale bandwidth breaks in light of our proposed revised definition of bandwidth breaks at the retail level.

Proposed bandwidth breaks

4.9 BT agreed with our proposed TISBO market breaks. A number of OCPs did not agree with the very high bandwidth TISBO market that we identified. In particular, some CPs were concerned with respect to the bandwidth break between circuits of 34/45 Mbit/s and 140/155 Mbit/s and the inclusion of 155 Mbit/s in the very high market. A number of CPs argued that they were still reliant on BT for 155 Mbit/s circuits in many parts of the country. Therefore, those CPs did not support the inclusion of 155 Mbit/s circuits in a very high bandwidth market with 622 Mbit/s circuits as competitive conditions were not similar between the two markets.

4.10 We have considered the views and evidence provided to us by stakeholders, and we have modified our proposed product market definition as a result. We set out our revised product market definitions at paragraph 4.20 and following.

Mapping retail bandwidth breaks onto TISBO markets

4.11 Some CPs were concerned that there was limited analysis of the way in which retail bandwidth breaks might map onto wholesale markets. Many CPs were concerned about our use of wholesale pricing/cost data to inform market definition. One respondent suggested that there was no assessment of whether the wholesale competitive conditions were different to the competitive conditions used to identify any breaks we proposed at the retail level.

4.12 Two respondents argued that there were significant differences between wholesale and retail demand characteristics and that an analysis of bandwidth splits which did not take these into account could be misleading. Much of the wholesale demand for 155 Mbit/s links is for network connectivity for CPs or data centre sites. The business case for building out to these areas is very different to the case supporting building out to a large office building (i.e. incremental cost of adding capacity to the former sites is relatively low).

4.13 In their view, the overall demand for CP or data centres would be many times higher (i.e. Gbit/s rather than Mbit/s). And a circuit of 155 Mbit/s would typically be just one of many services that will be provided to this site. The overall capacity to the site drives any decision to build new fibre to those locations. One of these respondents therefore argued that Ofcom should take into account the fact that there may be much larger bandwidth requirements (i.e. CPs will consider purchasing multiple wholesale 155 Mbit/s circuits).

4.14 CPs were concerned that we did not provide sufficient evidence to rely on the bandwidth breaks seen in retail markets to inform our bandwidth breaks at the wholesale level. We have further set out below how wholesale services are used to provide different bandwidth retail markets and why we think the same bandwidth breaks should be identified at both the retail TI and wholesale TISBO services.

4.15 Our retail market definitions are informed by estimates of wholesale costs of providing those services. These estimates are based on BT's wholesale input prices, which are subject to a regulatory requirement to be related to costs. For this reason, we considered that this price information would provide the best available indication of the likely relative differences in the competitive price for retail circuits at different bandwidths. Our retail analysis is therefore consistent with the relative prices of wholesale circuits at different bandwidths being a reasonable approximation to their relative prices in a competitive market, as would also be appropriate for the purposes of wholesale market definition

4.16 We believe it is appropriate to reflect the bandwidth breaks identified in retail markets for end to end leased lines in the underlying wholesale TISBO markets. This is because the demand for the latter is a derived demand and is dependent on the demand for the retail service. In general, where demand for an upstream input is derived from the retail level (and provided the upstream input accounts for a sufficiently large proportion of the downstream price), the range of available substitutes at the downstream (retail) level will inform the likely range of substitutes for the upstream (wholesale) service. This is because a rise in the price of the wholesale service which is passed through in the price of one retail service will cause retail customers to switch to substitute retail products, reducing demand for the wholesale input.

4.17 In the case of very high bandwidth 155Mbit/s TISBO, the market definition is unlikely to be broadened by substitution at the wholesale level, in the absence of substitution at the retail level. It would not make sense in a competitive market for a CP to incur the additional costs of high bandwidth (wholesale) access segments if the end-user was not going to use that bandwidth over the life of a contract. Similarly, a low bandwidth TISBO circuit could not be used to deliver a higher bandwidth retail leased line.

Use of BT's wholesale pricing and cost data

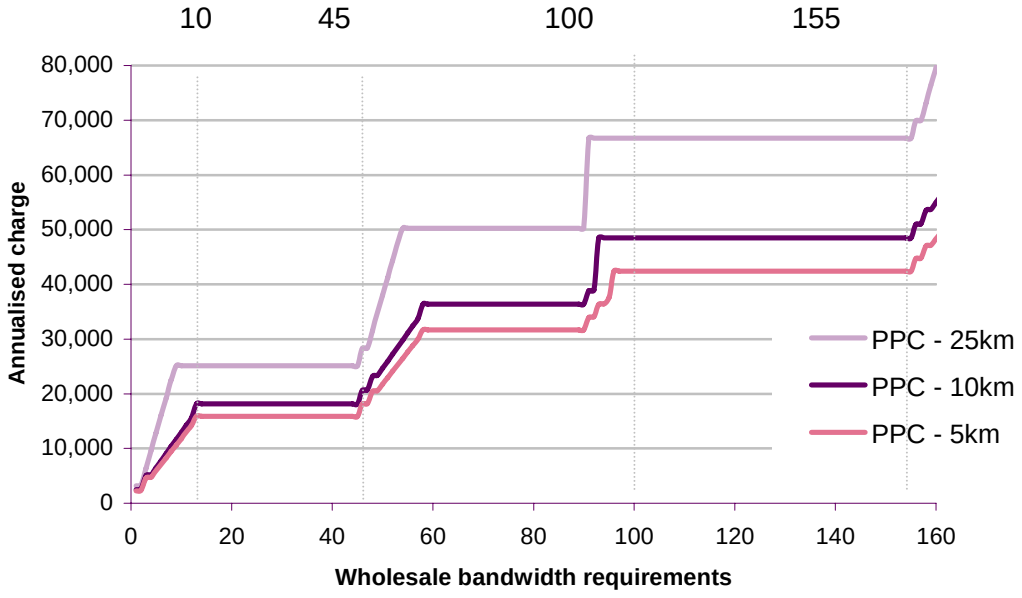
4.18 Our analysis of bandwidth breaks was reliant on BT's wholesale pricing data. Some CPs were concerned that BT's wholesale prices did not provide an appropriate competitive benchmark from which to conduct an Hypothetical Monopolist Test. This is because, even though PPCs are subject to regulation, some charges appeared to be above cost and hence the competitive level.

4.19 Given this concern, we have compared BT's underlying costs to its wholesale prices to ensure that the differences in the profitability of the different services do not affect our market definition. In general, we are satisfied that this is the case, although as BT is not required to compile data for 622 TISBO (as this is a non-SMP market), we have not performed this analysis for 622 Mbit/s circuits. However, the difference in competitive conditions between 155 Mbit/s and 622 Mbit/s circuits supports the view that it is appropriate to regard these as supplied in separate markets.

Review of wholesale product market definition

4.20 We have carried out additional analysis to confirm that the close association between retail bandwidth demand and the choice of wholesale bandwidths for TISBO services holds (i.e. that retail breaks map closely onto wholesale breaks). In particular, we have updated the retail analysis presented in the January 2008 consultation[20]. We looked at the theoretical combination of circuits that would provide the cheapest way of delivering a particular bandwidth requirement. Figure 4.1 updates this retail analysis by considering only TISBO segments (i.e. we have excluded any trunk costs).

Figure 4.1: Comparison of Wholesale input prices



Source: Ofcom, June 2008

4.21 The figure shows for different distance circuits (from 5km to 25km) the service based price (rental plus annualised connection charge) of providing a particular bandwidth

[20] page 83 figure 15.

requirements. For example, for a communication provider requiring bandwidth of 45 Mbit/s and below, it would generally be economic to use 34/45 Mbit/s circuits rather than multiple 2Mbit/s.

4.22 The updated analysis confirms the existence of a bandwidth break between 34/45 and 155 Mbit/s TISBO. This is because there are quite clear “steps” between the different bandwidths. These indicate that the range of customer bandwidth requirements over which a customer might switch between circuits of different bandwidths in response to a SSNIP is relatively limited. The figure suggests that it would generally be most efficient to seek to use a 155 Mbit/s circuit to serve bandwidth demand above 100 Mbit/s. Similarly, 34/45 (or multiples thereof) is only efficient just below 100 Mbit/s.

4.23 The above analysis therefore suggests that the break that we identified based on retail price analysis also exists in the market between 34/45 and 155 Mbit/s. This result is not unexpected as the above analysis excludes trunk costs, which are less variant by bandwidth.

4.24 We were not able to compare the price of 155 Mbit/s versus 622 Mbit/s in the above figure. This is because BT does not publish wholesale prices for 622 Mbit/s circuits. But as a general result it appears that retail market definitions map quite well onto our wholesale definitions.

Analysis of variations in competitive conditions

4.25 Even if there was a break in the chain of substitution, we could regard 155 and 622 Mbit/s TISBO as being part of the same market if the competitive conditions of the two services were sufficiently homogeneous. However, some CPs were concerned that our wholesale market definitions did not account for potential differences that might exist in competitive conditions at the retail and wholesale level.

4.26 Two respondents argued that demand for multiple 155 Mbit/s circuits might be more prevalent for wholesale services and data centres than for individual retail customer sites. In their view, this would tend to make the results of our bandwidth break analysis less clear. At the wholesale level, they suggested that Ofcom should consider whether there were variations in competitive conditions by geography for 155 Mbit/s circuits. They argued that they would be less able to provide circuits incrementally in many parts of the country but might be in a better position to self-supply in major urban areas.

4.27 As noted above, the evidence suggests that competitive conditions in the supply of 155 Mbit/s (at least outside the CELA) and 622 Mbit/s lines differ significantly. One reason for this difference is that the revenue available from even a single 622 Mbit/s makes it more likely that it will be economic for a competing operator to supply a 622 Mbit/s circuit than a 155 Mbit/s circuit. The deterrent effect of sunk costs on potential entry is likely to be more significant in the latter market.

4.28 This is reflected in the further evidence that OCPs have provided on their limited ability to provide 155 Mbit/s circuits and the extent of self supply on 622 Mbit/s circuits, and in market shares at the wholesale level. BT appears to have around 7% of 622 Mbit/s TISBO sales, but around 56% of 155 Mbit/s TISBO in the UK excluding the Hull area and the CELA. This result does not seem to be explained by ‘small number’ issues because significant quantities of both lines are supplied.

Conclusions

4.29 We propose to apply the same bandwidth breaks at the wholesale and retail level. These are different to the definitions proposed in the January 2008 consultation because new evidence suggests that substitution possibilities between 155Mbit/s and 622 Mbit/s TISBO are limited and because we have found competitive conditions to be far less homogeneous for circuits above 34/45 Mbit/s than the available evidence at the time of our January 2008 consultation suggested.

4.30 Although the evidence of competitive conditions suggests that the 155 Mbit/s services might face broadly similar competitive conditions to 34/45 Mbit/s the inclusion of 155 Mbit/s in the same market as 34/45 Mbit/s circuits is not supported by our price and cost analysis. We therefore propose to define a separate market for very high bandwidth TISBO at 155 Mbit/s, a separate market for very high bandwidth TISBO at 622 Mbit/s and to leave unchanged the definition of the wholesale high bandwidth TISBO market proposed in the January 2008 consultation. Table 4.2 sets out our revised proposals.

Table 4.2: Revised wholesale product market definitions

Wholesale product markets	**Bandwidth breaks**			
Traditional interface symmetric broadband origination (TISBO)	**Low** Up to and including 8Mbit/s	**High** Above 8Mbit/s up to and including 45Mbit/s	**Very high - 155** Above 45 Mbit/s up to and including 155 Mbit/s	**Very high – 622** Above 155 Mbit/s

Question 2: Do respondents agree with our proposal to identify separate markets for very high bandwidth TISBO at speeds above 45 Mbit/s and up to and including 155 Mbit/s ("TISBO 155 Mbit/s"); and wholesale very high bandwidth TISBO at speeds above 155 Mbit/s ("622 Mbit/s TISBO")?

Geographic market definition

Introduction

4.31 In the January consultation document, we asked the following questions in relation to our wholesale geographic market definition proposals:

> Question 6: Do stakeholders agree with our proposed wholesale geographic market definitions? In particular, do you agree with Ofcom that a separate market now exists in the UK for high bandwidth TISBOs in the Central and East London Area (CELA)?

4.32 A number of the respondents raised issues which are directly relevant to our consideration of geographic market definition for the revised very high bandwidth 155 Mbit/s TISBO and very high bandwidth 622 Mbit/s TISBO product markets. We summarise and address each of these below. Respondents to the January 2008

consultation also made comments with regards to other aspects of our geographic analysis. We will address those comments in our final statement, which we intend to publish in September this year.

4.33 Having proposed to revise our proposed product market definitions for 155 Mbit/s and 622 Mbit/s traditional interface services we now define the geographic scope of these two product markets. Our analytical framework for defining the geographic scope of the relevant wholesale markets was explained in detail in Section 6 of the January 2008 consultation document. This explained that there would be a separate geographic market in the Hull area for each of the relevant product markets (excluding trunk). For the rest of the UK, Section 6 explained why, for leased lines markets, an analysis of demand-side and supply-side substitution will generally lead to the definition of very narrow geographic markets and thus is not relevant to assessing the geographic market definition. In this light, Ofcom's analytical framework for the UK (excluding the Hull area) focussed on the presence of common pricing constraints and geographic variations in competitive conditions.

4.34 Our assessment of geographic market definition for the revised wholesale product markets in the UK considers the same factors as in the January 2008 consultation.

Approach to geographic market definition

4.35 Our geographic analysis of these product markets adopts the same analytical framework used for the other relevant wholesale product markets and explained in the January 2008 consultation. There are three main elements to our consideration of geographic markets at the wholesale level:

- wholesale service shares;
- the impact of alternative infrastructure; and
- BT's pricing policies.

Wholesale service shares

4.36 An analysis of wholesale service shares can be useful in informing whether there are geographic variations in competitive conditions. To the extent that variations in service share exist on a geographic basis this may indicate that separate local geographic markets exist. However, consistent with the approach in our Disaggregated Markets discussion document[21], while this can be useful for informing whether separate local markets exist or not, we need to be careful not to place too much weight on such analysis for defining the precise boundary of the market. To do otherwise would risk circularity in the analysis, with the current market outcome determining the market boundary.

4.37 It should be noted that service shares are not market shares, but the proportion of leased lines services in the relevant product market provided by operators in each postal sector. Once the precise boundary of the relevant geographic market has been defined we can then calculate operators' market shares across the whole market as part of the assessment of market power within the relevant markets.

[21] http://www.ofcom.org.uk/consult/condocs/disagg/

The impact of alternative infrastructure

4.38 Competition from OCPs which have built their own networks has the potential to constrain pricing in those geographic areas where such network build has occurred. However, this raises the question of how such constraints transmit (if at all) to geographic areas where an operator has not built its network since leased lines have an inherent geographic element as they are involved with connecting distinct geographic areas. It is also important to bear in mind that in defining the scope of the market, we need to do this assuming an absence of regulation at the level of the market being considered, otherwise we risk building circularity into our market definitions. Thus we have to assume that there is no wholesale leased line regulation in place.

4.39 In paragraphs 6.16 to 6.21 of the January 2008 consultation we developed a number of scenarios to explore how the assumption of an absence of wholesale leased line regulation might affect the wholesale geographic market definitions. This thought experiment exposed why barriers to interconnection could affect the market definition outcome. It also revealed that the importance of barriers to interconnection reduced the greater the network reach of OCPs. We therefore considered that analysis of the reach individual OCP's networks within apparently more competitive geographic areas is useful to inform the geographic market definition question. We have borne this in mind in considering the geographic scope of the revised products markets below.

BT's pricing policies

4.40 As noted above, the existence of common pricing constraints can inform the definition of the geographic boundary, even where there is a lack of demand-side and supply-side substitution. For leased lines in the UK, most OCPs price on a bespoke basis so it is not possible to observe if a common pricing constraint exists. However, in markets where BT is not subject to an obligation to maintain a uniform national price but is required to publish its prices, including any geographic variations in these prices, BT's pricing policy can provide some information on the area covered by a common pricing constraint.

4.41 In the provision of wholesale leased lines, BT has either one or two geographic prices. Where BT prices differentially, it has a lower price within the CLZ.

Summary of the January 2008 proposals

4.42 In the January 2008 consultation, our wholesale geographic analysis had four main elements:

- an analysis of wholesale service shares on a postal sector basis, using wholesale circuit information provided by operators;
- an analysis of network reach based on the number of alternative operators' networks within an economic build distance of each UK business site belonging to a business with over 250 employees, averaged by postal sector;
- consideration of BT's pricing policies, which can inform the extent to which there exists a common pricing constraint across geographic areas; and
- consideration of evidence on the degree of network interconnection between alternative network operators' networks.

4.43 In the January 2008 consultation we considered that the geographic extent of the very high bandwidth TISBO market was the UK (excluding the Hull area) and the Hull area.

Responses to the January 2008 consultation and Ofcom's response

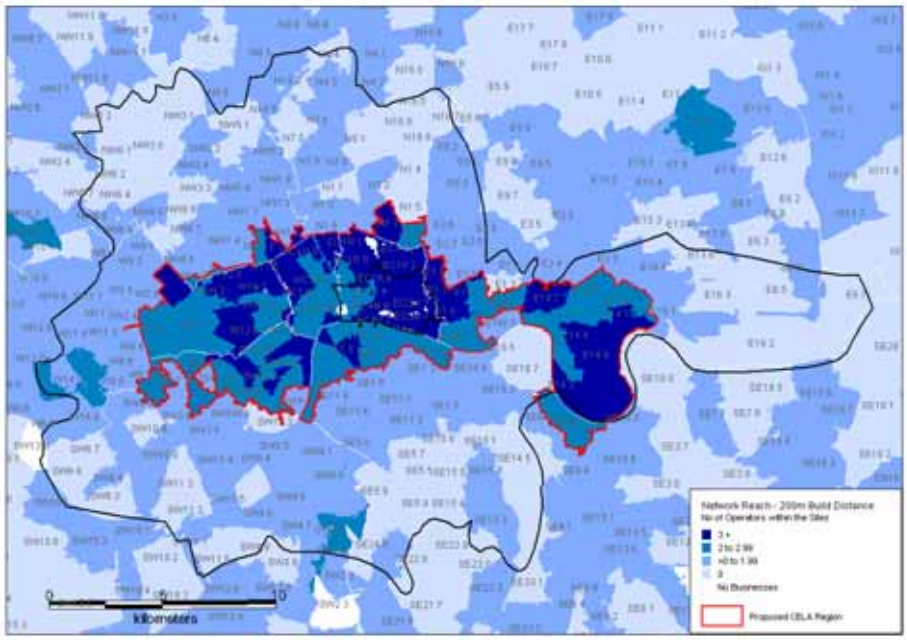
4.44 Many respondents have commented on our proposed wholesale geographic market definition. We present below the key issues raised by respondents, and provide our view. We then review the appropriate geographic market definition and set out our proposals.

250m build distance is too long

4.45 Some respondents argued that our use of a 250m radial distance build distance is an order of magnitude too high. They made a number of points in order to support their view. This included arguing that we have not included all relevant costs in arriving at our economic build assumption and other factors such as the actual builds not being straight line builds, the contract length and the time involved in providing a circuit. These respondents question why Ofcom had used a relatively high build distance assumption of 250m despite responses to its Disaggregated Markets consultation document published in 2006 which suggested that the economic build distance is much shorter. One also cautioned against Ofcom using a long build distance because of practical difficulties of using a shorter distance. One of these respondents suggested that digging even 40m from a flex-point to a customer would be exceptional.

4.46 In light of the comments and additional evidence we received on the economic build distance used in our geographic analysis we have revisited the question of what an appropriate build distance assumption would be. This additional analysis is set out in Annex 6. In light of this additional analysis we consider that a more appropriate build distance to use in our geographic analysis is 200m as opposed to 250m. This has the effect of changing the precise boundary of the Central and East London Area (CELA) market in those product markets where we conclude that local geographic markets exist. The revised boundary of the CELA market is shown in Figure 4.2 below, with the boundary of the market shown in red. The black boundary signifies the boundary of the CLZ, which is defined as the geographic area served by the 020 7 dialling code.

Figure 4.2: Boundaries of the CELA market



Pricing to inform market definition

4.47 BT argued (as it did on retail geographic market definition) that Ofcom is wrong to consider BT's pricing policies when defining geographic markets, citing a number of reasons why it has maintained national prices. These include that in the context of setting up Openreach it is not surprising that it has chosen to maintain a relatively simple pricing structure, the introduction of sub-national prices could have undermined trust with customers and further understanding of its costs on a geographic basis is required before it introduces local prices. BT went on to state that it expected to introduce different pricing structures in the near term, which might include local geographic prices.

4.48 We disagree with BT that we are wrong to consider its pricing policies when defining the scope of geographic markets. An operator's pricing can indicate the extent to which it considers conditions of competition are consistent across products or geographic areas. In addition, where national prices are set this can have the effect of transmitting competitive constraints in one geographic area to another geographic area – a common pricing constraint. Ofcom's approach is also consistent with that of the European Commission. As noted above in our discussion of retail geographic market definition, the European Commission recently commented[22] on the Austrian NRA's (TKK[23]) decision to define a national geographic market in the provision of wholesale broadband access where this decision was notwithstanding the comparatively stronger competitive dynamic in certain more densely populated areas identified by TKK. The European Commission considered that the evidence of Telecom Austria setting a nationally averaged price as being relevant to TKK's decision to define the market as national.

22

http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/sterreich/registeredsnotifications/at20080757/at-2008-0757_enpdf/_EN_1.0_&a=d

23 TKK (Telekom-Control-Kommission).

4.49 While we recognise that there may be reasons why BT has continued to maintain a national price for a number of its services we continue to consider that the fact that it does is indicative of there being a national market. That said, it would not necessarily follow that if BT were to set local prices that the geographic market would then be found to be local in scope. Nor does it necessarily follow that where BT sets a national price that the market is necessary national in scope.

Local markets for very high bandwidth TISBO services

4.50 One respondent disagreed with Ofcom's finding of a national market for the very high bandwidth TISBO market. This respondent cited lower retail prices from BT in the CELA as indicating differences in competitive conditions in support of its view. It pointed to the existence of less competition in other areas of the UK as supporting a finding of local geographic markets. In relation to the very high bandwidth market, this respondent also argued that if local geographic markets cannot be identified then Ofcom should be conservative about withdrawing regulation from this market as the withdrawal of regulation could lead to significant market failures in certain geographic areas. This point was supported by another respondent which argued that local markets are more likely in higher bandwidth markets and as such, 155 Mbit/s TISBO services should be found to be in separate geographic markets, as there was negligible competition in certain geographic areas in the provision of these services while there was strong competition in other geographic areas.

4.51 We are consulting in this document on whether there are separate product markets for very high bandwidth 155 Mbit/s TISBO services and very high bandwidth 622 Mbit/s and above TISBO services. It is therefore also appropriate for us to consult on the geographic scope of these two new revised product markets.

Geographic analysis of the wholesale very high bandwidth 155 Mbit/s TISBO market

4.52 We set out below the results of our analysis for the very high bandwidth 155 Mbit/s TISBO market, using the methodology discussed in the preceding paragraphs. We have also taken into account our consideration of the relevant responses to the January 2008 consultation.

Wholesale service shares

4.53 Figure 4.3 sets out BT's service share by postal sector in the very high bandwidth 155 Mbit/s TISBO market for the UK as a whole, with Figure 4.4 showing the CLZ and Figure 4.5 the City of London, with the boundary of each of these areas identified by the black boundary line.

Figure 4.3: BT's service share in the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK[24]

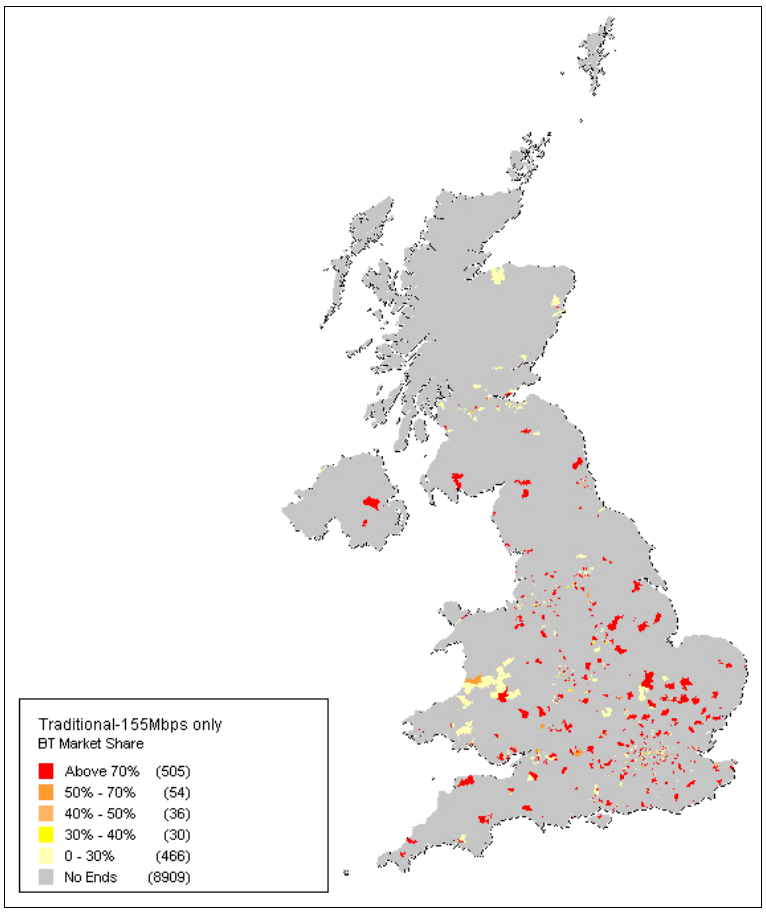
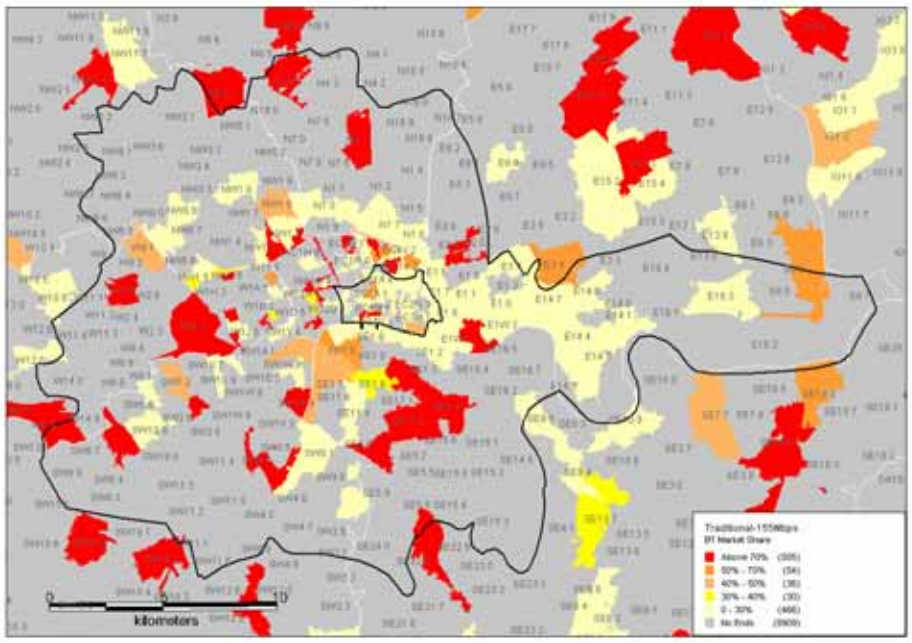
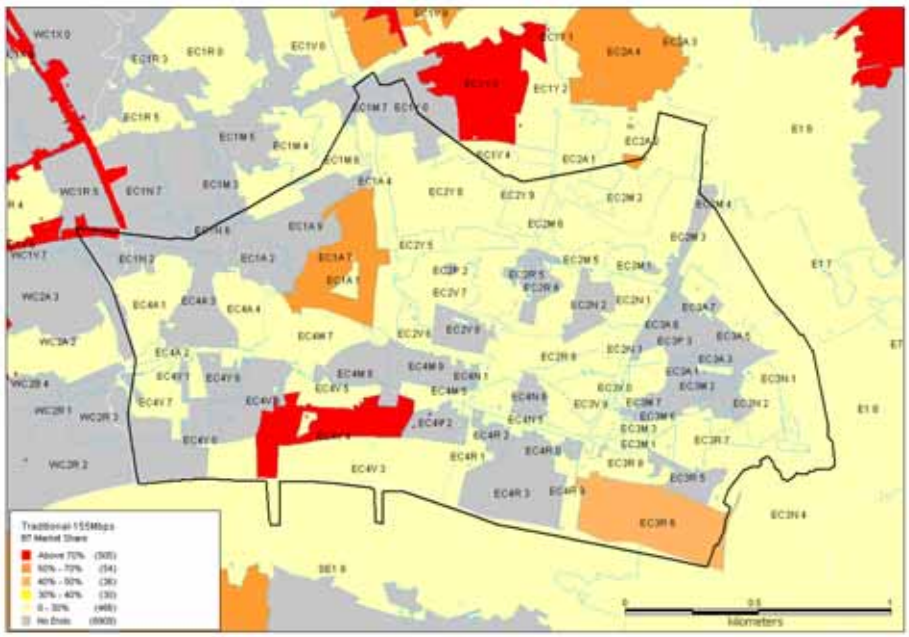


Figure 4.4: BT's service share in the wholesale very high bandwidth 155 Mbit/s TISBO market in the CLZ



[24] The legends on Figure 4.3 to 4.5 and 4.8 to 4.10 referring to "BT market share" should be read as "BT service share".

Figure 4.5: BT's service share in the wholesale very high bandwidth 155 Mbit/s TISBO market in the City of London

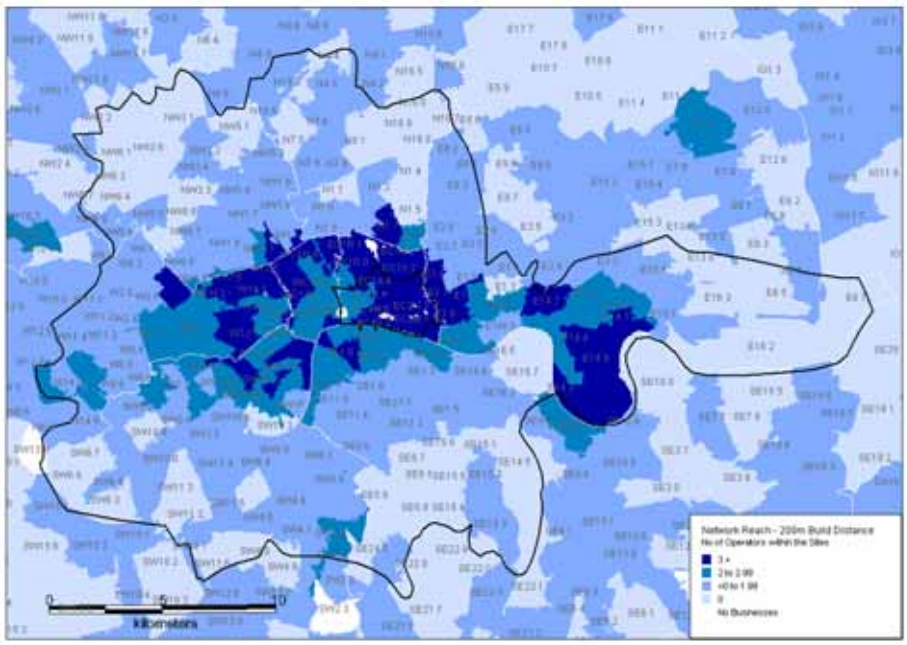


4.54 The service share analysis shows that there are postal sectors where BT has a relatively high service share and others where it is relatively low. This could suggest that there are geographic variations in competitive conditions in this market.

Operators' network reach

4.55 Our approach to network reach is set out in detail in Annex 6 where we address comments received in response to the January 2008 consultation that our assumption with regard to economic build distance was too long. As set out there and above, in light of these comments we consider it appropriate to adjust our build distance assumption, reducing it from 250m to 200m. The result of our network reach analysis in the CLZ is shown in Figure 4.6. The darkest blue is those postal sectors where the average number of alternative operators (i.e. excluding BT) per business site in the postal sector is three or more. The next darkest blue is those postal sectors where the average number of alternative operator is between two and three and so on.

Figure 4.6: Number of alternative operators in each postal sector assuming 200m build distance: CLZ



4.56 We show the results of this analysis in the rest of the UK in Annex 6. That analysis shows that outside of the London area there are a very limited number of postal sectors where there might be different competitive conditions. It is also the case that in these postal sectors there is more limited demand for 155 Mbit/s services compared to the demand in the London area, where the CLZ constitutes around a third of the whole market. As explained in Annex 6 and above, while there is some evidence of local variations in competitive conditions in other parts of the UK, it is our view that, when the available evidence is considered in the round, a conclusion of local geographic markets in other areas cannot be robustly justified. The weight of evidence more strongly suggests that these other geographic areas are part of a broader geographic market including the rest of the UK (excluding the CELA and the Hull area). Ofcom's analysis of evidence in relation to other areas of the UK is set out in paragraphs A6.21 onwards. However, we will revisit this question in future market reviews and make appropriate decisions at such a time as to whether there is more robust evidence which would support the finding of local markets in additional areas of the UK.

4.57 Our network reach analysis shows that in the London area, OCP's network build is concentrated in a sub-part of the CLZ, including the City of London on the basis of a 200m build distance. In particular there is a contiguous group of postal sectors which includes central and east London in which the average number of operators (in addition to BT) that can serve a business site in each postal sector is two or greater. This may be indicative of there being a number of postal sectors where there could be expected to be a greater constraint on pricing, compared to other geographic areas.

BT's pricing policies

4.58 BT currently prices its wholesale 155 Mbit/s TISBO services on a nationally averaged basis. This could indicate that the extent to which there are geographic variations in competitive conditions, the effect of the competitive constraints in more competitive areas will be transmitted to other geographic areas through this common pricing

constraint. However, it is the case, as discussed in our consideration of retail geographic market definition above, that BT does price 155 Mbit/s traditional interface retail services at a discount in metropolitan areas, including the CLZ. This may indicate that there is some variation in competitive conditions in the provision of these services.

Interim conclusion on geographic market definition in the wholesale very high bandwidth 155 Mbit/s TISBO market

4.59 The available wholesale service share information indicates that there are significant geographic variations in competitive conditions in the wholesale very high bandwidth 155 Mbit/s TISBO market. In addition, the network reach analysis which we have conducted shows that alternative operators have, as would be expected, focussed much of their network roll-out in the geographic areas where business customers are located, in particular in the London area. Our analysis of service shares indicates that in this case this infrastructure is being used to compete in the provision of wholesale very high bandwidth 155 Mbit/s TISBO circuits. However, weighing against this is BT continuing to price all of its 155 Mbit/s circuits on a nationally averaged basis, despite evidence that there are significant geographic variations in competitive conditions. However, as noted BT does set geographically de-averaged prices for 155 Mbit/s traditional interface retail services, which might further support a conclusion of significant geographic variations in competitive conditions.

4.60 On the basis of the available evidence, together with the responses which we received to the January consultation document, we consider that for the wholesale very high bandwidth 155 Mbit/s TISBO market there exist separate local geographic markets, with a separate market in the London area and in the rest of the UK (excluding the Hull area). However, having concluded that this is the case we now need to determine what the precise geographic boundary of the market is. In doing this we have in principle followed the same methodology set out in the January 2008 consultation for the high bandwidth TISBO market, for which we also identified local geographic markets, with a separate local market in the London area.

Defining the precise geographic boundary

4.61 Having determined that there exist local (i.e. sub-national) geographic markets in the wholesale very high bandwidth 155 Mbit/s TISBO market, we need to define the precise geographic market boundary. In doing this, we consider that it is important to bear in mind that in conducting the geographic market definition that we are seeking to identify areas of sufficiently homogeneous competitive conditions to include them in the same economic market and that market definition is a means to an end, the end of which is to identify whether ex-ante regulation is required or not. We consider that network reach analysis provides a solid basis for identifying the boundary of the geographic market because it indicates the area within which businesses have an effective choice of supplier. This approach is consistent with our approach in the January 2008 consultation as well as in our recent review of wholesale broadband access markets.

4.62 The question then is how to group postal sectors in the London area in order to identify a separate market within which there is greater competitive pressure than in other postal sectors. From the information that we have obtained from OCPs, we have identified that there are 16 alternative operators which have some network presence in the CLZ. On the other hand there also exist in the CLZ postal sectors where BT is the only operator present.

Presence of alternative networks

4.63 We consider that in the context of the provision of wholesale very high bandwidth 155 Mbit/s TISBO services it is the case that where there are postal sectors where BT and one other operator are present (i.e. up to one OCP) then these postal sectors have different competitive conditions from postal sectors where there are two or more OCPs (i.e. three CPs including BT) able to provide services. Further, we consider that competitive conditions in those postal sectors where there are two and more OCPs able to provide services in a postal sector are likely to be sufficiently homogeneous to include all of these postal sectors in the same geographic market. This is because, given the cost structures in this market and the fact that we take account of other indicators of competitiveness such as service shares, any increase in competitive pressure, not captured in these other indicators, from the addition of an operator beyond three (including BT) is unlikely to be sufficient to warrant the identification of an additional geographic market boundary. Therefore, we consider that further geographic market delineation is unnecessary.

4.64 Our proposal is therefore to define the boundary of the local geographic market in the London area on the basis of the number of CPs able to provide services in a postal sector on the basis of our 200m network build assumption. Postal sectors where 2 or more OCPs (3 CPs in total including BT) are able to provide a service is defined to be in a separate geographic market from those postal sectors where there is one OCP or none (2 or fewer CPs in total including BT) able to provide a service.

4.65 As noted, this proposal is consistent with our approach in the January 2008 consultation and in our recent statement on wholesale broadband access markets, published on 21 May 2008. The definition of geographic market boundaries there was also based to a large extent on the number of competing operators able to provide a constraint. However, there are differences in the precise indicators used which reflect differences in the nature of competition in the two markets. Competition in WBA is based largely on use of unbundled exchange lines purchased on regulated terms from BT, rather than infrastructure build as in TISBO. The resulting difference in cost structures, in particular in the marginal cost of addressing additional customers, means that some difference in the weight attached to different indicators of competitiveness is appropriate.

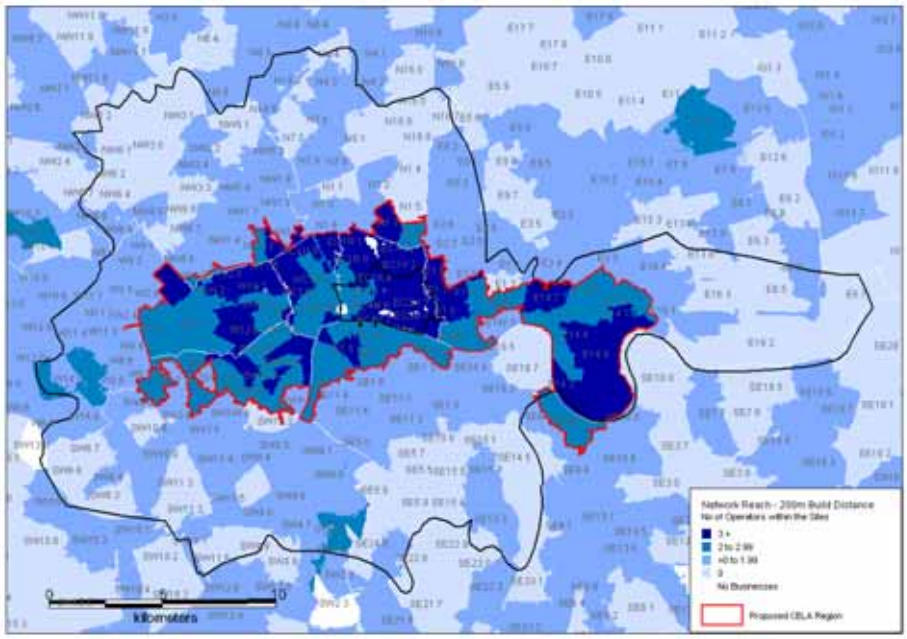
Contiguity

4.66 A further issue which we need to consider when defining the boundary of the local geographic market is whether or not contiguity is important. In the January 2008 consultation we considered that in the context of leased lines markets contiguous geographic markets are more important than perhaps in some other telecommunications markets where geographic variations in competitive conditions exist e.g. wholesale broadband access. This is because leased lines networks tend to be built incrementally, which is not necessarily the case in broadband where an LLU operator will enter an individual exchange based primarily on the costs of entering that exchange and its potential customer base from that exchange. Moreover, in leased lines, for an OCP to impose a constraint in the high bandwidth TISBO market, it will have to be present (or have access to network) at the customer end all the way to either the boundary of the geographic market, the point of interconnect with another OCP, or the other end of the leased line. On this basis we consider it appropriate for the postal sectors which constitute a separate geographic market in the wholesale very high bandwidth 155 Mbit/s TISBO product market to be contiguous with other postal sectors in that geographic market.

Proposal for geographic market definition in the wholesale very high bandwidth 155 Mbit/s TISBO market

4.67 On the basis of the evidence reviewed, we propose to define a separate local geographic market in the wholesale very high bandwidth 155Mbit/s TISBO market in the London area. The boundary of our proposed local geographic market are those contiguous postal sectors where there are two or more OCPs able to provide services on the basis of our revised 200m network build assumption. The boundary of this market is identified by the red boundary line in Figure 4.7 below. A list of the postal sectors which constitute this separate local market are included in Annex 7. We consider that the rest of the UK (excluding the Hull area and CELA) constitutes a single separate geographic market.

Figure 4.7: Revised boundaries of the CELA market



4.68 Comparing the proposed geographic boundary with the output of our service share analysis in Figure 4.4 above shows that there is a high correlation between the postal sectors where BT's service share is relatively low and postal sectors where OCPs are present. This suggests that the proposed geographic market boundary is appropriate for the wholesale very high bandwidth 155 Mbit/s TISBO product market.

Other evidence of local geographic markets in the 155Mbit/s TISBO market

4.69 We identified two other sources of evidence which may indicate that there are local geographic markets in the wholesale very high bandwidth TISBO market, with these being:

- the existence or otherwise of barriers to interconnection; and
- the extent of individual OCPs' coverage of the proposed local geographic markets.

4.70 The conclusions of our analysis in the January 2008 consultation still stand. The evidence of a significant level of interconnection between OCPs in the wholesale high bandwidth TISBO market is not limited to the high bandwidth market but would

also apply to the wholesale very high bandwidth 155Mbit/s TISBO market. This suggests that any technical and commercial barriers to interconnection are limited. It remains the case that there are operators which have a significant coverage, both by postal sector and business site of the proposed CELA market. Both these factors indicate that an operator which is present in the CELA will be able to compete to supply high and very high bandwidth TISBO essentially throughout the area, a conclusion further supported by the service share analysis.

Conclusion on geographic market definition in the wholesale very high bandwidth 155Mbit/s TISBO market

4.71 Our conclusion, for the reasons set out above, is that there are separate local geographic markets in the UK (excluding the Hull area) for wholesale very high bandwidth 155 Mbit/s TISBO services. These separate markets are the CELA and the rest of the UK excluding the Hull area and the CELA. A list of the postal sectors which constitute the CELA market are included in Annex 7.

4.72 We also conclude that there is a separate geographic market in the Hull area for wholesale very high bandwidth 155 Mbit/s TISBO services for the same reasons as we have concluded separate geographic markets in the Hull area for the other relevant product markets. These are that there is a separate network in the Hull area and that there are different constraints present in the Hull area compared to the rest of the UK. This on the basis that KCOM is by some distance the largest CP, with a much larger network reach than other CPs throughout the Hull area. It is also the case that KCOM prices on a geographically uniform basis throughout the Hull area, which provides further support to a finding of the Hull area as a separate local geographic market in the provision of these services.

Question 3: Do you agree with our proposed wholesale geographic market definition for the wholesale very high bandwidth 155 Mbit/s TISBO market? In particular, do you agree with Ofcom that a separate geographic market exists in the UK for wholesale very high bandwidth 155 Mbit/s TISBO services in the Central and East London Area (CELA)?

Geographic analysis of the wholesale very high bandwidth 622 Mbit/s TISBO market

4.73 We set out below the results of our analysis for the wholesale very high bandwidth 622 Mbit/s TISBO market, using the methodology discussed in the preceding paragraphs. We have also taken into account our consideration of the relevant responses to the January 2008 consultation.

Wholesale service shares

4.74 Figure 4.8 sets out BT's service share by postal sector in the wholesale very high bandwidth 622 Mbit/s TISBO market for the UK as a whole, with Figure 4.9 showing the CLZ and Figure 4.10 the City of London, with the boundary of each of these areas identified by the black boundary line.

Figure 4.8: BT's service share in the wholesale very high bandwidth 622 Mbit/s TISBO market in the UK

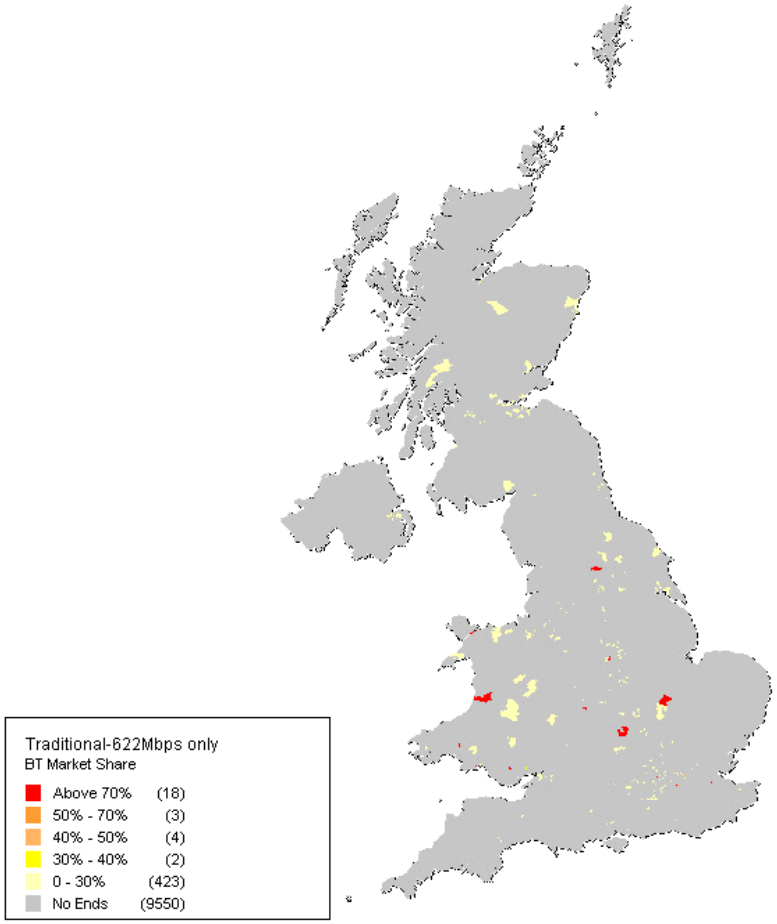


Figure 4.9: BT's service share in the wholesale very high bandwidth 622 Mbit/s TISBO market in the CLZ

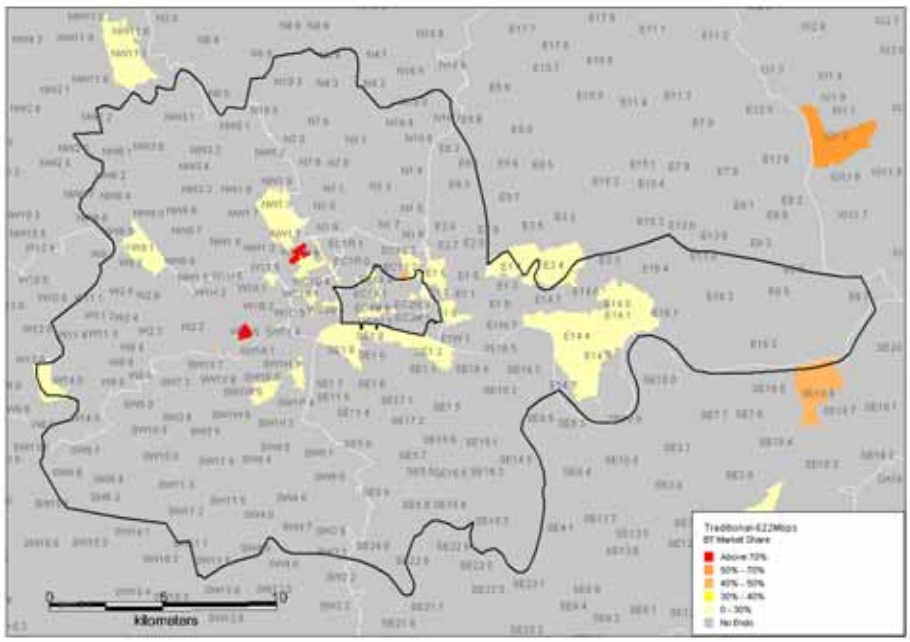
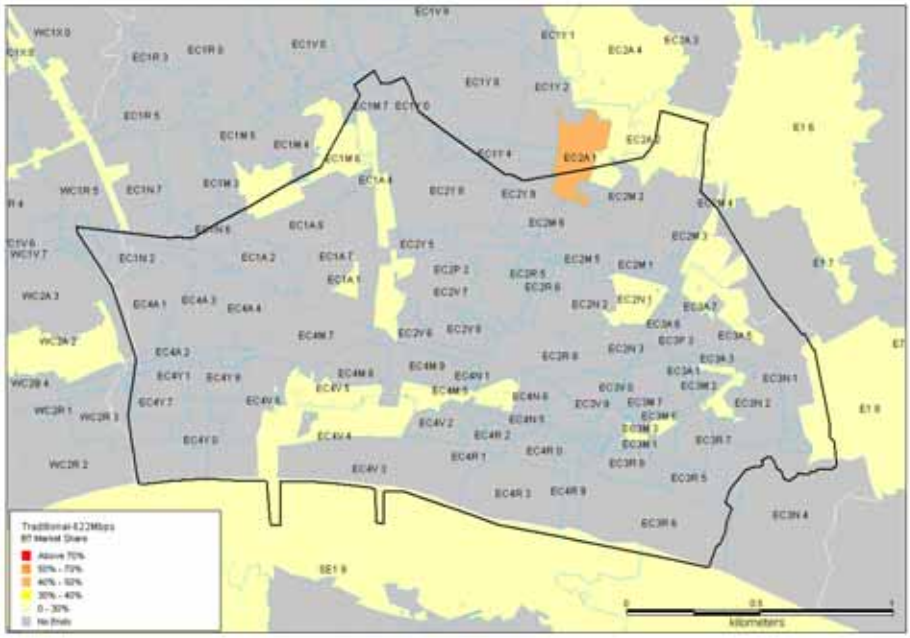


Figure 4.10: BT's service share in the wholesale very high bandwidth 622 Mbit/s TISBO market in the City of London



4.75 The service share analysis shows that wholesale very high bandwidth 622 Mbit/s and above TISBO circuits are currently provided a relatively small proportion of postal sectors (less than 10%). While there is seemingly some variation in BT's service share by postal sector, this is in part a function of the limited absolute number of circuits being provided, meaning that service shares in postal sectors can be volatile when individual contracts change operator. This suggests that it would be difficult to identify a grouping of postal sectors in which competitive conditions are such as to enable a distinct local market for wholesale very high bandwidth 622 Mbit/s and above TISBO to be identified. Local service shares, in particular, may be misleading.

Operators' network reach

4.76 The conclusions of the network reach analysis are – for a given build distance - the same regardless of the bandwidth of the circuits being provided as circuits of different bandwidth can be provided from the same network points. Therefore, the output of our network reach analysis for this market is the same as in our discussion of network reach in the wholesale very high bandwidth 155 Mbit/s TISBO market as set out above.

BT's pricing policies

4.77 BT is currently under no obligation to publish its prices for its wholesale 622 Mbit/s services. As such we do not have any information on what its prices are. However, it might be expected that BT would price these services on a bespoke basis according to the particular customer and perhaps relating its price to other services which are being purchased.

Conclusion on geographic market definition in the wholesale very high bandwidth 622 Mbit/s TISBO market

4.78 We consider that there is very little evidence to suggest that the geographic market of the wholesale very high bandwidth 622 Mbit/s and above TISBO market is local in

scope. These circuits are high value which means that there is much more scope for OCPs to be able to self-supply these circuits in areas where demand may emerge, indicating that the competitive conditions may be relatively homogeneous across the whole of the UK (excluding the Hull area). This would indicate that the market is national in scope.

4.79 We note that this conclusion is consistent with the position we reached in the 2003/04 Review where we defined a separate product market for TISBO services of 622 Mbit/s and above which was national in scope. We also note that respondents to the January 2008 consultation did not question our conclusion on geographic market definition with regard to 622 Mbit/s and above TISBO services.

4.80 In concluding that the market is national in scope we recognise that it may be the case that competition conditions for these services may develop such that significant demand for these higher bandwidth services will emerge in areas where OCPs will be unable to provide a competitive constraint. However, we consider that for the period of this market review such developments are unlikely because applications that command such high bandwidth TISBO inputs tend to be concentrated in urban areas. Moreover, to the extent that a potentially competitive geographic area may emerge during the period of the market review, it is not currently clear, given the information available to Ofcom, where a market boundary may emerge. As such we consider that there is a risk to the emerging development of competition if we were to prematurely identify local geographic markets.

4.81 In the Hull area we also consider that while there are currently no circuits of bandwidths above 155 Mbit/s currently sold, it is also the case here that there is scope for OCPs to be able to self-supply these circuits if demand were to emerge. Therefore, we continue to consider that there is a separate market for the provision of wholesale very high bandwidth 622 Mbit/s and above TISBO services in the Hull area.

Question 4: Do you agree with our proposed wholesale geographic market definition for the wholesale very high bandwidth 622 Mbit/s TISBO market?

Section 5

Market Power Assessment

Introduction

5.1 This section sets out our assessment of whether any operator or operators have significant market power ("SMP"), either individually or jointly with others, in the markets for wholesale very high bandwidth TISBO in the UK as identified in Section 4.

5.2 In summary, our assessment is as follows. We propose that:

- BT has SMP in the market for very high bandwidth 155 Mbit/s TISBO in the UK excluding the CELA and the Hull area (see paragraph 5.22 to 5.52 below);
- No operator has SMP in the market for very high bandwidth 155 Mbit/s TISBO in the CELA (see paragraph 5.53 to 5.75 below);
- KCOM has SMP in the market for very high bandwidth 155 Mbit/s TISBO in the Hull area (see paragraph 5.98 to 5.101 below);
- No operator has SMP in the market for very high bandwidth 622 Mbit/s TISBO in the UK excluding the Hull area (see paragraph 5.76 to 5.97 below); and
- No operator has SMP in the market for very high bandwidth 622 Mbit/s TISBO in the Hull area (see paragraph 5.102 to 5.105 below).

5.3 Below we set out the legal background to SMP determination and the methodology that Ofcom has followed in the assessment of SMP. We then consider each of the markets in turn. We seek views on our assessment on SMP in these markets.

Market power determinations

5.4 Section 45 of the Act details the various conditions that may be set under the European regulatory framework. Section 46 details who those conditions may be imposed upon. In relation to SMP services conditions, Section 46(7) provides that they may be imposed on a particular person who is a Communications Provider or a person who makes associated facilities available and who has been determined to have SMP in a "services market" (i.e. a specific market for electronic communications networks, electronic communications services or associated facilities). Accordingly, having identified the relevant markets, Ofcom is required to analyse each market in order to assess whether any person or persons have SMP as defined in Section 78 of the Act (Article 14 of the Framework Directive).

Definition of SMP

5.5 Under the Directives and Section 78 of the Act, SMP has been defined so that it is equivalent to the competition law concept of dominance. Article 14(2) of the Framework Directive states that:

> "An undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording

> it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers."

5.6 Further, Article 14(3) of the Framework Directive states that:

> "Where an undertaking has significant market power on a specific market, it may also be deemed to have significant market power on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking".

5.7 Therefore, in the relevant market, one or more undertakings may be designated as having SMP (single or collective dominance) where any undertaking, or undertakings, enjoys a position of dominance in that market. Also, an undertaking may be designated as having SMP where it could leverage its market power from a closely related market into the relevant market, thereby strengthening its market power in the relevant market.

5.8 In assessing SMP it is important to conduct the analysis under the assumption that no SMP related regulatory intervention currently or potentially exists in that same market. This is because the outcome of the SMP assessment is to test whether or not any regulatory intervention is required. Therefore, assessing SMP in this market requires consideration of a hypothetical market where SMP regulation (or the threat of SMP regulation) does not exist.

The criteria for assessing SMP

5.9 In assessing whether an undertaking has SMP, Ofcom took the utmost account of the SMP Guidelines as it is required to do when considering whether to make a market power determination under Section 79 of the Act, as well as considering the application of the equivalent Oftel guidelines as set out in Section 3 above.

5.10 Specifically, the SMP Guidelines state that:

> "NRAs will assess whether the competition is effective. A finding that effective competition exists on a relevant market is equivalent to a finding that no operator enjoys a single or joint dominant position on that market."

5.11 The SMP Guidelines go on to state that:

> "NRAs will conduct a forward looking structural evaluation of the relevant market, based on existing market conditions. NRAs should determine whether the market is prospectively competitive, and thus whether any lack of effective competition is durable, by taking into account expected or foreseeable market developments over the course of a reasonable period. The actual period used should reflect the specific characteristics of the market and the expected timing for the next review of the relevant market by the NRA. NRAs should take past data into account in their analysis when such data are relevant to the developments in that market in the foreseeable future."

5.12 In the SMP Guidelines, the Commission discusses market shares as being an indicator of market power:

> "…Market shares are often used as a proxy for market power. Although a high market share alone is not sufficient to establish the possession of significant market power (dominance), it is unlikely that a firm without a significant share of the relevant market would be in a dominant position. Thus, undertakings with market shares of no more than 25% are not likely to enjoy a (single) dominant position on the market concerned. In the Commission's decision making practice, single dominance concerns normally arise in the case of undertakings with market shares of over 40%, although the Commission may in some cases have concerns about dominance even with lower market shares, as dominance may occur without the existence of a large market share. According to established caselaw, very large market shares — in excess of 50% — are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position…"

5.13 However, the Commission also notes that:

> "It is important to stress that the existence of a dominant position cannot be established on the sole basis of large market shares. As mentioned above, the existence of high market shares simply means that the operator concerned might be in a dominant position. Therefore, NRAs should undertake a thorough and overall analysis of the economic characteristics of the relevant market before coming to a conclusion as to the existence of significant market power. In that regard, the following criteria can also be used to measure the power of an undertaking to behave to an appreciable extent independently of its competitors, customers and consumers. These criteria include amongst others:
>
> - Overall size of the undertaking,
> - Control of infrastructure not easily duplicated,
> - Technological advantages or superiority,
> - Absence of or low countervailing buying power,
> - Easy or privileged access to capital markets/financial resources,
> - Product/services diversification (e.g. bundled products or services),
> - Economies of scale,
> - Economies of scope,
> - Vertical integration,
> - A highly developed distribution and sales network,
> - Absence of potential competition,
> - Barriers to expansion.

A dominant position can derive from a combination of the above criteria, which taken separately may not necessarily be determinative."

5.14 The European Regulators' Group ("ERG") has issued a working paper on SMP (the ERG SMP Position) that builds upon the SMP Guidelines. In this paper further criteria are explicitly considered:

- Excessive pricing;
- Ease of market entry;
- Cost and barriers to switching;
- Evidence of previous anti competitive behaviour;
- Active competition on other parameters;
- Existence of standards/conventions;
- Customers' ability to access and use information;
- Price trends and pricing behaviour; and
- International benchmarking.

Methodology

5.15 When assessing whether SMP exists in a particular market, it is appropriate to take account of any existing or proposed regulation of a service *upstream* of the market that is being considered. It is also appropriate to take into account regulatory obligations that exist independently of an SMP finding in the market under consideration, but which impact on the SMP finding in the markets under consideration. The existence of such regulation needs to be considered to capture the competitive constraints in the market under investigation.

5.16 Notwithstanding this, the mere fact that regulation has been put in place or is proposed in an adjacent market does not automatically mean that this regulation is effective in preventing the exercise of SMP in the market in which it has been imposed. This is particularly the case with respect to regulation that is proposed but which has not yet been put in place. Such regulation needs to be fully implemented and there needs to be compliance with this regulation for a reasonable period of time before it can be assumed that it has dealt with upstream bottlenecks that affect competition in downstream markets.

5.17 It is also important to conduct the market analysis against the backdrop of the BT Undertakings provided under Ofcom's Telecommunications Strategic Review ('the Undertakings').[25] The Undertakings were designed to ensure that BT does not discriminate between its own downstream divisions and competitors when offering access services. They require BT to apply Equivalence of Input (EoI) principles to particular access services.

[25] The Final statement of BT's Undertakings, published in September 2006, can be found at: http://www.ofcom.org.uk/static/telecoms_review/final_statement.htm

5.18 In so far as the business connectivity market review is concerned, these Undertakings are principally relevant to Wholesale Ethernet services (i.e. WES/BES), which are to be provided on an EoI basis. BT is required to provide the following services on an EoI basis:

- WES and BES services; and
- Separate access and backhaul services, to make it easier for other CPs to aggregate leased lines and potentially broadband traffic at BT local exchanges. This includes WES Access, WES Backhaul and WEES products.

5.19 With respect to the TISBO market, the Undertakings commit BT to make available new TI Local Access and Backhaul Products to any Communications Provider within a reasonable period of time. TISBO services, however, do not have to be provided on an EoI basis.

5.20 The assessment of SMP in a particular market should assume that no regulatory intervention currently or potentially exists *in that same market*. This is because the very purpose of the SMP analysis is to determine whether any regulation is appropriate in that market. Therefore, assessing SMP in this market requires consideration of a hypothetical market where neither regulation nor the threat of regulation exists.

5.21 The SMP assessment is based on the most appropriate and current available information. This evidence pertains directly to the retail and wholesale markets under examination. In the case of wholesale markets, it is also based on information in relation to the corresponding retail markets where this can also inform the wholesale analysis. For example, Ofcom has estimated market shares at the wholesale level based on information available at both the retail and wholesale levels.

Wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area

Summary of conclusions

5.22 Ofcom's current view is that BT has SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area.

5.23 Our conclusion is based particularly on the following:

- BT's high market share (56 per cent by volume);
- The extensiveness of BT's infrastructure and the fact that such infrastructure is not easily duplicated;
- BT's ability to exploit economies of scale and scope; and
- The existence of significant barriers to entry and expansion, including as a result of sunk costs. New network build is generally only economical if short lines are required and if there are no other impediments to competition.

5.24 Our view that BT has SMP in this market has been informed by responses to the January 2008 consultation. OCPs and MNOs generally said that 155 Mbit/s TISBOs

are only supplied in competitive conditions in some metropolitan areas, and that in the rest of the UK there is no realistic alternative to BT.

5.25 Some of these responses were supported with confidential evidence to support this view. This evidence included a description of the extent to which one company had tried to encourage companies other than BT to supply of 155 Mbit/s TISBO services outside of major metropolitan areas (including offering longer term contracts), and the fact that there measures were largely unsuccessful. Another example consisted of a case study of a major infrastructure bid, and the limited extent to which the OCP was able to justify expanding its own network, or finding an alternative to BT, for 155 Mbit/s TISBO services.

5.26 Our analysis is set out in detail below, beginning with an assessment of the quantitative information available, then turning to the qualitative information.

Quantitative information criteria: market shares

5.27 As set out in the table below, BT's 2006 volume share in this market is 56 per cent. This is above the 50 per cent level that the Commission regards as creating (in and of itself) a presumption of dominance.

Table 5.1: Volume shares for the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area (2006)

	Share (%)
BT	56
C&W	31
Thus	4
Others (no other CP had >3%)	9

Source: CP data, Ofcom

5.28 BT's largest competitor in this market, C&W, has a share of 31 per cent. Thus, the third largest operator in this market, has a much lower share of 4 per cent. There are also a large number of small competitors.

5.29 It is not possible to directly compare BT's current market share to the shares cited in the 2003/04 Review. This is because both the product and geographic aspects of the market definition have changed. In the last market review, the product definition included all bandwidths between 8 Mbit/s up to and including 155 Mbit/s lines and the geographic market included the CELA. We therefore don't have available information to assess whether BT's market share has changed significantly since the 2003/04 Review.

Quantitative information: Excess pricing and profitability

5.30 Profits which are significantly and persistently above the level which would be expected in a competitive market may indicate that the firm has SMP. In a competitive market, returns would be expected to tend towards the level that would be required by investors in order to compensate them for any risk incurred by investing in the firm, that is, the firm's weighted average cost of capital ("WACC"). The extent to which the firm is able to earn profits above the competitive level may then be indicated by a comparison of its return on capital employed

(ROCE) with its WACC - although care must be taken in drawing inferences from the result.

5.31 Information on BT's ROCE is not available regarding the specific geographical area of the UK excluding Hull and CELA. However, there is information on BT's nationwide revenues and costs for the very high 155 Mbit/s bandwidth TISBO market. This includes profits associated with serving the CELA market, in relation to which a different ROCE may apply.[26]

5.32 In the January 2008 consultation, we said that BT's (unaudited and unpublished) additional financial statements reported BT's ROCE as being 48% for 2006/07 for the very high 140/155 Mbit/s TISBO circuits. Since then, BT has provided revised figures. These would imply the return may be lower.

5.33 Whether we consider the revised figure, this ROCE for 2006/07 is likely to be high, well above BT's cost of capital (11.4 per cent) and significantly higher than its returns in lower bandwidth TISBO markets.

5.34 However, as with the case for the lower bandwidth TISBO markets[27], Ofcom has decided not to place much weight on BT's ROCE in this market. Specifically, BT's high fully attributed cost based profitability in this market does not necessarily indicate that BT has SMP. Instead, it may reflect the recovery of common costs assumed when the last set of charge controls were set. BT's chosen price structure exhibits a stronger tendency for price to increase with bandwidth than its cost structure, as given by the way costs are allocated in its accounts. This pricing structure may be efficient and indeed it may be consistent with a competitive market (based on infrastructure competition). It may reflect demand side factors (willingness to pay) in recovering a greater proportion of fixed costs (which are common between circuits of different bandwidths) from higher bandwidth circuits than is allocated to them under the accounting rules.

Qualitative criteria

5.35 The following paragraphs consider the SMP qualitative criteria identified by the Commission and ERG Guidelines that we consider are most relevant to this market. Ofcom considers that many of the impediments to competition developing in the wholesale high bandwidth TISBO market excluding CELA and the Hull area (as set out in paragraphs 7.240 to 7.267 of the January 2008 consultation) also apply to this market.

5.36 There are a number of other SMP criteria identified by the Commission and ERG Guidelines that Ofcom does not believe are particularly relevant to its assessment of SMP in the wholesale markets in the business connectivity market review. These criteria and our reasons for not placing much emphasis on them are discussed in sections 7.158 to 7.183 of the January 2008 consultation.

Supply-side: Control of Infrastructure not easily replicated

5.37 BT is at an advantage relative to its competitors as a result of having in place network infrastructure throughout the UK. This enables it to supply very high 155

[26] Without investigating the particular revenues and costs associated with BT's CLZ charging – information which is not available to us – it is difficult to predict whether excluding these services would significantly change the reported returns.

[27] See paragraphs 7.198 to 7.201 and 7.251 of the January 2008 consultation.

Mbit/s bandwidth TISBO services at most locations within a reasonable period and without incurring substantial additional costs. In contrast, OCPs do not have extensive local networks throughout the UK. They would need to incur substantial sunk costs to extend local infrastructure.

5.38 In the January 2008 consultation, when we were considering a market for all bandwidths over 45 Mbit/s, we postulated that the revenues that could be earned from the downstream services meant that OCPs would generally be willing to invest in the high fixed costs necessary to service particular customers in this market. We suggested that this would imply that BT's control of infrastructure would be unlikely to be a source of SMP.

5.39 However, after considering responses received, we have differentiated between TISBO circuits above and below 155 Mbit/s. For the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area, we now believe that the revenues OCPs can earn are not generally sufficient to justify the fixed costs involved in extending OCPs networks. This is consistent with the fact that BT has a 56 per cent volume share.

5.40 We consider that BT's control of the infrastructure required to provide TISBO services does creates a significant advantage for BT in the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area.

Supply-side: Economies of scale

5.41 Ofcom considers that this market is characterised by economies of scale, with large fixed costs associated with digging trenches and then ducting, laying fibre and way leaves. Other economies of scale are associated with the cost of equipment at sites which do not increase significantly with capacity.

5.42 The fact that BT has a substantially larger market share than its next largest competitor indicates that overall BT is likely to serve more customers using the same equipment at local exchanges and at third party sites and so obtain either better equipment utilisation, and/or use higher capacity equipment that is cheaper on a per customer basis. BT's large market share also implies that it can benefit from existing ducts to a greater extent than OCPs. As a result, Ofcom considers that BT is likely to enjoy larger economies of scale at the local access level than OCPs.

Supply-side: Economies of scope

5.43 BT is likely to obtain some advantages as a result of the fact that the investments that it has made in trenches and ducts to serve this market can also be used to serve other markets in which it has a very large presence (e.g. for lower bandwidth TISBO services and services other than TISBO). While most OCPs also offer a range of products and services over which they can spread common costs, BT's share of most of the other markets is typically higher than for its competitors, and hence BT is likely to have greater advantage from economies of scope than OCPs. Economies of scale for the low bandwidth TISBO market were discussed in more detail in paragraphs 7.217 to 7.221 of the January 2008 consultation, and Ofcom believes that the same arguments that apply to that market also apply to this market.

5.44 Ofcom therefore considers that BT enjoys greater economies of scope than OCPs and that this strengthens BT's position in this market.

Supply-side: Absence of potential competition

5.45 The threat of potential entry can act as a constraint on firms raising prices above competitive levels. In the extreme, a firm with 100 per cent market share could be constrained to behave in a way that would be consistent with higher levels of competition existing in the market than its market share might suggest. However, this threat becomes weak when there are barriers to entry. For the reasons set out immediately below, we believe that the threat of entry in the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area is weak and that the threat of potential competition is therefore unlikely to act as a constraint on market power.

Supply-side: Barriers to entry

5.46 As with lower bandwidth TIBSO services, BT has sunk a significant share of the network costs associated with the provision of leased lines, such as digging and laying ducts, which are very expensive components of the access network. This gives BT a strategic advantage over would-be competitors in the provision of very high bandwidth 155 Mbit/s TISBO services outside the CELA. In contrast, entrants generally need to sink costs in order to compete at the wholesale level. The existence of considerable economies of scale and scope make it harder for entrants to compete on an equal basis with BT in this market.

5.47 While the revenues that can be earned in from wholesale very high bandwidth 155 Mbit/s TISBO services make these factors less important than for lower bandwidths, we believe that they are still significant factors outside the CELA.

Supply-side: Barriers to expansion

5.48 The advantages that BT enjoys from economies of scale and scope and the fact that it has already sunk a significant share of the network costs associated with providing TISBO services are likely to create barriers to expansion by the firms already operating in the market. This is because expansion to connect new customers generally requires new network build. The absence of a ubiquitous network means that, in most cases, operators apart from BT face barriers to expansion due to the sunk costs of network build. These may often make such expansion uneconomic, particularly where (as is often the case at 155 Mbit/s) only single circuits are demanded at any one location.

5.49 Given evidence received in response to the January 2008 consultation, we believe that outside the CELA, the revenues that can be earned in the very high bandwidth 155 Mbit/s TISBO market are generally unlikely to justify standalone investments. Particularly where way leaves are required, or where a customer is only prepared to acquire retail lines pursuant to a short-term contract, it is generally unlikely to be economic for OCPs to build new infrastructure in this market.

Demand side: Countervailing buyer power

5.50 We believe that the discussion of this criterion in Ofcom's analysis of SMP in the market for low bandwidth TISBO (in paragraphs 7.231 to 7.233 of the January 2008 consultation) also generally applies to the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area. We believe that there is unlikely to be any significant countervailing buyer power in this market.

Previous anti-competitive behavior

5.51 Ofcom is not aware of any evidence of past anti-competitive conduct in this market.

Likelihood of competition developing in the future

5.52 We do not believe that there is any evidence to suggest that BT's SMP that currently characterises this market is likely to reduce during the period covered by this review. The underlying factors that give BT SMP currently are unlikely to change during the period covered by this review.

Question 5: Do stakeholders agree with our assessment of SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area?

Wholesale very high bandwidth 155 Mbit/s TISBO market in the CELA

Summary of conclusions

5.53 Ofcom's view is that no company has SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the CELA and that the market is therefore effectively competitive.

5.54 From the information available to Ofcom, Colt rather than BT has the largest market share, in terms of volumes. Colt has a market share greater than 50 per cent, a level that the SMP Guidelines consider normally create a presumption of SMP. However, we believe that circumstances exist in the CELA which suggest that Colt does not have SMP in this market. For the reasons given below, we believe there is effective infrastructure competition within the CELA for wholesale very high bandwidth 155 Mbit/s TISBO services.

5.55 When compared to BT, Colt can be regarded as a new entrant, having built the first part of its network in London in 1993. Colt's position has therefore been built up by competing against BT and others, and does not therefore indicate the persistence of incumbency advantages in the market (as might for example be the case where BT retains a high share).

5.56 BT is the second largest operator with a market share of 17 per cent. There are currently SMP remedies imposed on BT, as BT was judged to have SMP in the wider market definition that was used in the 2003/04 Review. If the SMP remedies on BT were lifted for the wholesale very high bandwidth 155 Mbit/s TISBO market in the CELA, BT may be able to compete more rigorously in this market.

5.57 Moreover, in addition to Colt and BT, there are other companies which have extensive networks in the CELA. The CELA has been constructed such that there are at least *three* network operators within 200m of large business sites within each postal sector. This means that it is unlikely that any one of these operators will have significant cost advantages over the other operators through having control of infrastructure.

5.58 As with the corresponding high bandwidth market, the small territory covered by the CELA, combined with the high number of retail customers within the area, enable OCPs to attain scale in this market. The economies of density that can be attained in this market prevent any one company from operating at an advantage as a result of any economies of scale or scope that it is able to attain compared to the other

companies with extensive networks within the CELA. This is consistent with many of the responses to the January 2008 consultation that expressed views on this.

Quantitative information criteria: market shares

5.59 Volume shares for this market are set out in Table 5.2 below.

Table 5.2: Volume shares for very high bandwidth 155 Mbit/s traditional interface symmetric broadband origination in the CELA (2006)

	Share (%)
Colt	55
BT	17
C&W	11
Verizon	8
Thus	3
Others (no other CP had >3%)	5

Source: CP data, Ofcom

5.60 Colt has the largest volume share by some margin, with 55 per cent of the market. Colt's market share is greater than the 50 per cent that the SMP Guidelines consider normally create a presumption of SMP. However, we believe that the circumstances present in the CELA argue against Colt having SMP. In particular, various other companies have invested in networks covering the CELA and Colt is subject to competition from these. It should also be noted that Colt's market share has been built up by competing against BT and others and does not therefore indicate the persistence of incumbency advantages in the market (as might for example be the case where BT retains a high share).

5.61 BT is the next largest with 17 per cent. BT's share is below the 25 per cent level at which the Commission would normally dismiss concerns about unilateral dominance for an operator without the need for further analysis.

5.62 It is not possible to compare market shares with those at the time of the 2003/04 Review because we do not have geographical split for the data at that time and so cannot consider the market shares only in the CELA.

Quantitative information: Profitability

5.63 Information on BT profitability for wholesale very high bandwidth 155 Mbit/s TISBO sales throughout the UK, including the CELA, is set out in paragraphs 5.31 to 5.33 above. Data for the CELA alone are not available. In any case, Ofcom has decided not to place much weight on these figures for the reasons set out in the earlier discussion.

Qualitative information

5.64 The following paragraphs consider the most relevant SMP qualitative criteria identified by the Commission and ERG Guidelines. Criteria which may give rise to SMP on the supply-side are first considered, followed by criteria which may give rise to SMP on the demand side. Finally, we consider evidence of previous anti-competitive behaviour in this market.

5.65 Other SMP criteria identified by the Commission and ERG Guidelines that Ofcom does not believe are particularly relevant to this market are discussed in sections 7.158 to 7.183 of the January 2008 consultation.

Supply-side: Control of Infrastructure not easily replicated

5.66 The network reach analysis presented in Section 4 shows that there is substantial facilities-based competition in this market. The CELA has been constructed such that there are at least three network operators within 200m of large business sites within each postal sector. It is therefore not the case that Colt, or BT, uniquely control infrastructure that could be used to supply services to customers.

Supply-side: Economies of scale

5.67 Even though high fixed costs must be incurred to enter this market, we do not believe that either Colt or BT is likely to have gained a substantial advantage from economies of scale. This is because there is high customer density in the CELA which, combined with the number of competing networks within an economic build distance of these customers, means that no operator has a significant scale advantage over any other.

Supply-side: Economies of scope

5.68 A number of operators have built networks covering the CELA which are used not just for this market but for other markets as well, including the high bandwidth TISBO market in the CELA. Because a number of operators have such networks, no one operator is likely to have significant economies of scope advantages over other operators who have networks.

Supply-side: Absence of potential competition

5.69 The threat of potential entry can act as a constraint on firms raising prices above competitive levels. However, this threat becomes weak when there are barriers to entry. For the reasons set out immediately below, we believe that there is some threat of entry in the wholesale very high bandwidth 155 Mbit/s TISBO market in the CELA, which mitigates any potential market power.

Supply side: Ease of market entry

5.70 Although markets for TISBO services are characterised by large sunk costs, the significant entry made by OCPs in this market (reflected in their high share of the market) suggests that sunk costs have not deterred entry in this market. Colt, rather than BT, now has the largest market share.

5.71 As with the high bandwidth TISBO CELA market, and in contrast to markets outside the CELA, it seems likely that the large number and density of customers within this market provide some assurance to CPs that sunk costs that are incurred in serving any one customer are likely to be recovered in this market, even if they lose the custom of a particular customer. For example, if one end-user within a building were to cease acquiring very high bandwidth services before the initial investment in infrastructure had paid off, a CP could attempt to win the custom of other end-users within the building.

Supply side: Barriers to expansion

5.72 Ofcom considers that the factors which imply that there are few significant barriers to entry in this market also imply that there are few barriers to expansion in this market. Just as sunk costs and economies of scale and scope have not impeded new operators entering the market, these factors do not appear to impede existing operators from expanding in the market.

5.73 BT, which has the second largest market share after Colt, is currently subject to SMP remedies as a result of the 2003/04 Review. These remedies include, amongst other things, a requirement to publish a reference offer and a requirement not to unduly discriminate. These remedies may hinder BT in competing in this market. If these remedies are removed, BT may compete more rigorously within the CELA. This contributes to our view that on a forward looking basis Colt is unlikely to have SMP despite its high market share.

Demand side: Countervailing buyer power

5.74 As with the wholesale high bandwidth TISBO market in the CELA, Ofcom considers that significant countervailing buyer power is likely to exist in the wholesale very high bandwidth 155 Mbit/s TISBO market in the CELA. This is because the main customers of these services (i.e. Communication Providers) can generally either credibly threaten to use an alternative supplier or can self-provide. Paragraphs 6.57 to 6.64 of the January 2008 consultation discussed interconnection and described the significant level of interconnection between OCPs in the wholesale high bandwidth TISBO market in the CELA. We believe that the level of interconnection between OCPs in the wholesale high bandwidth TISBO market would also apply to the wholesale very high bandwidth 155 Mbit/s TISBO market as OCPs are able to add additional lines with little incremental cost.

Previous anti-competitive behavior

5.75 Ofcom is not aware of any evidence of past anti-competitive conduct in this market.

Question 6: Do stakeholders agree with our assessment of SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the CELA?

Wholesale very high bandwidth 622 Mbit/s TISBO market in the UK excluding the Hull area

Summary of conclusions

5.76 Ofcom's view is that no company has SMP in the wholesale very high bandwidth 622 Mbit/s TISBO market in the UK excluding the Hull area and that, therefore, the market is effectively competitive.

5.77 BT, which has the most extensive network and most scope to take advantage of any economies of scope, only has a market share of 7 per cent. There are three operators with larger market shares. The market is not particularly concentrated.

5.78 Compared to lower bandwidth markets, barriers to entry and expansion appear to be much lower because of the high revenues that can be earned in this market. The very large amount of traffic that can be carried over a single very high 622 Mbit/s bandwidth TISBO circuit also makes it easier to obtain scale in this market.

5.79 Our conclusions are consistent with most responses to the January 2008 consultation that expressed views on this. These generally suggested that this market was competitive.

Quantitative information criteria: market shares

5.80 Below we set out the market shares in this market, expressed in volume terms.

Table 5.3: Volume shares for the wholesale very high bandwidth 622 Mbit/s TISBO market in the UK (2006)

	Share (%)
KCOM*	39%
Thus	27%
Verizon	9%
BT	7%
C&W	6%
Virgin Media	5%
Others (no other CP had >3%)	7%

* These volumes correspond to KCOM's activities outside the Hull area
Source: CP data, Ofcom

5.81 This shows that there are a number of OCPs in this market that have a bigger market share than BT. BT's only has 7 per cent of this market, well below the 25 per cent level at which the Commission would normally dismiss concerns about unilateral dominance without the need for further analysis. This is similar to BT's market share in the 2003/04 Review, where it was judged likely to be below 10 per cent. Given BT's low market share, we believe that it is clear that BT does not have SMP in this market.

5.82 KCOM and Thus are the two largest operators. KCOM, the largest operator, has a market share just below the level of 40% that the SMP Guidelines state normally raise concerns about dominance. While KCOM's market share is fairly large, it faces competition from a number of other sizeable operators and, because of the other considerations discussed below, we do not think that KCOM or any other operator has SMP in this market. Market shares for other operators were not given in the 2003/04 Review.

5.83 We have also considered whether there would be significant variations in market share if we considered the CELA separately. The market shares for the UK excluding both the Hull area and the CELA are broadly similar to those when the CELA is included, as the CELA makes up a relatively small share of the market. If we consider just the CELA, the top three companies are the same, athough the ranking changes, with the highest market share being 31 per cent. BT's market share in the CELA is lower than in the rest of the UK. We therefore think that it would make no difference to the conclusion that no operator has SMP if we had considered the CELA as a separate geographic market.

Quantitative information: Profitability

5.84 Neither BT's published regulatory financial statements nor its additional financial statements disaggregate its financial performance for the wholesale very high bandwidth 622 TISBO market in the UK. In any case, we would not want to place much weight on such information even if it were available. The reasons for this are

the same as for the lower bandwidth markets, summarised in paragraph 5.33 above.

Qualitative information

5.85 The following paragraphs consider the most relevant SMP qualitative criteria identified by the Commission and ERG Guidelines. Criteria which may give rise to SMP on the supply-side are first considered, followed by criteria which may give rise to SMP on the demand side. Finally, we consider evidence of previous anti-competitive behaviour in this market.

5.86 Other SMP criteria identified by the Commission and ERG Guidelines that Ofcom does not believe are particularly relevant to this market are discussed in sections 7.158 to 7.183 of the January 2008 consultation.

Supply-side: Control of Infrastructure not easily replicated

5.87 As with the very high bandwidth 155 Mbit/s TISBO market excluding CELA and the Hull area, BT will have some advantages in this market as a result of having in place extensive network infrastructure. This would make it easier for BT to provide very high 622 Mbit/s TISBO services.

5.88 The costs that are incurred in supplying a single very high bandwidth 622 Mbit/s TISBO circuit do not differ substantially from the costs of serving lower bandwidth markets. The costs of fibre and duct are independent of bandwidth and so the main cost item which differs between these markets is the cost of the electronic equipment. Very high bandwidth TISBO services generally require optical transmission, whereas much lower bandwidth services require electrical transmission (the latter being cheaper). BT is likely to have less of a cost advantage in supplying the electronic equipment. This is likely to make BT's cost advantage smaller than in the wholesale very high 155 Mbit/s TISBO market.

5.89 Moreover, the revenues that can be earned from the downstream services that are provided over a single very high bandwidth 622 Mbit/s TISBO circuit are significantly higher than the revenues that can be earned over retail services provided over lower bandwidth TISBO markets.

5.90 The fact that this market is characterised by a relatively small number of very high value circuits means that CPs are generally willing to invest in the high fixed costs that are necessary to serve particular customers. This implies that control of infrastructure by BT, KCOM or any other operator is unlikely to be a source of market power.

Supply-side: Economies of scale

5.91 Even though high fixed costs must be incurred to enter this market, we do not believe that BT, KCOM or any other operator are likely to have gain a substantial advantage from economies of scale compared to other competitors in the market. This is because the high revenues that can be earned in this market mitigate the effects of any economies of scale.

Supply-side: Economies of scope

5.92 BT has the greatest potential to gain from economies of scope because of its more extensive network and its greater market share in the lower bandwidth TISBO

markets. However, because of the very high volumes of traffic that are carried over high bandwidth 622 Mbit/s TISBO circuits, we consider that the ability to derive additional efficiencies from economies of scope are less likely to create advantages in this market compared to lower bandwidth TISBO markets. There are a number of operators larger than BT in this market, which is consistent with the economies of scope not being significant.

Supply-side: Absence of potential competition

5.93 The threat of potential entry can act as a constraint on firms raising prices above competitive levels. However, this threat becomes weak when there are barriers to entry. For the reasons set out immediately below, we do not believe that there are strong barriers to entry in this market, which mitigates any potential market power.

Supply side: Ease of market entry

5.94 As noted in the discussion in the January 2008 consultation on low and high bandwidth TISBO markets, markets for TISBO are characterised by large sunk costs. However, the very significant entry made by OCPs in this market (reflected in their high share of the market) suggests that sunk costs have not deterred entry in this market. It seems likely that the relatively high expected retail revenues that can be earned from retail products offered over very high bandwidth 622 Mbit/s circuits provide an assurance to OCPs that sunk costs can be recovered, thereby making the market more attractive to potential entrants. We do not consider that there are strong barriers to entry in this market.

Supply side: Barriers to expansion

5.95 Ofcom considers that the factors which imply that there are few significant barriers to entry in this market also imply that there are few barriers to expansion in this market. Just as sunk costs and economies of scale and scope do not impede new players entering the market, these factors do not appear to impede existing players from expanding in the market.

Demand side: Countervailing buyer power

5.96 Ofcom considers that significant countervailing buyer power is likely to exist in this market. This is because the main customers of these services (i.e. CPs) can generally either credibly threaten to use an alternative supplier or can self-provide.

Previous anti-competitive behavior

5.97 Ofcom is not aware of any evidence of past anti-competitive conduct in this market.

Question 7: Do stakeholders agree with our assessment of no SMP in the wholesale very high bandwidth 622 Mbit/s TISBO market in the UK excluding the Hull area?

Wholesale very high bandwidth 155 Mbit/s TISBO market in the Hull area

5.98 Ofcom's view is that KCOM has SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the Hull area.

5.99 There are no TISBO circuits in the Hull area above 155 Mbit/s. This means that the analysis set out in the January 2008 consultation for the market which we were then proposing (namely, all TISBO circuits over 45 Mbit/s in the Hull area) applies

equally to our new proposed market definition, which defines the market as being those circuits above 45 Mbit/s up to and including 155 Mbit/s.

5.100 Now, as then, Ofcom's view is that the following factors provide strong evidence that KCOM has SMP in this market:

- KCOM's very high market share (98 per cent);
- The ubiquity of KCOM's infrastructure and the fact that this infrastructure is not easily duplicated;
- KCOM's ability to exploit economies of scale and scope;
- The existence of significant barriers to entry and expansion, including as a result of sunk costs.

5.101 This is discussed in more detail in paragraphs 7.460 to 7.477 of the January 2008 consultation.

Question 8: Do stakeholders agree with our assessment of SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the Hull area?

Wholesale very high bandwidth 622 Mbit/s TISBO market in the Hull area

5.102 There are currently no TISBO circuits over 155 Mbit/s in the Hull area and we do not anticipate there being any significant demand in the future. However, as SMP assessments are forward looking, we do nevertheless briefly consider whether any operator is likely to have SMP in the Hull area.

5.103 As the incumbent fixed line operator in the Hull area, KCOM would be the most likely candidate were any operator to be considered to have SMP. KCOM would probably have greatest scope to take advantage of any economies of scope.

5.104 However, as with this market in the rest of the UK, we believe that economies of scope are less likely to create significant advantages for very high bandwidth 622 Mbit/s TISBO services compared to the lower bandwidth TISBO markets. This is because the revenues that can be earned from such circuits are high relatively to the benefits of any economies of scope.

5.105 In the event that demand for 622 Mbit/s circuits did emerge in the Hull area, it may be appropriate to undertake a more substantive assessment of whether KCOM (or any other operator) had SMP. In the absence of such demand, and based on the fact that we do not consider that economies of scope are large in this market, we conclude that no operator has SMP in the wholesale very high bandwidth 622 Mbit/s TISBO market in the Hull Area.

Question 9: Do stakeholders agree with our assessment of no SMP in the wholesale very high bandwidth 622 Mbit/s TISBO market in the Hull Area?

Section 6

Regulatory remedies and Impact Assessment

Introduction

6.1 In this Section we consider the proposals for regulatory remedies that should apply to BT and KCOM. In Section 5, we proposed to find BT and KCOM to have SMP in the markets for wholesale very high 155 Mbit/s TISBO in, respectively, the UK excluding the CELA and the Hull area, and the Hull area. This Section discusses the appropriate regulatory options for these markets, and sets out our proposals for regulatory remedies.

6.2 It also includes an Impact Assessment, as defined in Section 7 of the Act. There will be a one month public consultation, during which stakeholders are invited to submit their views. Any comments on our proposals and the Impact Assessment should be sent to us by the closing date for this consultation. All comments will be considered when finalising our proposals.

Revocation of existing remedies

6.3 The 2003/04 Review imposed SMP conditions on BT and KCOM in a number of leased lines markets. In some of those markets, our analysis indicates that SMP no longer exists. In others, new SMP conditions are proposed, on the basis of either new or existing market definitions.

6.4 In either case, it is our view that, once this market review is concluded, the SMP conditions introduced by the 2003/04 Review should no longer apply in their current form. In our January 2008 consultation we, therefore, proposed to revoke all the SMP conditions imposed on BT and KCOM in the 2003/04 Review with the conclusion of this market review process (and for the existing charge control obligations with the conclusion of the review of such charge controls).

6.5 It remains our proposal that following this review and the review of existing charge control obligations all SMP Conditions imposed on BT and KCOM in the 2003/04 Review should be revoked and replaced, where appropriate, by new obligations as set out in the January 2008 consultation, this consultation document and the forthcoming consultation on charge controls.

The legal framework for imposing SMP conditions

6.6 In considering the imposition of SMP conditions, Ofcom has had regard to its duties under the Act and the EC framework for telecommunications regulation. It has also taken utmost account of relevant guidelines produced by the EC, the ERG, Oftel and Ofcom.

6.7 Section 87(1) of the Act, which implements Art. 8 of the Access Directive, provides that, where Ofcom has made a determination that a person is dominant in a particular market, it shall set such SMP conditions as it considers appropriate and as are authorised under the Act.

6.8 In assessing the appropriateness of regulatory remedies Ofcom has particularly taken into account paragraphs 21 and 114 of the EC's SMP Guidelines which state that NRAs must impose one or more appropriate SMP services conditions on a dominant provider, and that in the view of the Commission it would be inconsistent with the objectives of the Framework Directive not to impose any SMP services conditions on an undertaking which has SMP.

6.9 The Act sets out the obligations that Ofcom may impose if it finds that any undertaking has SMP. Sections 87 to 92 of the Act implement Articles 9 to 13 of the Access Directive and Articles 17 to 19 of the Universal Service Directive.

6.10 The SMP conditions which Ofcom is authorised to impose on a dominant provider include requirements to do the following:

- To provide network access to the relevant network and facilities;
- Not to discriminate unduly in their provision;
- Obligations to secure transparency in relation to interconnection and/or network access; and
- To maintain separated accounts.

6.11 Ofcom may also impose:

- Price controls;
- Rules about the recovery of costs and cost orientation;
- Rules about the use of cost accounting systems; and
- Rules about the adjustment of prices.

6.12 In considering the remedies to impose, we have also had regard to our general duties as set out in Section 3 of the Act. Section 3(1) states that Ofcom's principal duty is to further the interests of citizens in relation to communications matters and consumers in relevant markets, where appropriate, by promoting competition. Specifically, Section 3(2)(b) states that Ofcom is required to secure the availability of a wide range of electronic communications services throughout the UK.

6.13 Section 3(4)(b) explains that, in meeting these requirements, Ofcom must have regard to the desirability of promoting competition in relevant markets. Section 3(4)(e) states that Ofcom must have regard, in performing its duties, to the desirability of encouraging the availability and use of high speed data transfer services throughout the UK. Also, pursuant to Section 3(5) of the Act, in furthering the interests of consumers, Ofcom must have regard to choice, price, quality of service and value for money.

6.14 Section 4 of the Act sets out the duties of Ofcom to act in accordance with its Community obligations which flow from Article 8 of the Framework Directive, and include the duty:

- To promote competition;
- To contribute to the development of the internal market;

- To promote the interests of all EU citizens;
- Not to favour one type of network, service or facility over another;
- To encourage network access and service interoperability in order to promote efficiency and competition; and
- To encourage compliance with relevant international standards.

6.15 Ofcom is also required under Section 6 of the Act to ensure that regulation by Ofcom does not involve the imposition or maintenance of unnecessary burdens and to consider the scope for effective self-regulation.

6.16 When considering our proposals, we have also taken account of:

- The EC's SMP Guidelines[28];
- The Access Guidelines published by Oftel in September 2002('the 2002 Access Guidelines)[29]; and
- The Revised ERG Common Position on the approach to appropriate remedies in the regulatory framework for electronic communications networks and services (the ERG Remedies Position)[30]; and
- The ERG Common Position on wholesale leased lines remedies[31].

6.17 The Commission's SMP Guidelines state at paragraph 15 that regulation should aim to promote an open and competitive market, and at paragraph 16 that ex ante regulations should be imposed to ensure that an SMP provider cannot use its market power to restrict or distort competition on the relevant market or leverage market power onto adjacent markets.

6.18 The Commission considers that in most cases it is preferable to apply regulation at the wholesale level. Ofcom agrees with the Commission's view. Regulation at the wholesale level can serve a twofold purpose. First, it can be used to address SMP concerns in the relevant wholesale market. Second, this might, in turn, increase competition in the downstream markets that rely on these wholesale inputs and render retail regulation unnecessary.

6.19 The 2002 Access Guidelines describe the circumstances in which Ofcom would consider the imposition of wholesale access obligations to be appropriate, give guidance on the nature of the wholesale products Ofcom would expect to be supplied as a result of an obligation to provide access, and describe the conditions under which products should be made available.

[28] Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03).

[29] These guidelines can be found at http://www.ofcom.org.uk/static/archive/oftel/publications/ind_guidelines/acce0902.htm.

[30] See http://erg.eu.int/doc/meeting/erg_06_33_remedies_common_position_june_06.pdf

[31] See http://erg.eu.int/doc/publications/erg_07_54_wll_cp_final_080331.pdf

6.20 As well as being appropriate, as required by Section 87(1) of the Act, each SMP condition must also satisfy the tests set out in Section 47(2) of the Act. These are that each condition must be:

- objectively justifiable in relation to the networks, services or facilities to which it relates;
- not such as to discriminate unduly against particular persons or a particular description of persons;
- proportionate to what the condition is intended to achieve; and
- in relation to what it is intended to achieve, transparent.

6.21 It is Ofcom's view that the SMP service conditions proposed for KCOM and BT in this Section satisfy the relevant requirements specified in the Act and relevant Directives. This is explained later in this Section.

Impact assessment

6.22 In paragraphs 8.31 to 8.44 of the January 2008 consultation, we set out the framework for Ofcom's impact assessment, our policy objectives for this review and the policy options we considered. We then conducted an assessment of the options separately for each of the markets where we found an undertaking to have SMP.

6.23 In this Section, we set out our assessment of regulatory options for the wholesale market for very high bandwidth 155 Mbit/s TISBO in the UK excluding the Hull area and the CELA, and the market for wholesale high bandwidth 155 Mbit/s TISBO in the Hull area, where we propose in Section 5 that, respectively, BT and KCOM have SMP.

6.24 For the purpose of Ofcom's impact assessment, those parts referred to in the January 2008 consultation, along with the review of the options set out in the remaining of this document constitute Ofcom's impact assessment for this market review.

Markets where we propose to find no SMP

6.25 For those markets where we propose to find no undertaking with SMP, we are obliged under the Communications Act to remove any existing remedies and impose no new ones. These markets are:

- Market for wholesale high bandwidth 155 Mbit/s TISBO in the CELA;
- Market for wholesale high bandwidth 622 Mbit/s TISBO in the UK excluding the Hull area; and
- Market for wholesale very high bandwidth 622 Mbit/s TISBO in the Hull area.

6.26 For these markets, we have not conducted a formal assessment of various options, since the only option available to us is the removal of regulation.

Review of regulatory remedies – BT

Wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding the CELA and the Hull area

Current regulatory obligations on BT

6.27 Under the 2003/04 Review BT has certain SMP obligations with respect to the high bandwidth TISBO market, comprising of circuits of speeds above 8 Mbit/s and up to, and including, 155 Mbit/s. As a result, BT is currently subject to the following obligations in relation to 155 Mbit/s TISBO:

- A general obligation to provide network access on reasonable request;
- a requirement not to unduly discriminate;
- cost orientation;
- cost accounting and financial reporting obligations;
- charge controls;
- a requirement to publish a reference offer;
- an obligation to give 90 days notice of changes to prices, terms and conditions for existing services;
- an obligation to give 28 days notice of the introduction of prices, terms and conditions for new services;
- a requirement to publish quality of service information;
- a requirement to notify technical information with 90 days notice; and
- obligations relating to requests for new network access.

6.28 In addition, Ofcom clarified certain obligations by issuing the following Directions:

- A direction to provide PPCs ("The PPC Direction"); and
- A direction to provide LLU backhaul.

Summary of January 2008 proposals

6.29 In the January 2008 consultation, we proposed that no operator had SMP in the provision of wholesale very high bandwidth TISBO in the UK excluding the Hull area, comprising of circuits at speeds above 45 Mbit/s. We therefore proposed to lift the current regulation applying to BT in the provision of 155 Mbit/s TISBO services.

Responses to the January 2008 consultation and Ofcom's response

6.30 As outlined in the market definition and SMP assessment sections, following respondents' comments, we have reviewed our original proposals as set out in the January 2008 consultation. We are now proposing that BT has SMP in the market for

wholesale very high bandwidth 155 Mbit/s TISBO in the UK excluding the CELA and the Hull area. As a result, we have to consider the most appropriate regulatory option for us to adopt and what level of regulation should apply to BT in this market.

Assessment of regulatory options

Option 1: No regulation

6.31 BT's market share in this market is estimated to be 56%. In the light of this finding and the other factors discussed at paragraph 5.22 and following, we have found BT to have SMP in this market.

6.32 Under these circumstances, if ex-ante obligations were to be withdrawn in their entirety, there is a risk that BT would cease to make its network facilities available to competing firms, either entirely or on terms and conditions that were unduly discriminatory. Such behaviour could reduce the choice of suppliers available to consumers of related retail services or otherwise restrict competition in downstream markets. It would also be likely to have distributional effects, benefiting BT at the expense of competing suppliers.

6.33 We therefore believe, in accordance with the EC SMP Guidelines, that this option should be rejected.

Option 2: Status quo

6.34 BT is currently subject to the obligations listed at paragraph 6.27 above. These are essentially the same set of SMP obligations that apply to BT in the wholesale low and high bandwidth TISBO markets, including an obligation to provide ISH and CSH, and a charge control. The results of our market analysis suggest that the current remedies have been successful in supporting retail level competition for higher bandwidth markets, whilst also enabling competition at the wholesale level to increase in some areas. This is reflected in the emergence of a separate CELA market for wholesale very high bandwidth 155 Mbit/s TISBO, in which we propose to find no supplier having SMP.

6.35 However, one of the weaknesses in the current regime that were discussed in the January 2008 consultation at paragraph 8.120 and following in relation to low bandwidth services also apply to this market. This is the inadequacy of the current SLA/SLG[32] regime, which is regarded by CPs as overly complex and ineffective. In view of that, Ofcom does not believe it would be appropriate simply to maintain the status quo.

6.36 One further issue to consider concerns the set of services that BT provides under the Netstream and Netstream 16 tariffs. They comprise traditional interface services at various bandwidths, including 155 Mbit/s. These services are currently considered retail services by BT and the tariff structure includes saw tooth discounts, which could be considered as potentially anti competitive. These products are sold mainly to operators, particularly mobile operators, who use them to build their networks. Insofar as they constitute sales of infrastructure to other providers, in a market upstream of their target retail market, we believe they should

[32] Service Level Agreement ('SLA') is a contract between a network service provider and a customer that specifies, usually in measurable terms, what services the network service provider will furnish. Service Level Guarantee ('SLG') is a statement of measurable aspects of a service connected with the Service Level Agreement.

be considered as wholesale services for the purpose of applying the relevant ex-ante regulation.

Option 3: Variations and additional measures

6.37 As discussed above, we do not believe that the option of no regulation, or maintaining the status quo, would serve appropriately our policy objectives for this review. In particular, we believe that changes are required to address the weaknesses in the SLAs/SLGs regime.

6.38 The current SLA/SLG regime, enforced under the 2003/04 Review, was designed to incentivise BT to provide an adequate level of performance for PPCs to allow its competitors to compete on equal terms in downstream markets, or provide adequate compensation when it failed to do so. Ofcom agrees with the industry's view that the current regime has failed to deliver on its objectives, and that the main issue has been the failure to measure performance effectively. As described in the January 2008 consultation, at the end of 2007 Ofcom asked the OTA2 to lead a review of the current regime. To that end, the OTA2 has worked with OCPs and BT to identify a more effective set of Key Performance Indicators (KPIs). These are key indicators of how BT is performing in delivering and repairing its regulated PPCs against its SLAs, and are the basis used to trigger SLGs payments when BT falls short of its SLAs for these products.

6.39 The OTA2 concluded its review earlier this year. It put forward some proposals for a new set of KPIs agreed upon by the industry. BT has since been consulting over these new set of KPIs, with a view to implement them once the current review is completed. We have discussed the results of the OTA2 review with the OCPs and BT. They have generally been supportive of the OTA2 work and its outcome. We therefore consider that a set of KPIs that the industry has designed and agreed upon provides a better solution than a set of KPIs enforced through regulation by Ofcom. The final form of the KPIs is yet to be finalised as BT is still consulting with industry. We will reflect in the Final Statement the amended KPIs to be adopted by industry as part of the new proposed regime for leased lines.

6.40 Some CPs have also been arguing that the PPCs SLGs regime should be more closely aligned with the regime for other wholesale leased lines SMP products provided by BT. In particular, with the regime for WESs/WEESs and BESs. In March 2008, Ofcom completed its review of the SLG regime for Openreach Ethernet portfolio of services, including WESs/WEESs and BESs. In the statement entitled *Service level guarantees: incentivising performance*[33] ('the SLG statement'), Ofcom suggested that a number of general principles should apply to SLG arrangements to make them effective and provide appropriate financial incentives to BT to improve performance. These principles were that SLG arrangements should:

- when agreed service levels are not met, make provision for compensation to be made based on a pre-estimate of an average CP's loss;
- ensure that CPs are entitled to make a claim for additional loss;
- pay compensation on a per event basis;
- ensure that compensation payments are made proactively; and

[33] http://www.ofcom.org.uk/consult/condocs/slg/statement/

- allow for efficient cost recovery.

6.41 We explained that SLG regimes which abided by these general principles would be likely to be fair and reasonable in accordance with the relevant SMP services conditions. We therefore assessed the SLGs against these general principles and directed Openreach to amend them where they were inconsistent with the general principles. In the Annex to Schedule 3 ('the PPC Direction') we set out the proposals for aligning the SLG regime for PPCs to that for BT's wholesale Ethernet services.

6.42 We intend to propose that a similar regime applies in the future to BT's provision of regulated PPCs. The proposed amendments are reflected in the draft amended PPC Direction set out in Annex 7, Schedule 3.

6.43 Finally, it is important to note that our proposals are discussed here in relation to BT's provision of 155 Mbit/s PPCs in the market where in Section 3 we are proposing to find BT to have SMP. However, the proposed amendments to the PPC Direction are relevant to all regulated PPC. In addition to the proposals set out in this consultation, in the January 2008 consultation we proposed to find BT to have SMP in the provision of low bandwidth PPCs in the UK excluding the CELA, and in the provision of high bandwidth PPCs in the UK excluding the CELA and the Hull area. The proposed amendments to the PPC Direction should be intended to apply equally to those products sold by BT in the above markets. Stakeholders interested in commenting on our proposals in this area as part of this consultation should take this into consideration when putting forward their views.

Impact on stakeholders

6.44 While BT would gain from the withdrawal of regulation, its competitors may be exposed to anti competitive behaviour that would prevent them from competing effectively with BT in downstream markets. This could result in a restriction of choice for end users. The main benefits to BT would come in the form of a reduced regulatory burden and associated costs. We are not able to quantify with precision what these savings to BT would be, but we do not consider they would be significant. This is because BT would still have to comply with regulatory obligations stemming from a finding of SMP in other reviews and the proposed SMP finding for other leased lines markets as set out in the January 2008 consultation. The incremental cost of regulatory compliance for the very high bandwidth 155 Mbit/s TISBO can therefore be considered negligible.

6.45 On the other side, the cost to the industry of not regulating these services would be potentially significant, mainly in the form of excessive prices that BT could charge absent any regulation. We consider therefore that the order of magnitude of the costs vs. the benefits of not regulating BT is such that the cost to the industry of not regulating are very likely to outweigh any benefits to BT.

6.46 In conclusion, we do not consider that the option of no regulation would therefore further their interests, or the interests of citizens and consumers in this market. In addition, we believe that the option of not regulating would not generate enough benefits to outweigh the likely costs to the industry arising from not regulating the market in question where we have found BT to have SMP.

6.47 We have set out in paragraph 6.34 and following why we believe that maintaining the *status quo* would fail to address the weaknesses of the current regime. We have therefore set out our proposal that, while we should keep the current regulatory obligations (*status quo)* we also need, in addition, to review the SLAs/SLGs regime.

When conducting our Impact Assessment, we have to consider the costs of our proposals versus the benefits we foresee they will bring about. As outlined earlier, we believe that the cost to BT of keeping the current regulation on 155 Mbit/s in place can be considered negligible, and offset by the benefits that the proposed regime would bring about. In addition to those, BT would incur some extra costs from reviewing the SLAS/SLGs regime, which will require consulting with industry and amending the current contracts to reflect any new arrangement. While these costs will be material, BT is allowed, to a reasonable extent, to recover some of it through its regulated cost base. The net effect on BT should therefore be minimal in terms of extra costs for reviewing the SLAs/SLGS regime. On the other side, the benefits to the industry from an improved SLAS/SLGs regime would be significant. In particular, if the regime works properly and provides the right incentive to BT, competitors and end users should experience an increase in the quality of the services. This would result in a reduction in downtime for the services, which causes competitors and end users to incur significant costs.

6.48 Overall, we believe that the proposed variations and additional measures for this market will further the interests of citizens and consumers by promoting the continued growth of competition, which in turn is likely to lead to greater choice, lower prices, improved service quality and more rapid innovation in downstream retail markets. In addition, we consider that the costs to BT arising from the implementation of the proposed regulatory regime would be offset by the perceived benefits arising from the continuation of the current regulation and the improvement of the SLAs/SLGs regime.

Proposed remedies

Network access

6.49 As a result of the proposed SMP finding, Ofcom believes that it is appropriate to impose a requirement on BT to meet reasonable requests for network access. Ofcom considers that, in the absence of such a requirement, a vertically integrated BT would have an incentive not to provide such access, and would be able to monopolise the provision in downstream markets.

6.50 The considerations relevant to network access are essentially the same in this market as in the wholesale market for low bandwidth TISBO, as discussed in paragraphs 8.137 to 8.153 of the January 2008 consultation.

6.51 Ofcom proposes that this condition should also apply to the interconnection and accommodation services discussed at paragraph 6.70 which can be considered as technical areas related to high bandwidth TISBO provision.

6.52 Under the current requirement to provide Network Access, BT is subject to a PPC Direction in this market. The PPC Direction has served the industry well in setting out the exact requirement on BT with respect to the service it has to provide. It has also provided the industry with certainty over service provision which is important for their ability to plan investments effectively. We propose therefore that BT should continue to be subject to a PPC Direction as modified.

6.53 BT is currently also subject to a LLU Backhaul Direction. The market is currently moving away from TDM based LLU backhaul towards Ethernet based backhaul services, which provides a more cost efficient method of transporting data and voice traffic. BT should be free to choose the most efficient technology for their future infrastructure investments. Moreover, emulation techniques will allow the delivery of

TDM speeds over Ethernet. We think therefore that it would be disproportionate on BT to continue to require to offer TDM based LLU backhaul at a time when investments are moving to Ethernet markets. BT should however meet any reasonable request for the delivery of TDM speeds over its future Ethernet network.

No undue discrimination

6.54 Ofcom believes that it is appropriate to impose a requirement on BT not to discriminate unduly in the provision of Network Access as a result of its SMP in the market for wholesale very high bandwidth 155 Mbit/s TISBO in the UK, excluding the CELA and the Hull area. Ofcom considers that, in the absence of such a requirement, the dominant provider would have an incentive to give preferential treatment to its downstream divisions.

6.55 The basis for this proposal is the same as in the case of low bandwidth TISBOs, as discussed in paragraphs 8.154 to 8.163 of the 2008 January consultation.

6.56 Ofcom proposes that this condition should also apply to the interconnection and accommodation services discussed at paragraph 6.70 which can be considered as technical areas related to high bandwidth TISBO provision.

6.57 In addition, Ofcom draws attention to paragraph 8.122 and following of the January 2008 consultation where we set out our intention to apply a presumption of discriminatory behaviour to saw tooth discounts.

Cost orientation

6.58 Ofcom proposes to retain the cost orientation obligation which currently applies in this market, for the same reasons discussed in relation to low bandwidth TISBO in the January 2008 consultation at paragraphs 8.164 to 8.167.

6.59 We propose that this condition should also apply to the interconnection and accommodation services discussed at paragraph 6.70 which can be considered as technical areas related to high bandwidth TISBO provision.

Charge controls

6.60 BT is currently subject to a charge control which expires in September 2008. The finding of SMP means that BT could raise prices to excessive levels. Given the presence of entry barriers, these would not be likely to attract new entry in the market, leading to prices significantly and persistently above competitive level. In a wholesale market, such inefficient pricing could damage competition downstream, particularly if BT were to discriminate in favour of its downstream operations. This would in itself be a distortion of the market, and could lead to higher retail prices for end users. Ofcom currently considers that a new charge control should be introduced when the current controls expire. The appropriateness of such controls will be discussed in detail in a separate consultation on the proposals for the Leased Lines Charge Controls.

6.61 It is our view that, if adopted, this condition should also apply to the interconnection and Accommodation services discussed at paragraph 6.70 which can be considered as technical areas related to high bandwidth TISBO provision.

Transparency and notification obligations

6.62 BT is currently subject to the following transparency and notification obligations:

- an obligation to publish a reference offer, including terms and conditions of provisioning and repair;
- an obligation to give 90 days notice of changes to prices, terms and conditions for existing services;
- an obligation to give 28 days notice of the introduction of prices, terms and conditions for new services;
- a requirement to publish quality of service information;
- a requirement to notify technical information with 90 days notice; and
- obligations relating to requests for new network access.

6.63 These requirements are designed to ensure that BT does not use non-price discrimination to favour its own downstream business. Ofcom considers that the case for such obligations remains strong and therefore proposes to retain these conditions.

6.64 We propose that these conditions should also apply to the interconnection and accommodation services discussed at paragraph 6.70 and following which can be considered as technical areas related to the provision of terminating segments in this market.

Conclusions

6.65 We propose to impose the following obligations on BT in the very high bandwidth 155 Mbit/s TISBO market in the UK, excluding the CELA and the Hull area:

- a general obligation to provide network access on reasonable request;
- a requirement not to unduly discriminate;
- cost orientation;
- cost accounting and financial reporting obligations (the details of these are discussed at paragraph 6.100 and following);
- charge controls (these will be discussed in a separate consultation);
- a requirement to publish a reference offer;
- an obligation to give 90 days notice of changes to prices, terms and conditions for existing services;
- an obligation to give 28 days notice of the introduction of prices, terms and conditions for new services;
- a requirement to provide quality of service information;

- a requirement to notify technical information with 90 days notice;
- obligations relating to requests for new network access; and
- an obligation to comply with the PPC Direction.

6.66 We propose that this condition should also apply to the interconnection and accommodation services discussed at paragraph 6.70 which can be considered as technical areas related to high bandwidth TISBO provision.

6.67 We invite comments from stakeholders on the proposed remedies for this market. At the end of the one month consultation period, we will review the responses, and formalise our final remedies for this market in the Final Statement.

Account taken of the ERG Wholesale Leased Lines Common Position

6.68 In accordance with ERG's Statement of 12 October 2006[34], while ERG Common Positions are not binding, ERG members must take the utmost account of them. Table 6.1 below summarises how Ofcom has taken into account the ERG Wholesale Leased Lines Common Position, referred to in paragraph 6.16 above, in proposing the regulatory remedies for this market.

Table 6.1 Account taken of the ERG Wholesale Leased Lines Common Position

Objective of remedy	Account taken by Ofcom
Assurance of supply	The requirement to provide Network Access on reasonable request should provide competitors with reasonable certainty of ongoing supply of wholesale leased lines in order to give them confidence to enter the market.
Level playing field	The requirement not to unduly discriminate, together with the Discrimination Guidelines, should ensure that entrants will be able to compete on a level playing field.
Avoidance of unfair first-mover advantage	The requirement not to unduly discriminate, together with the Discrimination Guidelines, should ensure that there is no unfair first-mover advantage.
Transparency of terms and conditions	The requirement to publish a Reference Offer and the requirement to notify charges, terms and conditions in advance should provide clarity of terms and conditions of wholesale leased lines.
Reasonableness of technical parameters of access	The requirement to publish a Reference Offer and the requirement to publish technical information and the obligation relating to request for new network access should ensure that the technical parameters of access are reasonable. In addition, the obligation to provide certain interconnection services should provide competitors with the ability to interconnect efficiently and economically at a wide range of locations for

[34] ERG(06)51.

	the purpose of wholesale leased lines interconnection.
Fair and coherent access pricing	The cost orientation obligation and the obligation to comply with charge controls should guarantee competitors that prices for wholesale leased lines is coherent with other services and gives the appropriate incentives for efficient investment decisions to both the SMP operator and its competitors.
Reasonable quality of access products	The requirement not to unduly discriminate, together with the Discrimination Guidelines, the requirement to publish a Reference Offer and the requirement to have transparency as to quality of service should ensure that access products are of reasonable quality.

Communications Act tests

6.69 Section 47(2) of the Communications Act requires regulatory obligations to be justifiable, non-discriminatory, proportionate and transparent. The regulatory obligations which Ofcom proposes in this document to apply to BT are consistent with this requirement. They are justifiable in that they relate to the need identified to ensure competition develops fairly and to the benefit of consumers, and to ensure that BT is not able to raise prices to excessive levels. They do not discriminate against BT in that BT is the only SMP provider in this market. They are proportionate in that, without these obligations, BT could exploit its SMP by raising prices to excessive levels in order to extract super normal profits, or harm competition by withdrawing the provision of such services or supplying them only in a way which placed competitors at a disadvantage. They are transparent in that they are set out clearly in Annex 7, and their justification is clearly explained in this document.

Interconnection and accommodation services relating to BT's provision of services in the wholesale very high 155 Mbit/s TISBO market in the UK excluding the CELA and the Hull area

Introduction

6.70 For those wholesale markets where BT has SMP, Ofcom has also identified the need to impose obligations relating to certain accommodation and interconnection services in addition to the SMP Conditions in the relevant SMP markets.

6.71 Ofcom considers that in order to ensure that regulation in these markets is effective, it is necessary to consider additional obligations in relation to the following services:

- In Span Handover ("ISH") and Customer sited Handover ("CSH");
- In Building Handover ("IBH"); and
- Accommodation services.

6.72 Ofcom has identified the above services as the appropriate technical areas under the Framework to be considered for additional obligations on the SMP provider. The details of such services are discussed at paragraph 6.73 and following.

Current regulatory obligations on BT

6.73 BT is currently obliged to provide interconnections services with respect to wholesale very high bandwidth 155 Mbit/s TISBO. In particular, it is obliged to provide the following services at non discriminatory conditions and cost oriented prices:

- In Span Handover (ISH); and
- Customer Sited Handover (CSH).

Summary of January 2008 proposals

6.74 In paragraphs 8.69 to 8.93 of the January 2008 consultation we set out our rationale for considering interconnection and accommodation services as a technical area as set out by the Commission, we reviewed the services involved, and we considered the relevant Communications Act tests.

6.75 We proposed that BT should provide In Building Handover (IBH) and Accommodation Services in support of disaggregated products in addition to continue to provide ISH and CSH. We proposed that the same level of regulation that applied to the provision of the terminating segments should apply to the provision of interconnection and accommodation services, including a charge control.

Proposed obligations on BT

6.76 At paragraph 8.69 to 8.93 of the January 2008 consultation we set out our proposed obligations for Interconnection and Accommodation services that we proposed should apply to BT in all wholesale markets where we proposed it to have SMP. We did not discuss separately the provision of interconnection and accommodation services for very high bandwidth 155 Mbit/s TISBO, which we then proposed to be provided in a market with no SMP. However, we consider that the rationale and the details of the services involved set out at paragraph 8.73 to 8.76 of the January 2008 consultation equally apply to the provision of 155 Mbit/s TISBO.

6.77 We propose that BT should be subject to the obligation to provide the following interconnection services in relation to the provision of wholesale very high bandwidth 155Mbit/s TISBO in the UK excluding the CELA and the Hull area:

- In Span Handover (ISH);
- Customer Sited Handover (CSH); and
- In building Handover (IBH).

6.78 We further propose that BT should be required to provide Accommodation within its local exchange buildings in support of disaggregated TISBO leased line products. The regulated terms for the provision of these services should be the same that apply to the terminating segments, and are discussed below.

Communications Act tests

6.79 Section 47(2) of the Communications Act requires regulatory obligations to be justifiable, non-discriminatory, proportionate and transparent. They are justifiable in that they relate to the need identified to ensure competition develops fairly and to the benefit of consumers. In particular, we believe that in the absence of access to

regulated Interconnection and Accommodation services, competitive providers would find it difficult to compete with BT in downstream markets. They do not discriminate against BT in that BT is the only SMP provider in this market. They are proportionate in that BT could exploit its SMP by means of extracting super normal profits or withdraw the provision of such services. They are transparent in that they are set out clearly in Annex 2.

Question 10: Do stakeholders agree with our assessment of the appropriate regulatory option and our proposed remedies for very high bandwidth 155 Mbit/s TISBO in the UK excluding the CELA and the Hull area?

Review of regulatory remedies - KCOM

6.80 In the January 2008 consultation, we asked the following questions in relation to our proposed remedies for wholesale TISBO markets where KCOM was found to have SMP:

> Question 20: Do stakeholders agree with our assessment of the appropriate regulatory option and our proposed remedies for the wholesale TISBO markets in the Hull area? In particular, do you think Ofcom should accept Kingston's proposed voluntary undertaking not to increase the prices of its wholesale TISBO services by more than RPI+0% over the next four years?
>
> Question 21: Do stakeholders agree with our assessment of the appropriate regulatory option and our proposed remedies for the wholesale AISBO markets in the Hull area?

6.81 In Sections 3, we have reviewed the product market definition for wholesale very high bandwidth TISBO, and are now proposing to define separate product markets for wholesale very high 155 Mbit/s TISBO and wholesale very high bandwidth 622 Mbit/s TISBO. In Section 4, we further propose to define separate geographic markets in the CELA, the Hull area and the UK excluding the Hull area for the provision of very high bandwidth 155 Mbit/s TISBO. For the provision of very high bandwidth 622 Mbit/s TISBO, we are proposing to define separate geographic markets in the Hull area and the UK excluding the Hull area.

6.82 In the Hull area, we have found KCOM to have SMP for the provision of very high bandwidth 155 Mbit/s TISBO. In the wholesale very high bandwidth 622 Mbit/s TISBO markets, we are proposing to find no operator with SMP in the Hull area. We do not therefore discuss remedies for this market.

6.83 Below we set out a summary of our January 2008 proposals, and discuss the respondents' views on our proposed remedies. We then review the regulatory options available and discuss the appropriate level of remedies that should apply to KCOM as a result of the proposed SMP finding.

Wholesale very high bandwidth 155 Mbit/s TISBO market in the Hull area

Summary of January 2008 proposals

Current regulatory obligations on KCOM

6.84 KCOM is currently subject to the following wholesale remedies in the markets for low and high bandwidth TISBO in the Hull area, comprising of circuits of speeds up to 155 Mbit/s:

- general access obligation to supply wholesale products upon request;
- requirement not to unduly discriminate;
- cost orientation and accounting separation;
- requirement to publish a reference offer; and
- requirement to publish technical information.

Options assessment

6.85 The regulatory options considered in the January 2008 consultation were:

- No regulation;
- Status quo;
- Variations and additional measures, including accepting a voluntary undertaking from KCOM not to increase the prices of its low bandwidth, high bandwidth and very high bandwidth TISBO services more quickly than the general rate of price inflation (RPI+0%) for a period of four years following publication of the statement which sets out the conclusions of this market review.

6.86 We then considered the potential impact on stakeholders and concluded that an approach based broadly on the existing regime with the adoption of the proposed voluntary undertaking proposed by KCOM, best met our objectives.

6.87 On the basis of our assessment, we concluded that the appropriate action was to maintain the existing regime and to complement it by accepting KCOM's voluntary undertaking.

Proposed Remedies

6.88 In the January 2008 consultation, we proposed the following remedies for the wholesale very high bandwidth TISBO market in Hull, comprising of circuits of speeds above 155 Mbit/s:

- General access obligation to supply wholesale products upon request;
- No undue discrimination;
- Cost orientation;
- Requirement to publish a reference offer;

- Requirement to publish technical information; and

- Accepting KCOM's proposed voluntary undertaking from KCOM not to increase the prices of its low bandwidth, high bandwidth and very high bandwidth TISBO services more quickly than the general rate of price inflation (RPI+0%) for a period of four years following publication of the statement which sets out the conclusions of this market review.

6.89 Paragraph 8.408 of the January 2008 consultation has a discussion of how we thought the proposed remedies met the Communications Act tests.

Responses to the January 2008 consultation and Ofcom's response

6.90 In its response, KCOM opposed the proposed wholesale regulation for TISBOs in Hull on the grounds that they are disproportionate, and because KCOM has not abused its significant market power.

6.91 Ofcom believes that KCOM has not provided new evidence against the proposed SMP finding, and we have in the SMP assessment section confirmed our initial finding of SMP. In the presence of market power, Ofcom is required under the regulatory framework to impose appropriate remedies on the relevant undertakings. In discussing the appropriate level for remedies in the January 2008 consultation, Ofcom had regard to the issue of proportionality. We also proposed to accept a voluntary undertaking from KCOM on the pricing of wholesale TISBO products at all bandwidths. We believe that our original proposals are proportionate in that our proposed approach minimises the regulatory burden on KCOM while addressing the competitive concerns arising from its SMP position in these markets.

Review of the assessment of regulatory options

6.92 We believe our original assessment of the appropriate regulatory options is still valid. When we reviewed the market in the January 2008 consultation, we only found circuits of 155 Mbit/s being sold, and no 622 Mbit/s circuit. The market conditions were therefore the same as the newly defined market for very high bandwidth 155 Mbit/s TISBO. For a full discussion we refer to paragraphs 8.370 to 8.391 of the January 2008 consultation.

6.93 On that basis, we confirm that our preferred option remains to impose some regulatory obligations on KCOM while accepting a set of voluntary undertakings from KCOM to address supply and pricing of TISBO products at all bandwidths.

Conclusions

6.94 Having considered the respondents comments to our proposals, and having confirmed our assessment of the appropriate option, we believe that the analysis of what remedies should apply as set out in paragraphs 8.392 to 8.406 of the January 2008 consultation still applies.

6.95 Ofcom therefore proposes that KCOM should be subject to the following obligations in the markets for wholesale very high bandwidth 155 Mbit/s TISBO in the Hull area:

- a general access obligation to supply wholesale products upon request;

- a requirement not to unduly discriminate;

- a requirement to publish a reference offer; and
- a requirement to publish technical information.

6.96 We also propose to accept KCOM's voluntary undertaking not to increase prices for its wholesale 155 Mbit/s TISBO product by more than RPI+0% for four years from the entering into force of the new regulatory framework for leased lines. If KCOM were to fail to adhere to its voluntary undertaking, cost orientation and accounting separation conditions would come into effect. A detailed discussion of the voluntary undertakings offered by KCOM is in the January 2008 consultation at paragraphs 8.383 – 8.390.

6.97 With respect to interconnection services in support of wholesale TISBO services, in the January 2008 consultation we set out our proposals for continuing with the current regulatory approach of no ex ante regulation. We have received no comments to our proposals in this area. This second consultation gives stakeholders a second chance to consider our proposals in this area.

Account taken of the ERG Wholesale Leased Lines Common Position

6.98 In accordance with ERG's Statement of 12 October 2006[35], while ERG Common Positions are not binding, ERG members must take the utmost account of them. Table 6.2 below summarises how Ofcom has taken into account the ERG Wholesale Leased Lines Common Position, referred to in paragraph 6.16 above, in proposing the regulatory remedies for this market.

Table 6.2 Account taken of the ERG Wholesale Leased Lines Common Position

Objective of remedy	Account taken by Ofcom
Assurance of supply	The requirement to provide Network Access on reasonable request should provide competitors with reasonable certainty of ongoing supply of wholesale leased lines in order to give them confidence to enter the market.
Level playing field	The requirement not to unduly discriminate, together with the Discrimination Guidelines, should ensure that entrants will be able to compete on a level playing field.
Avoidance of unfair first-mover advantage	The requirement not to unduly discriminate, together with the Discrimination Guidelines, should ensure that there is no unfair first-mover advantage.
Transparency of terms and conditions	The requirement to publish a Reference Offer and the requirement to notify charges, terms and conditions in advance should provide clarity of terms and conditions of wholesale leased lines.
Reasonableness of technical parameters of access	The requirement to publish a Reference Offer and the requirement to publish technical information ensure that the technical parameters of access are reasonable.
Fair and coherent access pricing	The cost orientation obligation and the

[35] ERG(06)51.

	voluntary undertaking proposed by KCOM should guarantee competitors that prices for wholesale leased lines in the Hull area gives the appropriate incentives for efficient investment decisions to both the SMP operator and its competitors.
Reasonable quality of access products	The requirement not to unduly discriminate, together with the Discrimination Guidelines and the requirement to publish a Reference Offer should ensure that access products are of reasonable quality.

Communications Act tests

6.99 Section 47(2) of the Communications Act requires regulatory obligations to be justifiable, non-discriminatory, proportionate and transparent. The regulatory obligations which Ofcom proposes in this document to apply to KCOM are consistent with this requirement. They are justifiable in that they relate to the need identified to ensure competition develops fairly and to the benefit of consumers. They do not discriminate against KCOM in that KCOM is the only SMP provider in this market. They are proportionate in that, without these obligations, KCOM could exploit its SMP to harm competition by withdrawing the provision of such services or supplying them only in a way which placed competitors at a disadvantage, and in that they take account of the voluntary undertakings which KCOM has given. They are transparent in that they are set of clearly in Annex 7, and their justification is clearly explained in this document.

Question 11: Do stakeholders agree with our assessment of the appropriate regulatory option and our proposed remedies for very high bandwidth 155 Mbit/s TISBO in the Hull area?

Cost accounting and accounting separation obligations

6.100 BT and KCOM are currently subject to cost accounting and accounting separation requirements in a range of markets in which they have been found to have SMP, including the leased lines markets covered by the 2003/04 Review. Those requirements were set out in a Statement issued in July 2004 (the 2004 Statement on Regulatory Reporting)[36].

6.101 Under the existing framework, BT and KCOM are required to produce a range of outputs, the purpose of which is to support compliance with no undue discrimination and cost orientation obligations in SMP markets. Those outputs include the following:

- Generic cost orientation & non-discrimination requirements:
  - Preparation of a variety of financial statements;
  - Preparation of extensive supporting documentation explaining how the financial statements have been put together;
  - Provision of an independent assurance statement;

[36] http://www.ofcom.org.uk/consult/condocs/fin_reporting/fin_report_statement/

- Publication of most of the information; and
- Preparation of reconciliation statements;

- Cost orientation specific requirements:
  - Preparation of service level cost data (LRIC and FAC) compared to average charges
  - Preparation of costs of network components used to deliver services
  - Analysis of service cost stack by component

- Non-discrimination specific requirements:
  - Analysis of internal and external sales including volume data.

6.102 The current regulatory accounting framework will provide a robust and consistent basis for BT to report compliance with cost orientation and non-discrimination obligations in the SMP markets identified in this review. The market definitions will determine which services are captured under these reporting obligations.

6.103 BT's 2006/07 regulatory Financial Statements are published on its website together with the detailed supporting documentation that explains the principles applied and basis of preparation[37].

Improving compliance – reporting of non-discrimination in downstream markets

6.104 The main purpose of accounting separation obligations is to separate out the upstream activities (wholesale markets) and downstream activities (retail markets) of vertically integrated operators with SMP in one or more of those markets to demonstrate that it is not acting anti-competitively by leveraging power from SMP markets into other retail markets. The regulatory financial statements include an agreed basis on which transfer charges between markets are calculated. The default position is that these transfer charges are calculated on the basis of prices charges to other operators.

6.105 The accounting separation obligations are intended to answer three key questions in respect of compliance with non-discrimination obligations:

i) Can the operator correctly identify and account for the upstream market/service? This is demonstrated by the preparation of primary financial statements (P&L and mean capital employed);

ii) Can the operator correctly calculate internal transfers and account for them transparently within the upstream and downstream activities? The operator is expected to have systems and processes in place that can accurately record the volumes of internal transactions by type of service matched to the published price list and account for the sales and costs in the relevant upstream/downstream activities;

[37] http://www.btplc.com/Thegroup/Regulatoryinformation/Financialstatements/index.htm

iii) Can the operator correctly identify and account for the downstream activity receiving the charge with sufficient financial data to demonstrate that there is no anti-competitive effect?

6.106 The current regulatory accounting framework does not require explicit reporting of the downstream impact of non-discrimination obligations. However, this review and other regulatory work has shown that the variety and choice of services in these markets combined with some specific transfer charging issues means that more transparency of how wholesale SMP products are consumed in downstream activities is required.

6.107 We propose to consult separately on measures designed to address this issue.

Annex 1

Responding to this consultation

How to respond

A1.1 Ofcom invites written views and comments on the issues raised in this document in relation to the wholesale markets for very high bandwidth 155 Mbit/s TISBO and very high bandwidth 622 Mbit/s TISBO, to be made by **5pm on 12 August 2008**.

A1.2 Ofcom strongly prefers to receive responses as e-mail attachments, in Microsoft Word format, as this helps us to process the responses quickly and efficiently, 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 Please email business.connectivity.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.

Serafino Abate
4th Floor
Competition Division
Riverside House
2A Southwark Bridge Road
London SE1 9HA

Fax: 020 7981 3333

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 Serafino Abate on 020 7783 4559.

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 Final Regulatory Statement for all leased lines markets covered by this review.

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 Vicki Nash, Director Scotland, who is Ofcom's consultation champion:

Vicki Nash
Ofcom
Sutherland House
149 St. Vincent Street
Glasgow G2 5NW

Tel: 0141 229 7401
Fax: 0141 229 7433

Email vicki.nash@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:

To (Ofcom contact):

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 ☐

Whole response ☐

Part of the response ☐

Name/contact details/job title ☐

Organisation ☐

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

A4.1 In conducting the review of the wholesale markets for very high bandwidth 155 Mbit/s TISBO and very high bandwidth 622 Mbit/s TISBO, we have identified a set of key questions we would like stakeholders to consider. These questions are listed below:

Question 1: Do stakeholders agree with our retail market definition proposals? In particular, do you agree with our proposal to define separate product markets for traditional interface ('TI') retail leased lines - 155 Mbit/s services and traditional interface ('TI') retail leased lines - 622 Mbit/s services?

Question 2: Do respondents agree with our proposal to identify separate markets for very high bandwidth TISBO at speeds above 45 Mbit/s and up to and including 155 Mbit/s ("TISBO 155 Mbit/s"); and wholesale very high bandwidth TISBO at speeds above 155 Mbit/s ("622 Mbit/s TISBO")?

Question 3: Do you agree with our proposed wholesale geographic market definition for the wholesale very high bandwidth 155 Mbit/s TISBO market? In particular, do you agree with Ofcom that a separate geographic market exists in the UK for wholesale very high bandwidth 155 Mbit/s TISBO services in the Central and East London Area (CELA)?

Question 4: Do you agree with our proposed wholesale geographic market definition for the revised wholesale very high bandwidth 622 Mbit/s and above TISBO market that this market is national in scope?

Question 5: Do stakeholders agree with our assessment of SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the UK excluding CELA and the Hull area?

Question 6: Do stakeholders agree with our assessment of no SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the CELA?

Question 7: Do stakeholders agree with our assessment of no SMP in the wholesale very high bandwidth 622 Mbit/s TISBO market in the UK excluding the Hull area?

Question 8: Do stakeholders agree with our assessment of SMP in the wholesale very high bandwidth 155 Mbit/s TISBO market in the Hull area?

Question 9: Do stakeholders agree with our assessment of no SMP in the wholesale very high bandwidth 622 Mbit/s TISBO market in the Hull Area?

Question 10: Do stakeholders agree with our assessment of the appropriate regulatory option and our proposed remedies for very high bandwidth 155 Mbit/s TISBO in the UK excluding the CELA and the Hull area?

Question 11: Do stakeholders agree with our assessment of the appropriate regulatory option and our proposed remedies for very high bandwidth 155 Mbit/s TISBO in the Hull area?

Annex 5

List of respondents to the January 2008 consultation

- BT
- Cable & Wireless (C&W)
- Communication Management Association (CMA)
- COLT
- Energy Networks Association (ENA)
- Exponential-e
- European Commission (EC)
- KCOM
- Mobile Broadband Network Limited (MBNL)
- 02
- Scottish & Southern
- Spitfire
- UKCTA
- Welsh Government Assembly (WGA)
- 6 respondents provided a confidential response

Ofcom has received 3 email/webmaster responses form Hull residents.

Annex 6

Geographic analysis

Introduction

A6.1 This Annex sets out the detail of our geographic analysis. It:

- explains the methodology we have adopted for our network reach analysis;
- presents the results of our network reach analysis for different build distances; and
- presents the results of our network reach analysis for different metropolitan areas.

Network reach analysis methodology

A6.2 We have adopted the same network reach analysis methodology as in the January 2008 consultation. This analysis seeks to identify the number of operators in a postal sector that is able to potentially supply the representative customer. This is done by making assumptions of the threshold for build distance from the operator's 'flex point' (see below). The result of this analysis is the average number of operators per business location in each postal sector. The network reach analysis is the same for each product market as operators can provide all of the relevant services from each of the flex points and we are unable to distinguish between business sites that may demand particular types of services, although the economic build distance is likely to be shorter for low bandwidth circuits as these circuits are of lower value. Therefore the results of our network reach analysis set out below for the wholesale low bandwidth TISBO market are common for all of the markets which we consider.

A6.3 A flexibility point is a point on an existing network where new fibre can be added in order to connect it to end-users. Flexibility points may well be buildings where fibre terminates on an Optical Distribution Frame or underground chambers where the fibre can be accessed, where ducts meet at a junction (etc). The fibre in the ground/duct would have to be added to by fibre-splicing and duct dug in order to connect an end-user premise to the fibre optic cabling.

A6.4 We have used the Experian Business Database dataset to identify location of large businesses in the UK. This database was used to identify all of the locations of businesses where the number of employees across the business is more than 250 as we consider these business types to be most likely to have demand for leased lines services. There are around 154,000 such sites in the UK. We have then compared this information to the location of the other operators' flex points. It is then possible to calculate the number of operators that are able to offer services to businesses in each postal sector.

A6.5 An important assumption that we use in this analysis is the build distance, which is the assumed distance that an operator would build out from their network in order to provide services to end users/customers. The base-case build distance assumption that we used in our analysis in the January 2008 consultation document was 250m. This 250m build assumption was informed by consideration of the responses

received to our Disaggregated Markets discussion document of March 2006 and the costs associated with digging access.

A6.6 In our Disaggregated Markets discussion document our network reach analysis was conducted on a slightly different basis. In that discussion document we assessed build distances from OCPs points of presence (PoPs), with the assumed build distance being 500m. However, responses to that discussion document led us to revise some of the details to our network reach analysis for the January 2008 consultation.

A6.7 One element of our analysis which we revised was the use of OCPs network flex points rather than their PoPs from which to conduct the network reach analysis. This change was driven by two main considerations. The first was that it became evident from the responses that OCPs use different definitions of PoPs, which introduces risks of erroneous outcomes from network reach analysis conducted on that basis. The second was that PoPs are not as relevant as flex points when it comes to OCPs deciding whether to build out to a new customer. In light of this, we have used the location of OCPs flex points as the geographic location from which to conduct our network reach analysis.

A6.8 The second element of our analysis which we revised for the January 2008 consultation was the assumed economic build distance. Many respondents to the Disaggregated Markets discussion document argued that our assumption of 500m was far too long. This, together with the fact that we were using flex points, which are deeper in the network than PoPs led us to revise our economic build assumption downwards. To inform what that build assumption should be for our January 2008 consultation we conducted some cost analysis of different build distances.

A6.9 The cost of fibre, we assumed, was in the range £50 to £135 per metre, which includes the cost of digging duct[38]. This suggested that a build distance in the region of 250m would be economic when compared against the alternative of purchasing the wholesale inputs from BT on regulated terms. In addition, for high bandwidth TISBO services, the geographic area identified as relatively contestable from this assumption was generally highly correlated with the geographic area in which we had identified BT to have relatively low local service shares. However, as noted in section 6, we received a number of responses to the January 2008 consultation which questioned the validity of this build distance assumption, with respondents expressing a view that the economic build assumption would be significantly lower than 250m. In this section of the annex we explore different build assumptions and other evidence which can inform what the appropriate build distance assumption should be. Beforehand though we set out the steps of the analytical framework.

A6.10 In practical terms there are a number of different steps of the analysis:

- The flex points for each operator (excluding BT) are plotted on a map;
- The locations of businesses with more than 250 employees across the business are also plotted on the map;
- A buffer area of the assumed build distance is drawn around the location of each business; and

[38] See paragraph 7.225 of the January consultation.

- The number of different operators that fall within the assumed build distance buffer area around each location of each business (counting each operator only once) is calculated. This gives the number of operators from which each business location could seek supply, given the build distance assumption. This is illustrated in Table A6.1. In the example below there are 5 business locations in the postal sector each with between 2 and 4 different operators with a flex point within the assumed build distance.

Table A6.1: Example calculation of average number of operators that can serve business sites in a postal sector

	Op1	Op2	Op3	Op4	Op5	Op6	Op7	Op8	Total
Business1	Y	Y	N	N	N	N	Y	Y	4
Business2	Y	N	Y	N	N	N	N	Y	3
Business3	N	N	N	Y	Y	Y	Y	N	4
Business4	N	N	Y	Y	Y	N	N	N	3
Business5	N	N	N	N	N	N	Y	Y	2

A6.11 From this information, the average number of operators per business location in each postal sector can be calculated. This is calculated by summing the number of operators for each business location and dividing through by the number of business locations. For the postal sector in the example above this is 3.2 (16/5).

Network reach analysis for different build distance assumptions

A6.12 We have applied the analytical framework summarised above to a number of different build assumptions. The results of this are shown in the following diagrams for the UK and the CLZ (with the boundary of the CLZ identified by the black boundary line).

Figure A6.1: Network reach analysis with assumed economic build distance of 50m: UK

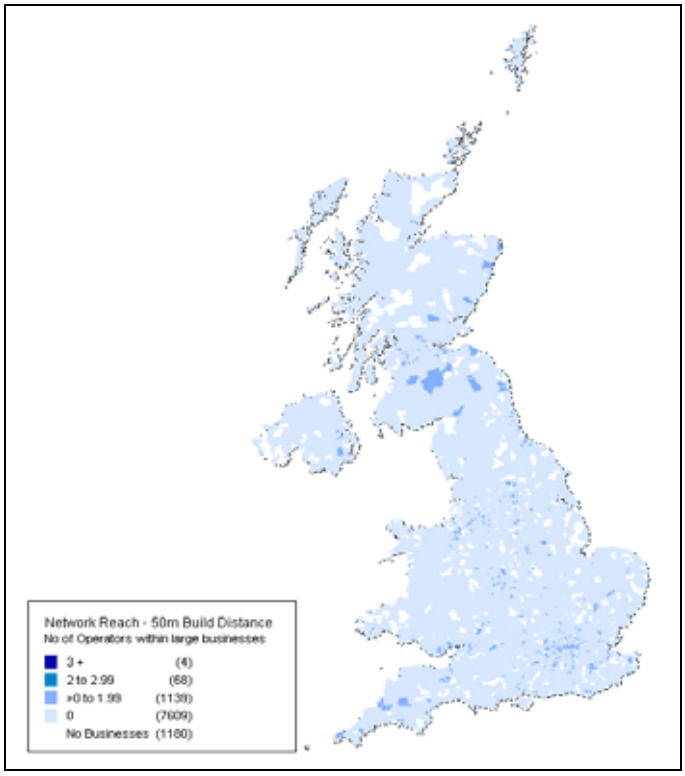


Figure A6.2: Network reach analysis with assumed economic build distance of 50m: CLZ

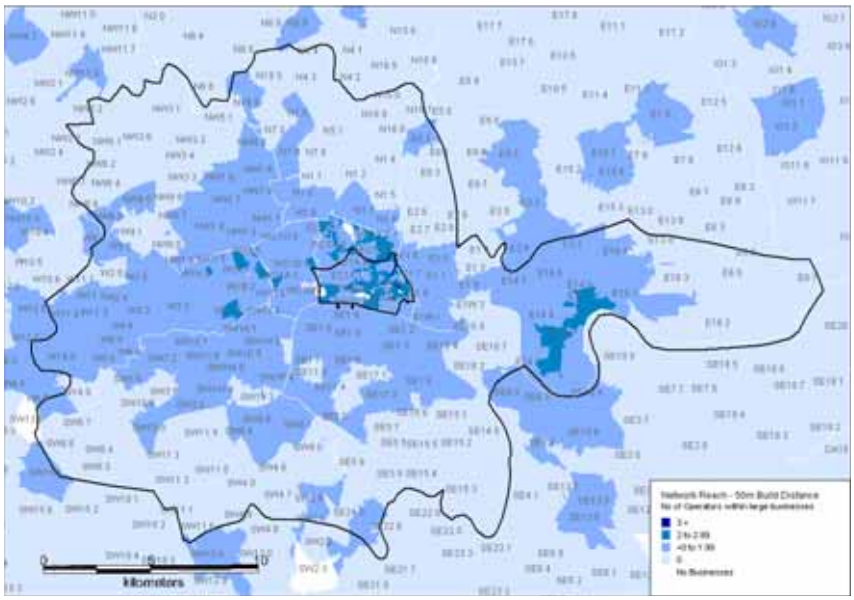


Figure A6.3: Network reach analysis with assumed economic build distance of 100m: UK

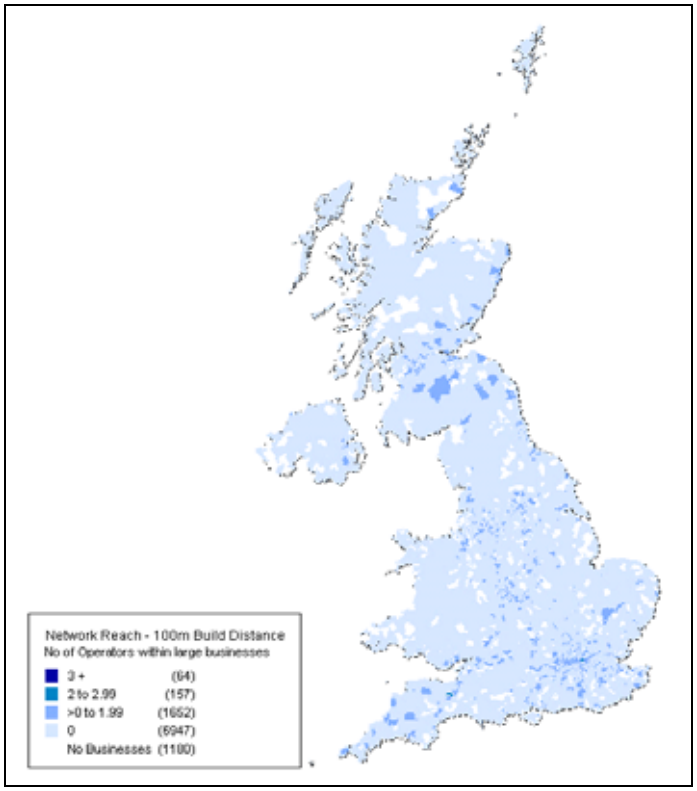


Figure A6.4: Network reach analysis with assumed economic build distance of 100m: CLZ

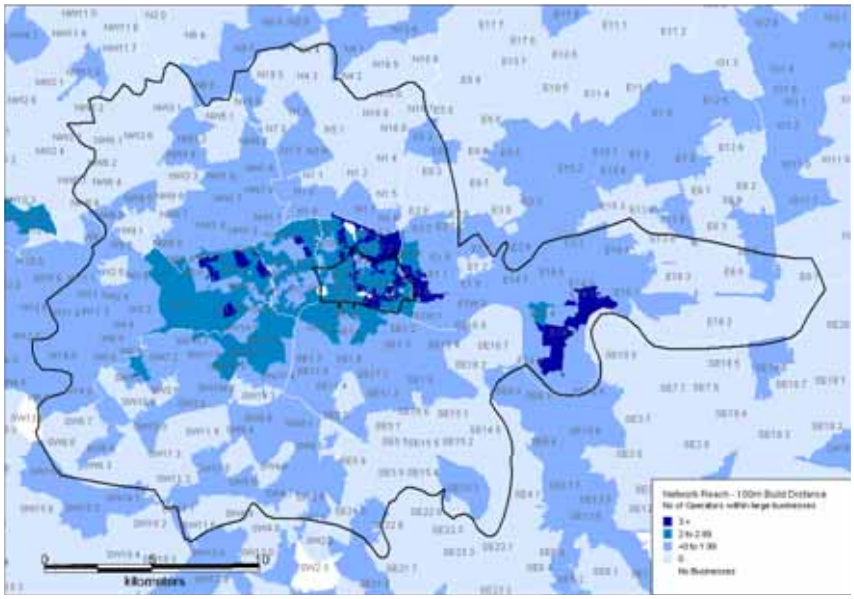


Figure A6.5: Network reach analysis with assumed economic build distance of 150m: UK

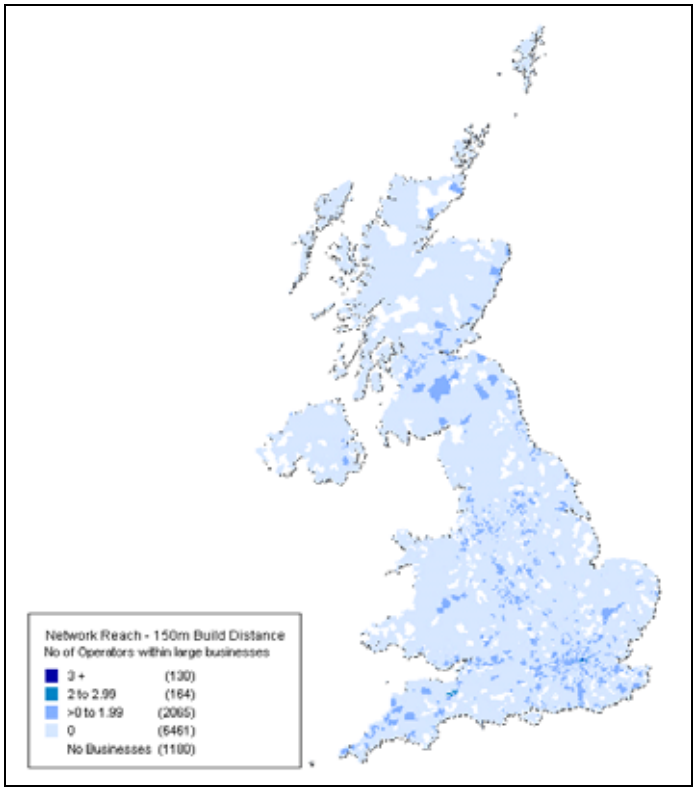


Figure A6.6: Network reach analysis with assumed economic build distance of 150m: CLZ

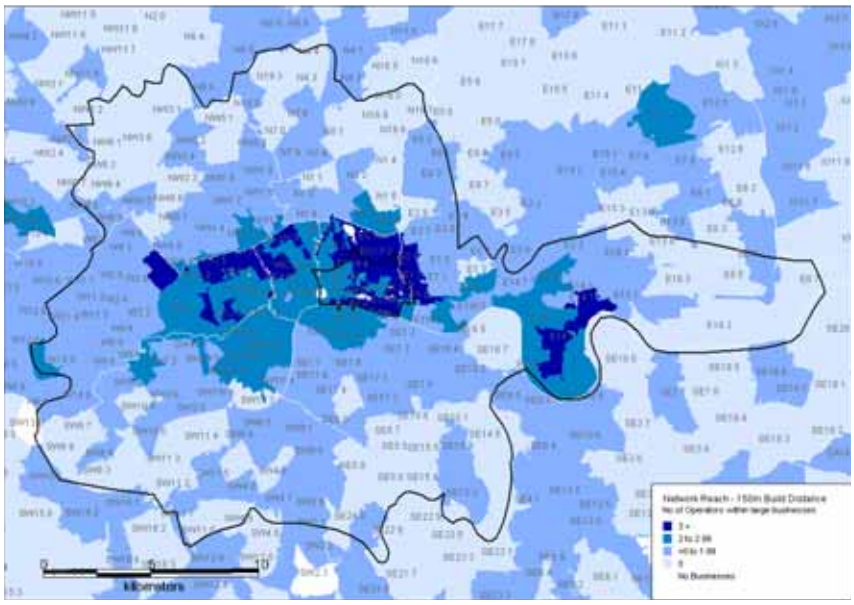


Figure A6.7: Network reach analysis with assumed economic build distance of 200m: UK

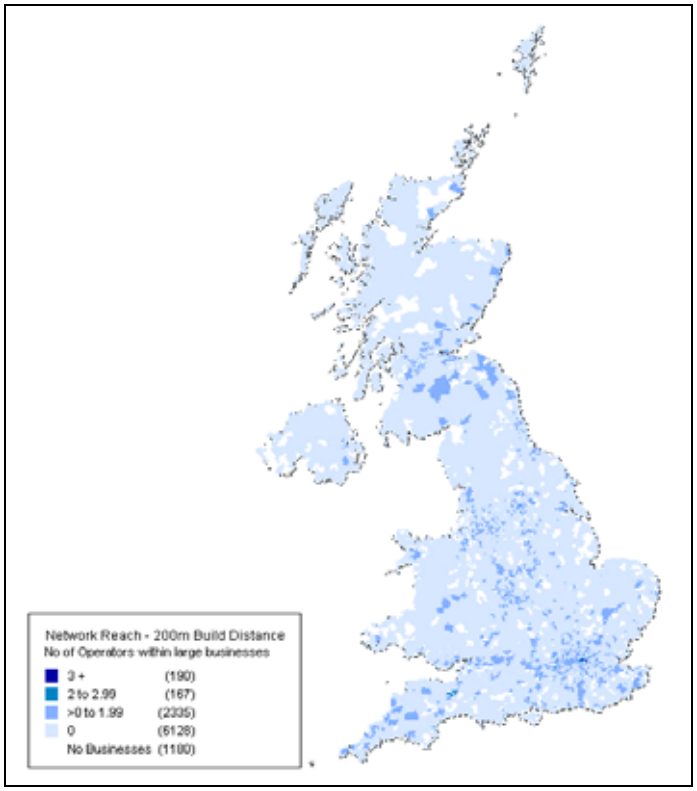


Figure A6.8: Network reach analysis with assumed economic build distance of 200m: CLZ

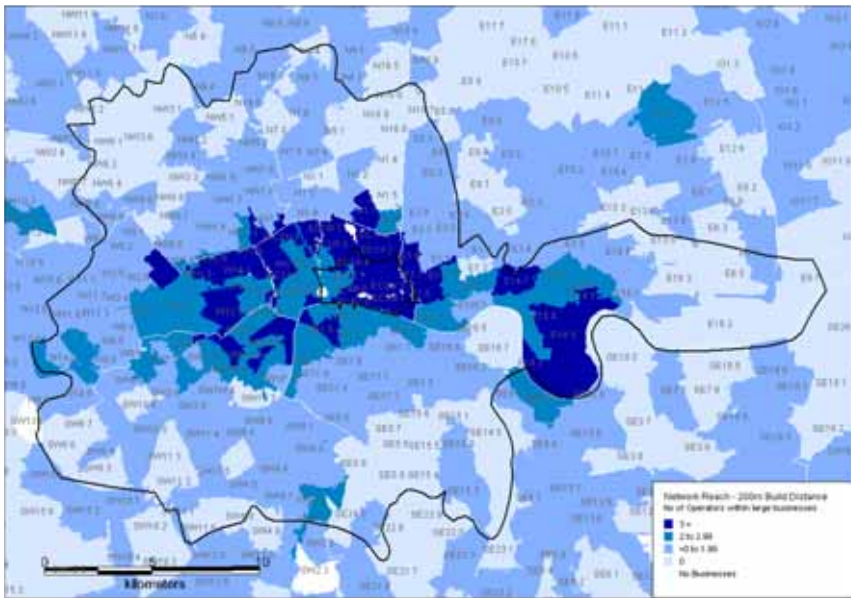


Figure A6.9: Network reach analysis with assumed economic build distance of 250m: UK

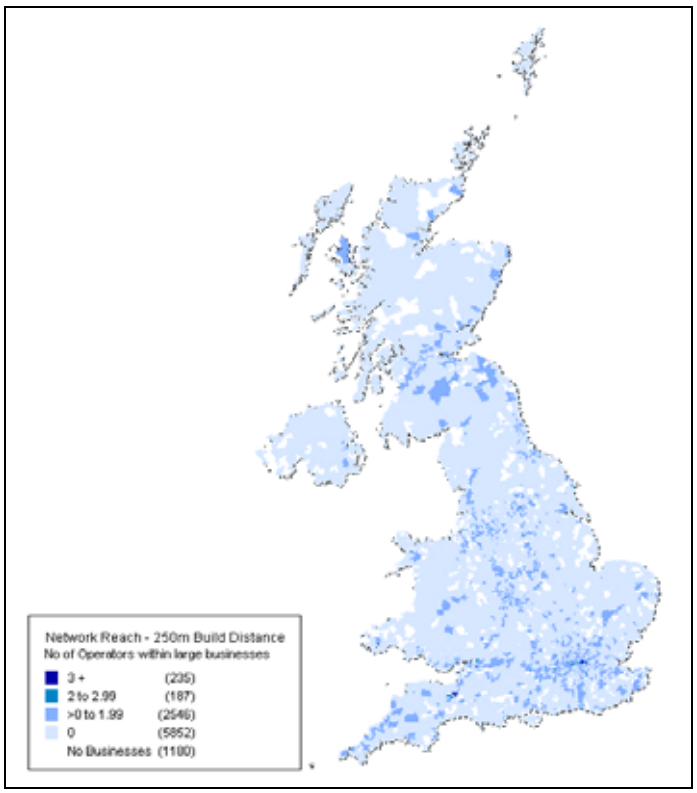
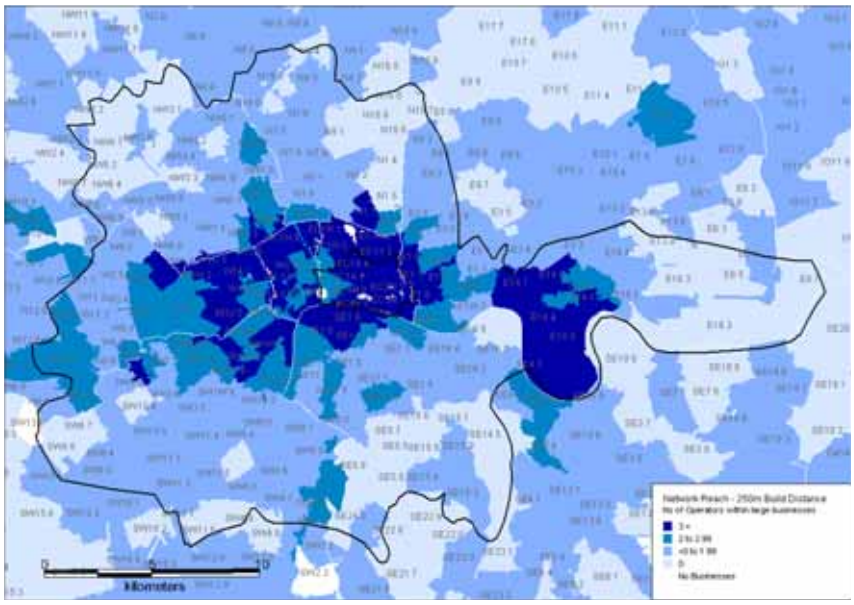


Figure A6.10: Network reach analysis with assumed economic build distance of 250m: CLZ



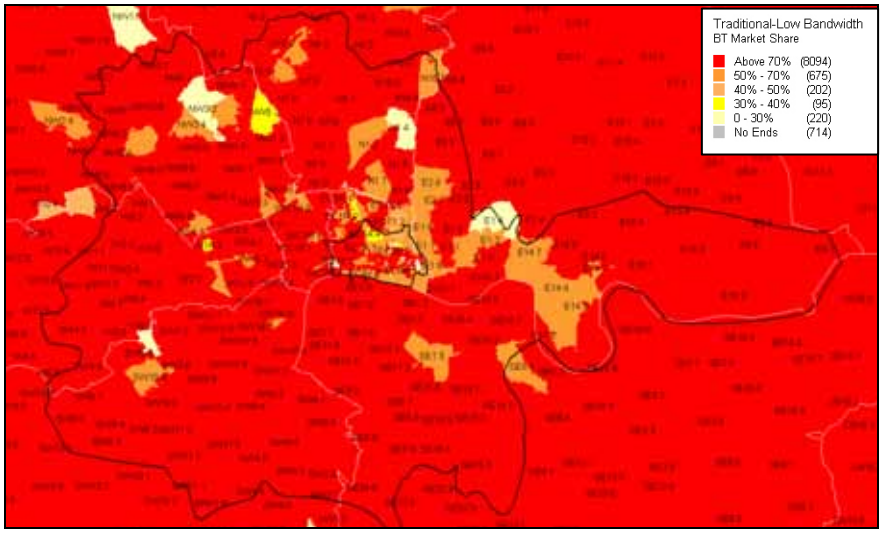
A6.13 The results of this analysis are not surprising: the area shown as contestable expands as the build distance is increased. The question then becomes what is the appropriate build distance assumption. In considering the answer to this question It is important to bear in mind the objective of this part of the analysis, which is to aid the identification of a geographic area (or areas) for each relevant product market in which competitive conditions are sufficiently similar such that similar remedies (if any) should be imposed. As noted in Section 4, this is done in conjunction with

other relevant data. The other relevant data is the local service shares analysis and BT's pricing policies.

A6.14 The output of the local service share analysis is relevant to our consideration of the appropriate build distance as it indicates where there is, in practice, a viable competitive alternative to BT. If the local service share analysis shows that BT has lost a significant share in a local geographic area, this indicates that OCPs have built out their networks in order to provide services to premises in that geographic area. A short build distance assumption would on the other hand suggest that OCPs would not be prepared to build out to business premises in that geographic area. Ths would therefore be inconsistent with the actual observed competitiveness of the area derived form teh local service share analysis.

A6.15 We have produced local service share maps for each of the relevant product markets[39]. We have focussed these on the CLZ area to aid interpretation. These are shown below.

Figure A6.11 – BT's service share in the wholesale low bandwidth TISBO market: CLZ[40]



[39] We have omitted the 622Mbit/s TISBO market and the high bandwidth AISBO market as demand for these circuits is relatively thin.

[40] The legends on Figure A6.10 to A6.14 reading "BT market share" should be read as "BT service share".

Figure A6.12 – BT's service share in the wholesale high bandwidth TISBO market: CLZ

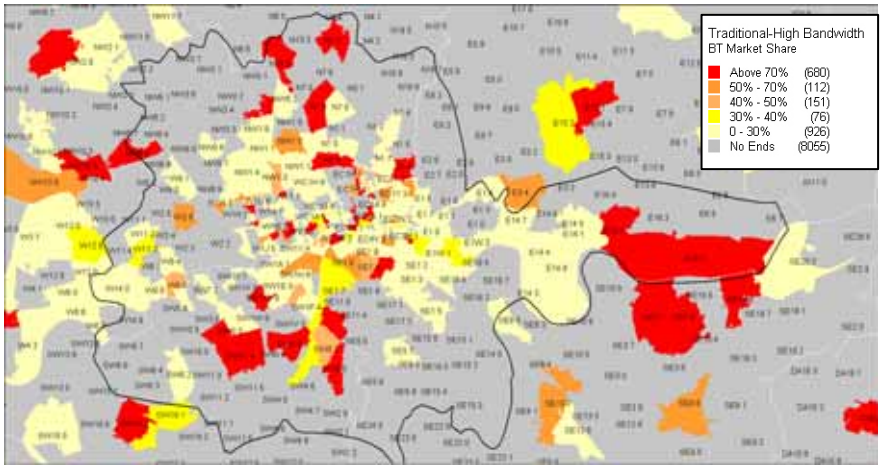


Figure A6.13 – BT's service share in the wholesale very high bandwidth 155Mbit/s TISBO market: CLZ

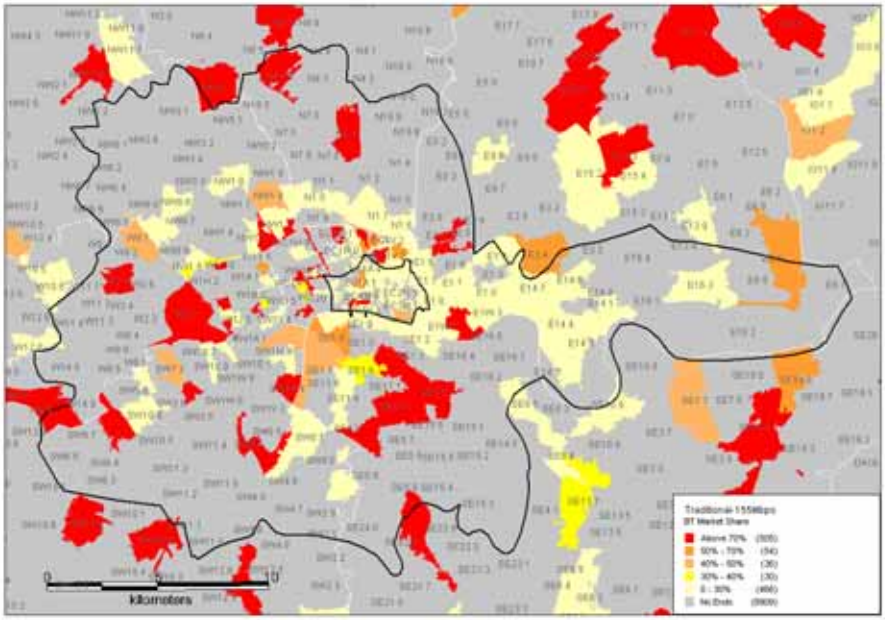
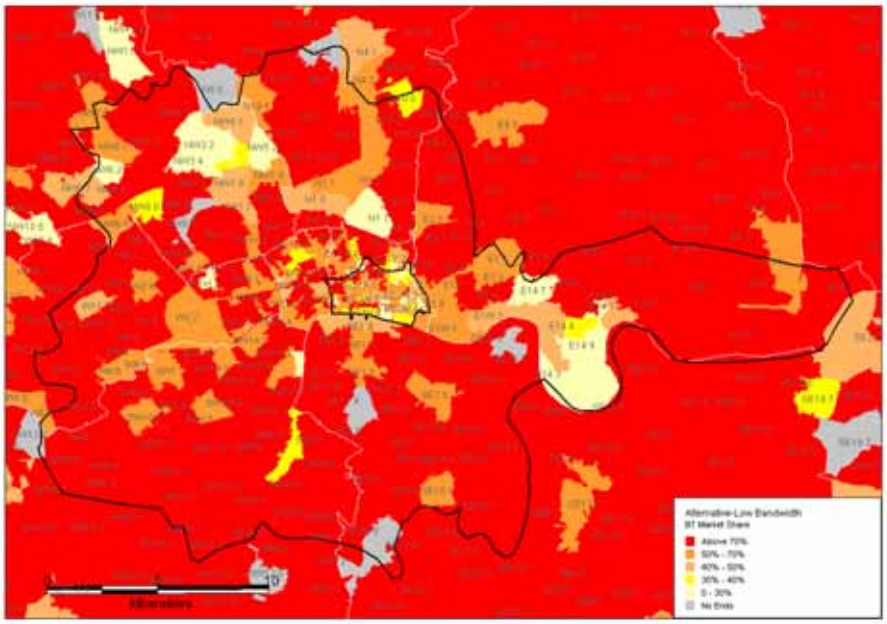


Figure A6.14 – BT's service share in the low bandwidth AISBO market: CLZ



A6.16 These Figures indicate, to differing degrees for the different product markets that there is stronger competition in parts of the CLZ compared to surrounding areas. For the high bandwidth TISBO market, which we proposed to define in the January consultation document as a separate geographic market in the Central and East London Area (CELA) there is a strong overlap between the postal sectors where BT has a low service share and the postal sectors which are more contestable based on an assumed economic build distance of 250m, 200m and perhaps also 150m. This is also true to an extent for the very high bandwidth 155 Mbit/s TISBO and the low bandwidth AISBO service shares. This may indicate that an assumed economic build distance in the range of 150m to 250m would be consistent with the available evidence from our service share analysis. However, to reduce the economic build distance assumption below 150m would not appear to be consistent with the available evidence of the competitive outcomes in the various markets which is shown by the service share analysis. Therefore we do not consider these shorter build distance assumptions further.

Further additional analysis

A6.17 To further inform what the appropriate assumed build distance should be, we have conducted additional analysis to try and provide further evidence which can either be used to support or discount a build distance assumption of either 250m, 200m or 150m. This further analysis involves looking in more detail at the postal sectors which would fall out of the CELA market as the build distance is reduced.

A6.18 In this section we consider how far other indicators of the competitiveness of these sectors, particularly local service share, are consistent with the implications of different build distance assumptions. The local service share analysis of the postal sectors can be used to inform the build distance assumption in the following way. First, if BT has a very high share of the supply of high bandwidth TISBO or very high bandwidth 155 Mbit/s TISBO in these sectors, this will suggest that competing operators have not in practice built out to serve a significant number of businesses located there. A build distance assumption which suggested these were part of a

competitive market could very well be unsafe therefore. On the other hand, a low BT service share would suggest that other operators are able to serve businesses located in these sectors and so is not consistent with a very short build distance assumption which suggests that businesses in those geographic areas have no choice of operator.

A6.19 When the boundary of the CELA is defined on the basis of a 250m build distance, this includes 301 postal sectors, with 5450 business sites. When the assumed build distance is reduced to 200m and 150m, these figures reduce to 289 postal sectors and 5172 business sites and 276 postal sectors and 4882 business sites respectively. This is shown in Table A6.2.

Table A6.2: Impact on changing build distance assumption on postal sectors and business sites in CELA

Build Distance (m)	*No of Postal Sectors in Area*	*Total No of Sites in Area*
250	301	5450
200	289	5172
150	276	4882

A6.20 The postal sectors which would fall outside the CELA market are highlighted by a green border in Figures A6.14 and A6.15 for a 200m and 150m assumed build distance respectively.

Figure A6.15: Postal sectors outside the proposed CELA assuming a 200m build distance

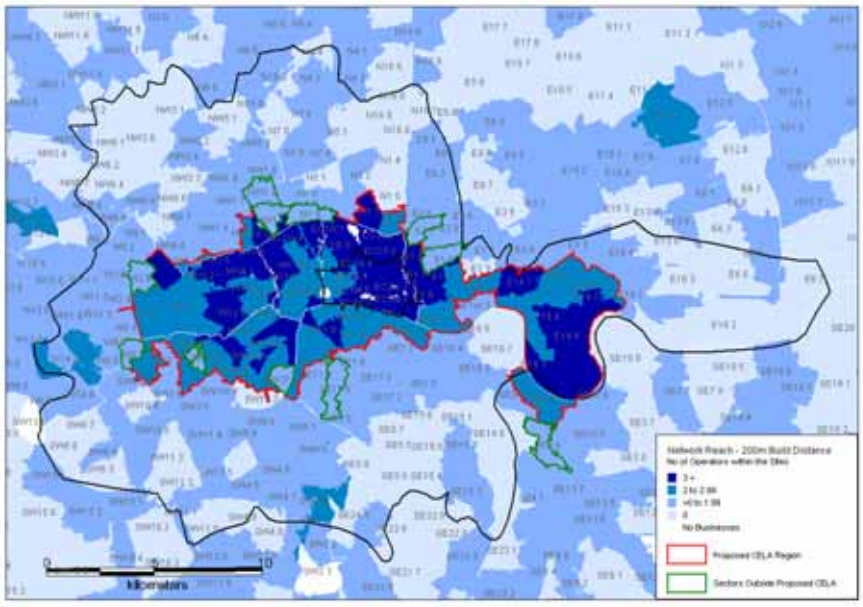
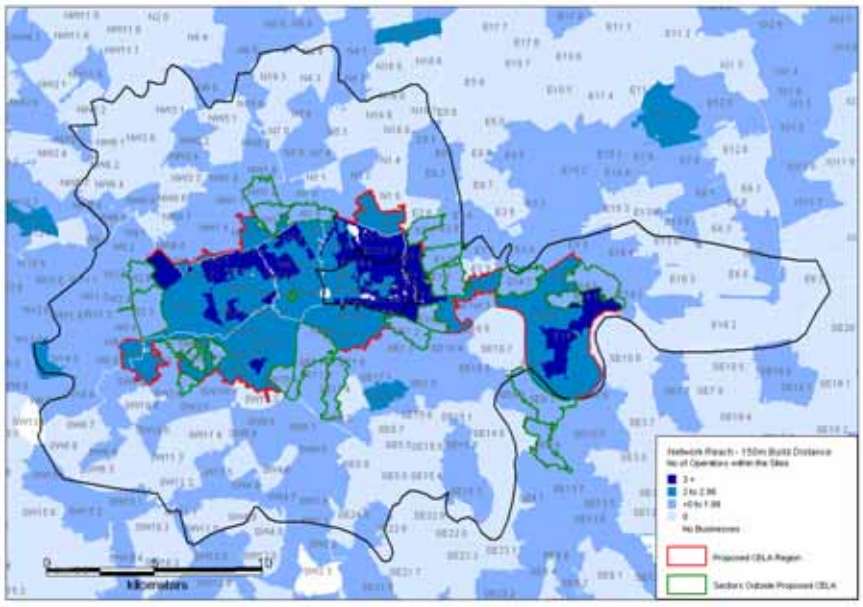


Figure A6.16: Postal sectors outside the proposed CELA assuming a 150m build distance



A6.21 Next we have assessed what the service share information for these postal sectors suggest for the homogeneity of competitive conditions within the CELA market. Tables A6.3 to A6.6 below summarise this information separately for the high bandwidth TISBO market and the 155 Mbit/s TISBO market.

Table A6.3: Local service shares of high bandwidth TISBO circuits for postal sectors which change from CELA to outside of CELA when assumed build distance is changed from 250m to 200m

Postal sector	No of ends	No of BT ends	No of CP ends	BT share
E1 5	0	0	0	No Ends
E2 7	0	0	0	No Ends
N1 9	1	1	0	100%
NW1 0	37	25	12	68%
NW1 1	18	1	17	6%
SE11 4	0	0	0	No Ends
SE8 4	0	0	0	No Ends
SW1P 4	7	1	6	15%
SW1X 0	0	0	0	No Ends
SW3 1	1	0	1	0%
W2 6	6	4	2	66%
W8 5	2	1	1	48%

Table A6.4: Local service shares of high bandwidth TISBO circuits for postal sectors which change from CELA to outside of CELA when assumed build distance is changed from 250m to 150m

Postal sector	No of ends	No of BT ends	No of CP ends	BT share
E1 1	3	0	3	0%
E1 2	0	0	0	No Ends
E1 5	0	0	0	No Ends
E14 0	2	0	2	0%
E14 7	1	0	1	0%
E1W 1	8	0	8	0%
E2 7	0	0	0	No Ends
E98 1	0	0	0	No Ends
N1 9	1	1	0	100%
NW1 0	37	25	12	68%
NW1 1	18	1	17	6%
SE1 2	9	2	7	23%
SE1 7	6	2	4	32%
SE11 4	0	0	0	No Ends
SE8 3	0	0	0	No Ends
SE8 4	0	0	0	No Ends
SW1P 4	7	1	6	15%
SW1X 0	0	0	0	No Ends
SW1X 8	0	0	0	No Ends
SW3 1	1	0	1	0%
SW3 3	2	0	2	0%
SW7 1	0	0	0	No Ends
W2 3	0	0	0	No Ends
W2 6	6	4	2	66%
WC2E 8	0	0	0	No Ends

Table A6.5: Local service shares of wholesale very high bandwidth 155Mbit/s circuits for postal sectors which change from CELA to outside of CELA when assumed build distance is changed from 250m to 200m

Postal sector	No of ends	No of BT ends	No of CP ends	BT share
E1 5	0	0	0	No Ends
E2 7	0	0	0	No Ends
N1 9	0	0	0	No Ends
NW1 0	9	4	5	47%
NW1 1	1	0	1	0%
SE11 4	4	0	4	0%
SE8 4	2	0	2	0%

SW1P 4	1	1	0	100%
SW1X 0	0	0	0	No Ends
SW3 1	0	0	0	No Ends
W2 6	0	0	0	No Ends
W8 5	0	0	0	No Ends

Table A6.6: Local service shares of wholesale very high bandwidth 155Mbit/s circuits for postal sectors which change from CELA to outside of CELA when assumed build distance is changed from 250m to 150m

Postal sector	No of ends	No of BT ends	No of CP ends	BT share
E1 1	1	0	1	0%
E1 2	2	0	2	0%
E1 5	0	0	0	No Ends
E14 0	0	0	0	No Ends
E14 7	1	0	1	0%
E1W 1	18	0	18	0%
E2 7	0	0	0	No Ends
E98 1	0	0	0	No Ends
N1 9	0	0	0	No Ends
NW1 0	9	4	5	47%
NW1 1	1	0	1	0%
SE1 2	3	0	3	0%
SE1 7	2	1	1	48%
SE11 4	4	0	4	0%
SE8 3	0	0	0	No Ends
SE8 4	2	0	2	0%
SW1P 4	1	1	0	100%
SW1X 0	0	0	0	No Ends
SW1X 8	0	0	0	No Ends
SW3 1	0	0	0	No Ends
SW3 3	5	5	0	100%
SW7 1	0	0	0	No Ends
W2 3	0	0	0	No Ends
W2 6	0	0	0	No Ends
WC2E 8	0	0	0	No Ends

A6.22 Taking the wholesale high bandwidth TISBO market first, where there is a greater absolute number of circuits compared to the wholesale very high bandwidth 155Mbit/s TISBO market, the data in the Tables above could suggest that the build

distance should be 200m rather than 150m or 250m. This is because BT's average service share across all of the postal sectors which would be removed from the CELA by moving to a shorter assumed build distance would be 46% in the case of moving to 200m compared to 36% in the case of moving to 150m. As a market share of above 40% is often considered to raise concerns about dominance, the figure of 46% might suggest that BT has SMP in the sectors which are removed from the CELA when the build distance assumption is reduced from 250m to 200m. This service share analysis is therefore most consistent with a build distance assumption which places these areas outside the competitive market area (ie outside the CELA). This suggests that the most appropriate build distance assumption is no more than 200m.

A6.23 By contrast, a figure of 36% suggests that the postal sectors removed from the CELA on the basis of a 150m build distance assumption, when taken as a whole, are more competitive. This suggests that a definition of the CELA based on a build distance of 150m would be likely to result in some postal sectors where there is in fact effective competition being placed in the uncompetitive area (ie outside the CELA) when they should in fact be grouped within the same market as the postal sectors in the CELA. This suggests that the most appropriate build distance assumption is likely to be above 150m. The service share analysis as a whole therefore suggests that the most appropriate assumption is likely to be 200m.

A6.24 The story is similar in the wholesale very high bandwidth 155Mbit/s TISBO market, although the difference in service share is less stark. BT's service share is 29% in the postal sectors, which would be removed from the CELA by moving from a 250m assumed build distance to 200m compared to 22% in the case of moving to a 150m distance.

Information from BT

A6.25 Further evidence which we consider supports an economic build distance assumption of 200m as opposed to 150m is information provided by BT. BT's current policy in practice in relation to deciding whether to build out from an existing flex point to serve a new customer or whether to extend the network further and build a new flex point from which to serve the customer is that if the customer is less than 600m it would build from an existing flex point. However, there are some exceptions to this general policy and practice. These exceptions are to reduce the recommended build distance from a flex point to a new customer for industrial estates and retail parks to 500m, to reduce further to 300m in shopping centres and business parks and to reduce further again to 200m in financial and business districts.

A6.26 We are concerned primarily with the latter of these examples as it is in the CELA which the evidence suggests that a local geographic market exists for wholesale high bandwidth TISBO services and wholesale very high bandwidth 155Mbit/s TISBO services. It is also the case that there does not appear to be any objective reason why alternative operators would not be able to build as far as BT to serve customers, as BT builds to serve customers in financial and business districts.

A6.27 It is notable that the suggested build distances from BT are higher than those suggested by respondents to the January 2008 consultation. A main driver of this difference is likely to be due to the shorter build assumptions suggested by other respondents being based on a build or buy decision in an environment where regulated wholesale inputs are available from BT. We note that such regulated

wholesale inputs would not be available in an unregulated market. In such as scenario OCPs would face a similar build or buy decision to that faced by BT.

Conclusion on assumed economic build distance for our network reach analysis

A6.28 We consider, after fully taking into account of the comments on the issue received in response to the January consultation document, our additional analysis of further alternative network reach distances, postal sector share analysis and information provided by BT that the most appropriate economic build distance assumption for our network reach analysis is 200m. The 289 postal sectors which on this basis of this assumption constitute the CELA are listed in Annex 7.

Network reach analysis for different metropolitan areas

A6.29 BT, in its response to the January 2008 consultation argued that for the high bandwidth TISBO market, separate local markets exist in Birmingham and Manchester and other locations where there exist multiple networks. This part of this Annex sets out our further consideration of the evidence in relation to other areas of the UK.

A6.30 We included in Annex 7 of the January 2008 consultation network reach maps for six cities in addition to those for London. These six cities were Birmingham, Glasgow, Liverpool, Leeds, Sheffield and Edinburgh. This network reach analysis was based on an economic build assumption of 250m. Revised network reach analysis for these cities and Manchester based on our revised network reach analysis of 200m are set out below in Figures A6.17 and following.

Figure A6.17: Network reach analysis based on 200m economic build assumption: Manchester

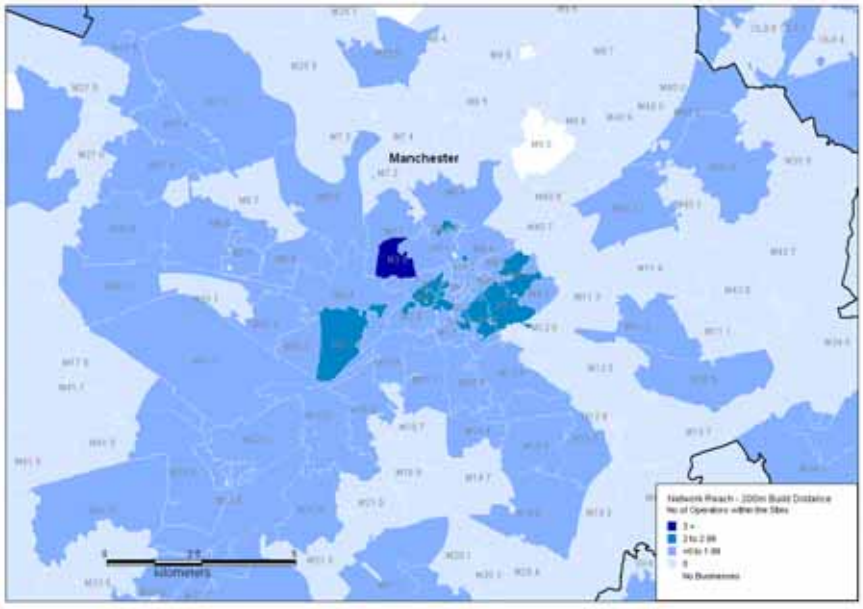


Figure A6.18: Network reach analysis based on 200m economic build assumption: Birmingham

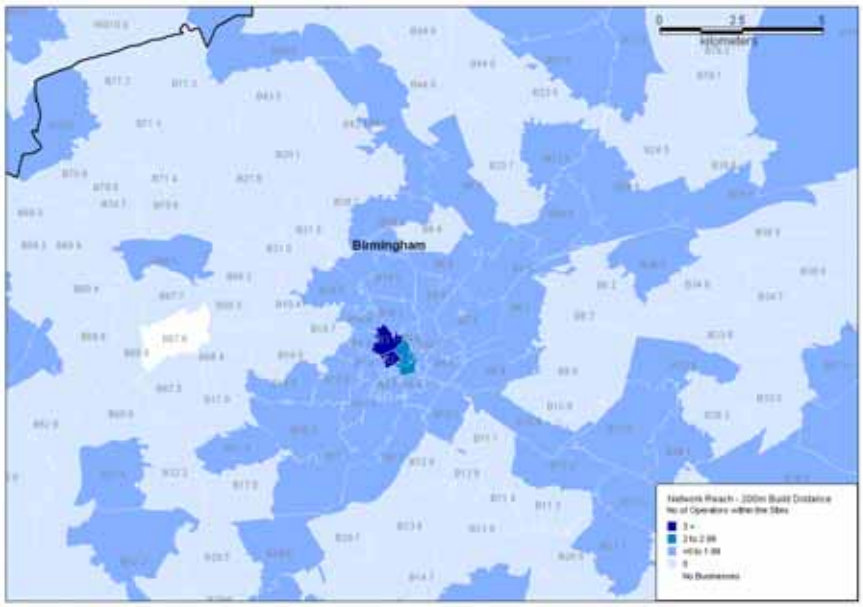


Figure A6.19: Network reach analysis based on 200m economic build assumption: Leeds

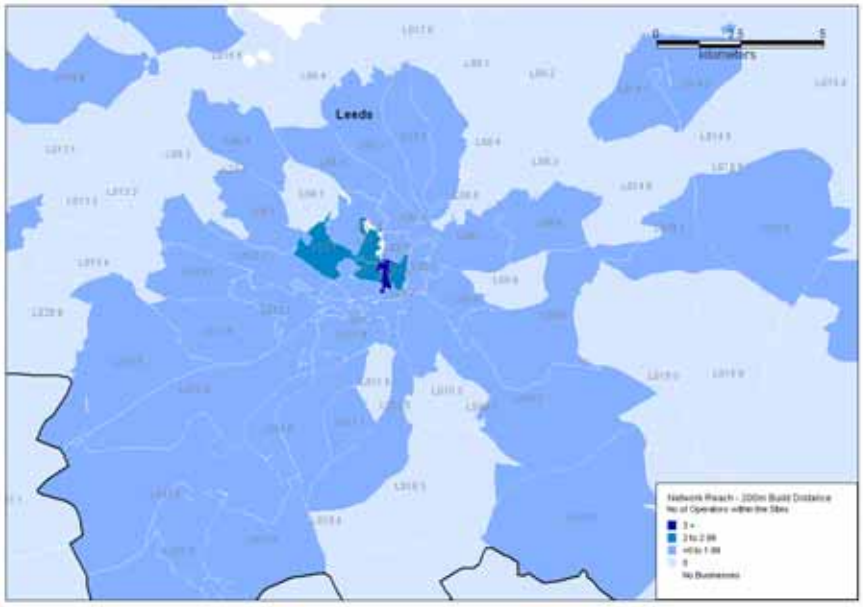


Figure A6.20: Network reach analysis based on 200m economic build assumption: Liverpool

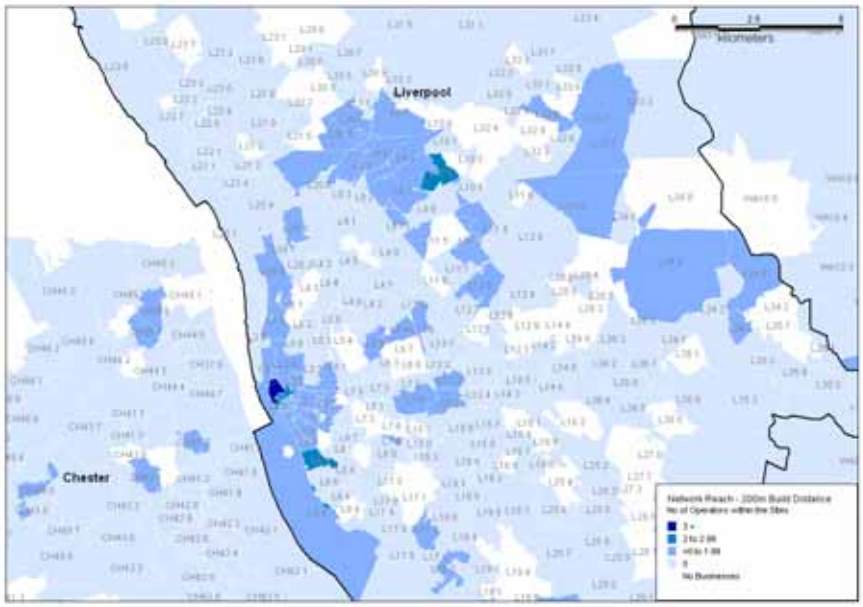


Figure A6.21: Network reach analysis based on 200m economic build assumption: Glasgow

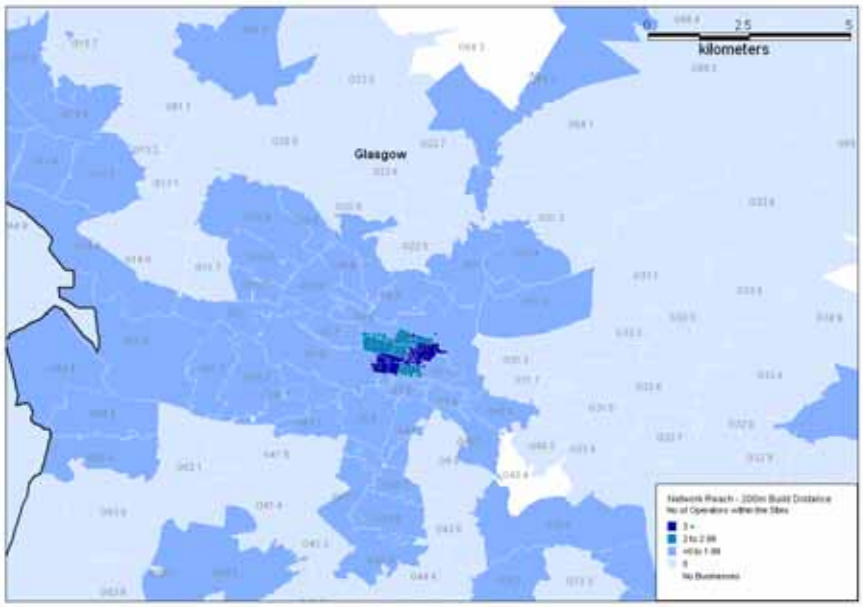
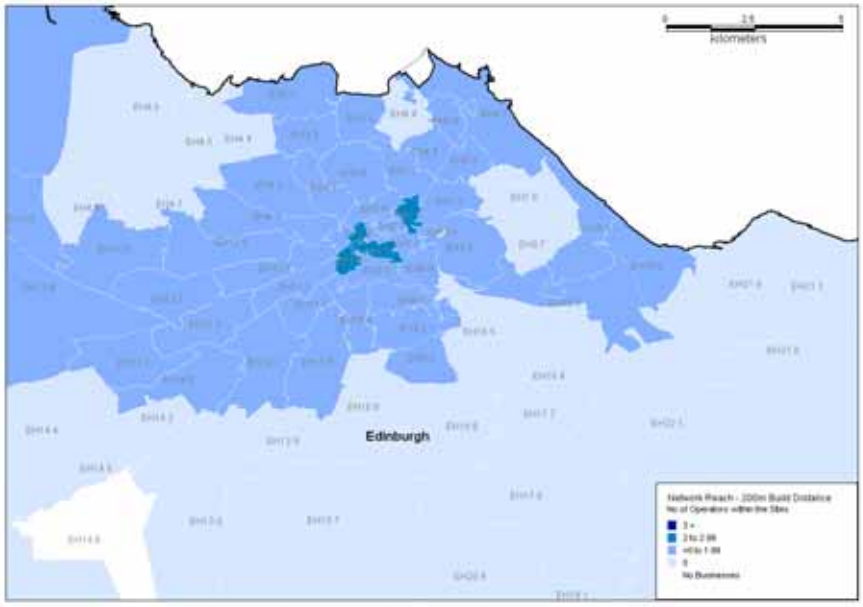


Figure A6.22: Network reach analysis based on 200m economic build assumption: Sheffield

Figure A6.23: Network reach analysis based on 200m economic build assumption: Edinburgh



A6.31 All of these network reach maps show that there is a very limited number of postal sectors in each city where there are two or more alternative operators able to provide services to customers based on an economic build distance assumption of 200m. It is also the case that the absolute number of circuits in each of the relevant markets is generally low within the individual postal sectors in each city in which there could potentially be identified a local market on the basis of the network reach analysis. This suggests that the geographic coverage of any greater constraints that may exist in these cities is likely to be more limited than is the case in the CELA market. This is because any separate local market would cover a much lower number of postal sectors and a much lower number of business premises.

A6.32 It is of course also the case that BT, in these cities continues to price its products in the wholesale high bandwidth TISBO market and the wholesale very high bandwidth 155Mbit/s TISBO market on an averaged price across the whole of the rest of the UK (excluding the CLZ). This means that there is a common pricing constraint across the areas where there is alternative infrastructure and where there is not alternative infrastructure. Therefore, to the extent there is differences in competitive constraint, the effect of this constraint is transmitted to other geographic areas where the constraint is weaker. The presence of this common pricing constraint further suggests that areas of these other cities do not constitute separate geographic markets, but part of a broader geographic market.

A6.33 However, that is not to say that this will always remain to be the case. It could be that alternative operators will continue to invest in their networks in these other cities, which could cause any difference in competitive constraint to grow further. We will, in line with our response to the European Commission's comment to us in response to our notification, continue to monitor market developments and the evolution of the competitive situation in order to assess whether different competitive conditions emerge in different geographic areas in the future.

Annex 7

Draft SMP Conditions and Directions

Proposals for the revocation of notifications, the identification of markets, the making of market power determinations, the setting of SMP service conditions, and the setting of Directions under SMP service conditions

NOTIFICATION UNDER SECTIONS 48 (2) AND 80 OF THE COMMUNICATIONS ACT 2003

Proposals for identifying markets, the making of market power determinations and the setting of SMP service conditions in relation to BT and Kingston under section 45 of the Communications Act 2003

1. The Office of Communications ("Ofcom"), in accordance with sections 48 (2) and 80 of the Communications Act 2003 (the "Act") on 17 January 2008 made proposals for identifying markets, making market power determinations and the setting of SMP services conditions by reference to such determinations ("SMP Conditions") as well as Directions under certain SMP Conditions, altogether referred to herein as "the January 2008 proposals".
2. Further to the January 2008 proposals Ofcom hereby now, in accordance with sections 48 (2) and 80 of the Act, makes the following additional proposals for identifying markets, making market power determinations and the setting of SMP Conditions as well as Directions under certain SMP Conditions. These additional proposals complement the January 2008 proposals and are to be read in conjunction with them.
3. Ofcom is proposing to identify the following additional markets for the purpose of making market power determinations:-

   (a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom, but not including the Hull Area and the Central and East London Area; and

   (b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the Hull Area.
4. Ofcom in accordance with section 79 of the Act is proposing to make the following market power determinations in relation to the markets referred to in paragraph 3 above:-

   (a) in relation to the market set out in paragraph 3 (a) above, BT; and

   (b) in relation to the market set out in paragraph 3 (b) above, KCOM.
5. Ofcom is proposing to set SMP Conditions on the persons referred to in paragraphs 4 (a) and (b) above as set out in Schedules 1 and 2, respectively, to this Notification. In addition, Ofcom is currently also considering to propose to set further SMP Condition(s)

in relation to potential charge controls on the person referred to in paragraph 4 (a), but, if proceeding to do so, will issue a separate notification in this regard.

6. Ofcom is proposing to set a Direction under a SMP Condition referred to in paragraph 5 above on the person referred to in paragraph 4 (a) above as set out in Schedule 3 to this Notification.

7. Ofcom is proposing that the SMP Conditions referred to in paragraph 5 and the Direction referred to in paragraph 6 will become effective unless otherwise stated with publication of the [Final Statement].

8. In addition to paragraph 9 of Ofcom's Notification under Sections 48 (2) and 80 of the Communications Act 2003, published on 17 January 2008 Ofcom is further proposing to amend Part 1 of Schedule 1 to the Notification dated 22 July 2004 setting further SMP services conditions on BT in relation to regulatory accounting in respect of various markets by

   (a) Adding a new paragraph 18 with a reference in the first column to be read as "*Provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second up to and including one hundred and fifty five megabits per second within the UK but not including the Hull Area and the Central and East London Area*" [as defined in the Final Statement]; and

   (b) Adding the date of the [Final Statement] in the second column of this new paragraph 18.

9. Ofcom is also proposing to amend Part 2 of Schedule 1 to the Notification dated 22 July 2004 setting further SMP services conditions on BT in relation to regulatory accounting in respect of various markets by renumbering the paragraphs accordingly, starting with paragraph 19.

10. In addition to paragraph 10 of Ofcom's Notification under Sections 48 (2) and 80 of the Communications Act 2003, published on 17 January 2008 Ofcom is further proposing to amend Part 1 of Schedule 1 to the Notification dated 22 July 2004 setting further SMP services conditions on KCOM in relation to regulatory accounting in various markets by

    (a) Adding a new paragraph 12 with a reference in the first column to be read as "*Provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second up to and including one hundred and fifty five megabits per second within the Hull Area*" [as defined in the Final Statement]; and

    (b) Adding the date of the [Final Statement] in the second column of this new paragraph 12.

11. Ofcom is further proposing to amend Part 2 of Schedule 1 to the Notification dated 22 July 2004 setting further SMP services conditions on KCOM in relation to regulatory accounting in various markets by renumbering paragraph 12 as paragraph 13.

12. As set out in paragraph 12 of Ofcom's Notification under Sections 48 (2) and 80 of the Communications Act 2003, published on 17 January 2008 Ofcom continues to propose that the Notification and SMP Conditions set out in Annex D of the *Review of retail leased lines, symmetric broadband origination and wholesale trunk segments markets*, published by OFCOM on 24 June 2003, and any subsequent modifications to the SMP conditions set by those Notifications or any Directions under these SMP Conditions shall be revoked by the Notification of the [Final Statement].

13. The effect of, and Ofcom's reasons for making, the proposals to identify the markets set out in paragraph 3 above and to make the market power determinations set out in paragraph 4 above are contained in the explanatory statement accompanying this Notification.

14. The effect of, and Ofcom's reasons for making, the proposals to set the SMP Conditions set out in Schedules 2 and 3 to this Notification and the effect of, and Ofcom's reasons for making, the proposals to set the Direction under these SMP Conditions as set out in Schedule 4 are contained in the explanatory statement accompanying this Notification.
15. In identifying and analysing the markets referred to in paragraph 3 above, and in considering whether to make the proposals set out in this Notification, Ofcom has taken due account of all applicable guidelines and recommendations which have been issued or made by the European Commission in pursuance of a Community instrument, and relate to market identification and analysis, as required by section 79 of the Act.
16. In making all of the proposals referred to in this Notification Ofcom has considered and acted in accordance with the six Community requirements in section 4 of the Act.
17. Representations may be made to Ofcom about the proposals set out in this Notification and the accompanying explanatory statement by 12 August 2008.
18. Copies of this Notification and the accompanying explanatory statement have been sent to the Secretary of State in accordance with sections 50(1)(a) and 81(1), the European Commission and to the regulatory authorities of every other Member State in accordance with sections 50(3) and 81(3) of the Act.
19. Save for the purposes of paragraph 3 of this Notification and except as otherwise defined in this Notification, words or expressions used shall have the same meaning as in the Act.
20. In this Notification:

    (a) **"BT"** means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries o r holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985, as amended by the Companies Act 1989;

    (b) **"Central and East London Area**" means the area in London consisting of the postal sectors set out in the Appendix to this Notification.

    (c) **"Hull area"** means the area defined as the 'Licensed Area' in the licence granted on 30 November 1987 by the Secretary of State under section 7 of the Telecommunications Act 1984 to Kingston upon Hull City Council and KCOM Group plc;

    (d) **"KCOM"** means KCOM Group plc, whose registered company number is 2150618, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985, as amended by the Companies Act 1989;

    (e) **"United Kingdom"** has the meaning given to it in the Interpretation Act 1978 (1978 c 30); and

Gareth Davies
Competition Policy Director, Ofcom

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

[10 July 2008]

Appendix

List of postal sectors constituting the "Central and East London Area"

E1 0, E1 1, E1 2, E1 5, E1 6, E1 7, E1 8, E14 0, E14 1, E14 2, E14 3, E14 4, E14 5, E14 6, E14 7, E14 8, E14 9, E1W 1, E1W 2, E2 7, E77 1, E98 1, EC1A 1, EC1A 2, EC1A 4, EC1A 7, EC1A 9, EC1M 3, EC1M 4, EC1M 5, EC1M 6, EC1M 7, EC1N 2, EC1N 6, EC1N 7, EC1N 8, EC1R 0, EC1R 1, EC1R 3, EC1R 4, EC1R 5, EC1V 0, EC1V 1, EC1V 2, EC1V 3, EC1V 4, EC1V 7, EC1V 8, EC1V 9, EC1Y 0, EC1Y 1, EC1Y 2, EC1Y 4, EC1Y 8, EC2A 1, EC2A 2, EC2A 3, EC2A 4, EC2M 1, EC2M 2, EC2M 3, EC2M 4, EC2M 5, EC2M 6, EC2M 7, EC2N 1, EC2N 2, EC2N 3, EC2N 4, EC2P 2, EC2R 5, EC2R 6, EC2R 7, EC2R 8, EC2V 5, EC2V 6, EC2V 7, EC2V 8, EC2Y 5, EC2Y 8, EC2Y 9, EC3A 1, EC3A 2, EC3A 3, EC3A 4, EC3A 5, EC3A 6, EC3A 7, EC3A 8, EC3M 1, EC3M 2, EC3M 3, EC3M 4, EC3M 5, EC3M 6, EC3M 7, EC3M 8, EC3N 1, EC3N 2, EC3N 3, EC3N 4, EC3P 3, EC3R 5, EC3R 6, EC3R 7, EC3R 8, EC3V 0, EC3V 1, EC3V 3, EC3V 4, EC3V 9, EC4A 1, EC4A 2, EC4A 3, EC4A 4, EC4M 5, EC4M 6, EC4M 7, EC4M 8, EC4M 9, EC4N 1, EC4N 4, EC4N 5, EC4N 6, EC4N 7, EC4N 8, EC4R 0, EC4R 1, EC4R 2, EC4R 3, EC4R 9, EC4V 2, EC4V 3, EC4V 4, EC4V 5, EC4V 6, EC4Y 0, EC4Y 1, EC4Y 7, EC4Y 8, EC4Y 9, N1 6, N1 7, N1 9, NW1 0, NW1 1, NW1 2, NW1 3, NW1 5, SE1 0, SE1 1, SE1 2, SE1 7, SE1 8, SE1 9, SE11 4, SE8 3, SE8 4, SW1A 0, SW1A 1, SW1A 2, SW1E 5, SW1E 6, SW1H 0, SW1H 9, SW1P 1, SW1P 2, SW1P 3, SW1P 4, SW1V 1, SW1V 2, SW1W 0, SW1W 9, SW1X 0, SW1X 7, SW1X 8, SW1X 9, SW1Y 4, SW1Y 5, SW1Y 6, SW3 1, SW3 2, SW3 3, SW7 1, SW7 4, SW7 5, W1A 1, W1A 2, W1A 3, W1A 9, W1B 1, W1B 2, W1B 3, W1B 4, W1B 5, W1C 1, W1C 2, W1D 1, W1D 2, W1D 3, W1D 4, W1D 5, W1D 6, W1D 7, W1F 0, W1F 7, W1F 8, W1F 9, W1G 0, W1G 6, W1G 7, W1G 8, W1G 9, W1H 1, W1H 2, W1H 4, W1H 5, W1H 6, W1H 7, W1J 0, W1J 5, W1J 6, W1J 7, W1J 8, W1J 9, W1K 1, W1K 2, W1K 3, W1K 4, W1K 5, W1K 6, W1K 7, W1S 1, W1S 2, W1S 3, W1S 4, W1T 1, W1T 2, W1T 3, W1T 4, W1T 5, W1T 6, W1T 7, W1U 1, W1U 2, W1U 3, W1U 4, W1U 5, W1U 6, W1U 7, W1U 8, W1W 5, W1W 6, W1W 7, W1W 8, W2 1, W2 2, W2 3, W2 6, W8 5, W8 9, WC1A 1, WC1A 2, WC1B 3, WC1B 4, WC1B 5, WC1E 6, WC1E 7, WC1H 0, WC1H 8, WC1H 9, WC1N 1, WC1N 2, WC1N 3, WC1R 4, WC1R 5, WC1V 6, WC1V 7, WC1X 0, WC1X 8, WC1X 9, WC2A 1, WC2A 2, WC2A 3, WC2B 4, WC2B 5, WC2B 6, WC2E 7, WC2E 8, WC2E 9, WC2H 0, WC2H 7, WC2H 8, WC2H 9, WC2N 4, WC2N 5, WC2N 6, WC2R 0, WC2R 1, WC2R 2, WC2R 3,

Schedule 1

[DRAFT] The conditions imposed on British Telecommunications plc under the Communications Act 2003 as a result of the analysis of the market for the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second in which British Telecommunications plc has been found to have significant market power

Part 1: Definitions and Interpretation of these conditions

1. These conditions shall apply to the market for the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second, within the United Kingdom but not including the Hull Area and the Central and East London Area and shall also apply to Interconnection and Accommodation Services.

2. For the purpose of interpreting the conditions imposed on the Dominant Provider following a review of the markets referred to in paragraph 1 the following definitions shall apply:

   "**Act**" means the Communications Act 2003;

   "**Access Charge Change Notice**" has the meaning given to it in Condition GH6;

   "**Accommodation Services**" mean the provision of space on reasonable terms permitting a Third Party to occupy part of an MDF Site reasonably sufficient to permit the use of one or more disaggregated access and backhaul leased lines products, and in particular to permit the connection of the Dominant Provider's Electronic Communications Network with that of a Third Party at that location and having the following characteristics:

   (a) the Third Party's Electronic Communications Network is situated in an area of the MDF Site which:

      (i) is a single undivided space;

      (ii) after proper performance by the Dominant Provider of its obligation to provide Network Access pursuant to Condition GH1, would permit the normal operation of the Third Party's Electronic Communications Network (or would permit if the Dominant Provider removed any object or substance whether toxic or not, which might reasonably prevent or hinder the occupation of the MDF Site for such use); and

      (iii) if so requested by the Third Party, is not unreasonably distant from the Dominant Provider's Electronic Communications Network within the MDF Site;

(b) no permanent physical partition is erected in the space between the Third Party's Electronic Communications Network and the Dominant Provider's Electronic Communications Network; and

(c) the Third Party's Electronic Communications Network is neither owned nor run by the Dominant Provider or by any person acting on the Dominant Provider's behalf;

"**Central and East London Area**" means the area in London consisting of the postal sectors set out in the Appendix to this Notification.

"**Dominant Provider**" means British Telecommunications plc, whose registered company number is 1800000 and any British Telecommunications plc subsidiary or holding company, or any subsidiary of that holding company, all as defined by section 736 of the Companies Act 1985 as amended by the Companies Act 1989;

"**Hull Area**" means the area defined as the 'Licensed Area' in the licence granted on 30 November 1987 by the Secretary of State under section 7 of the Telecommunications Act 1984 to Kingston upon Hull City Council and KCOM Group plc;

"**Interconnection Services**" mean:
- In-Span Handover ("ISH");
- Customer-Sited Handover ("CSH");
- In-Building Handover ("IBH"); and
- ISH extension circuits.

"**MDF Site**" means the site of an operational building of the Dominant Provider that houses a main distribution frame;

"**Network Component**" means to the extent they are used in the Market, or for Interconnection Services, the network components specified in a direction given by Ofcom from time to time for the purpose of these conditions;

"**Reference Offer**" means the terms and conditions on which the Dominant Provider is willing to enter into an Access Contract;

"**The Market**" means the market set out in paragraph 1 above;

"**Third Party**" means a person providing a public Electronic Communications Service or a person providing a public Electronic Communications Network;

"**Transfer Charge**" means the charge or price that is applied, or deemed to be applied, by the Dominant Provider to itself for the use or provision of an activity or group of activities. For the avoidance of doubt such activities or group of activities include, amongst other things, products and services provided from, to or within the Market and the use of Network Components in that Market; and

"**Usage Factor**" means the average usage by any Communications Provider (including the Dominant Provider itself) of each Network Component in using or providing a particular product or service or carrying out a particular activity.

3. Save for the purposes of paragraph 1, except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them and otherwise any word or expression shall have the same meaning as it has in the Act.

4. The Interpretation Act 1978 shall apply as if each of the conditions were an Act of Parliament.

5. Headings and titles shall be disregarded.

Part 2: The conditions

Condition GH1 – Requirement to provide network access on reasonable request

GH1.1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as Ofcom may from time to time direct.

GH1.2 The provision of Network Access in accordance with paragraph GH1.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms and conditions (excluding charges) and on such terms and conditions (excluding charges) as Ofcom may from time to time direct.

GH1.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition GH2 – Requirement not to unduly discriminate

GH2.1 The Dominant Provider shall not unduly discriminate against particular persons or against a particular description of persons, in relation to matters connected with Network Access.

GH2.2 In this Condition, the Dominant Provider may be deemed to have shown undue discrimination if it unfairly favours to a material extent an activity carried on by it so as to place at a competitive disadvantage persons competing with the Dominant Provider.

Condition GH3 – Basis of charges

GH3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition GH1 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

GH3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition GH1 is for a service which is subject to a charge control under Condition GH4, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition GH3.1.

GH3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.

[*Condition GH4 – Charge control*

Ofcom intends to issue a separate notification for its proposals on potential charge controls in this market]

Condition GH5 – Requirement to publish a reference offer

GH5.1 Except in so far as Ofcom may otherwise consent in writing, the Dominant Provider shall publish a Reference Offer and act in the manner set out below.

GH5.2 Subject to paragraph GH5.8 below, the Dominant Provider shall ensure that a Reference Offer in relation to the provision of Network Access includes at least the following:

(a) a description of the Network Access to be provided, including technical characteristics (which shall include information on network configuration where necessary to make effective use of Network Access);

(b) the locations of the points of Network Access;

(c) the technical standards for Network Access (including any usage restrictions and other security issues);

(d) the conditions for access to ancillary, supplementary and advanced services (including operational support systems, information systems or databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing);

(e) any ordering and provisioning procedures;

(f) relevant charges, terms of payment and billing procedures;

(g) details of interoperability tests;

(h) details of maintenance and quality as follows:

(i) specific time scales for the acceptance or refusal of a request for supply and for completion, testing and hand-over or delivery of services and facilities, for provision of support services (such as fault handling and repair);

(ii) service level commitments, namely the quality standards that each party must meet when performing its contractual obligations;

(iii) the amount of compensation payable by one party to another for failure to perform contractual commitments;

(iv) a definition and limitation of liability and indemnity; and

(v) procedures in the event of alterations being proposed to the service offerings, for example, launch of new services, changes to existing services or change to prices;

(i) details of any relevant intellectual property rights;

(j) a dispute resolution procedure to be used between the parties;

(k) details of duration and renegotiation of agreements;

(l) provisions regarding confidentiality of non-public parts of the agreements;

(m) rules of allocation between the parties when supply is limited (for example, for the purpose of co-location or location of masts);

(n) the standard terms and conditions for the provision of Network Access;

(o) the amount applied to:

(i) each Network Component used in providing Network Access with the relevant Usage Factors;

(ii) the Transfer Charge for each Network Component or combination of Network Components described above;

reconciled in each case to the charge payable by a Communications Provider other than the Dominant Provider.

GH5.3 To the extent that the Dominant Provider provides to itself Network Access that:

(i) is the same, similar or equivalent to that provided to any other person; or

(ii) may be used for a purpose that is the same, similar or equivalent to that provided to any other person,

in a manner that differs from that detailed in a Reference Offer in relation to Network Access provided to any other person, the Dominant Provider shall ensure that it publishes a Reference Offer in relation to the Network Access that it provides to itself which includes, where relevant, at least those matters detailed in paragraphs GH5.2(a)-(o).

GH5.4 The Dominant Provider shall, within one month of the date that this Condition enters into force, publish a Reference Offer in relation to any Network Access that it is providing as at the date that this Condition enters into force.

GH5.5 The Dominant Provider shall update and publish the Reference Offer in relation to any amendments or in relation to any further Network Access provided after the date that this Condition enters into force.

GH5.6 Publication referred to above shall be effected by:

(a) placing a copy of the Reference Offer on any relevant website operated or controlled by the Dominant Provider; and

(b) sending a copy of the Reference Offer to Ofcom.

GH5.7 The Dominant Provider shall send a copy of the current version of the Reference Offer to any person at that person's written request (or such parts which have been requested).

GH5.8 The Dominant Provider shall make such modifications to the Reference Offer as Ofcom may direct from time to time.

GH5.9 The Dominant Provider shall provide Network Access at the charges, terms and conditions in the relevant Reference Offer and shall not depart therefrom either directly or indirectly.

GH5.10 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition GH6 – Requirement to notify charges and terms and conditions

GH6.1 Except in so far as Ofcom may otherwise consent in writing, the Dominant Provider shall publish charges, terms and conditions and act in the manner set out below.

GH6.2 Save where otherwise provided in Condition GH8, the Dominant Provider shall send to Ofcom and to every person with which it has entered into an Access Contract covered by Condition GH1, a written notice of any amendment to the charges, terms and conditions on which it provides Network Access or in relation to any charges for new Network Access (an "Access Charge Change Notice") not less than 90 days before any such amendment comes into effect for existing Network Access, or not less than 28 days before any such amendment comes into effect for new Network Access.

GH6.3 The Dominant Provider shall ensure that an Access Charge Change Notice includes:

(a) a description of the Network Access in question;

(b) a reference to the location in the Dominant Provider's current Reference Offer of the terms and conditions associated with the provision of that Network Access;

(c) the date on which or the period for which any amendments to charges, terms and conditions will take effect (the "effective date");

(d) the current and proposed new charge and the relevant Usage Factors applied to each Network Component comprised in that Network Access, reconciled in each case with the current or proposed new charge; and

(e) the information specified in sub paragraph (d) above with respect to that Network Access to which that paragraph applies.

GH6.4 The Dominant Provider shall not apply any new charge, term and condition identified in an Access Charge Change Notice before the effective date.

GH6.5 To the extent that the Dominant Provider provides to itself Network Access that:

(i) is the same, similar or equivalent to that provided to any other person; or

(ii) may be used for a purpose that is the same, similar or equivalent to that provided to any other person,

in a manner that differs from that detailed in an Access Charge Change Notice in relation to Network Access provided to any other person, the Dominant Provider shall ensure that it sends to Ofcom an Access Charge Change Notice in relation to the Network Access that it provides to itself which includes, where relevant, at least those matters detailed in paragraphs GH6.3(a)-(e).

Condition GH7 – Quality of Service

GH7.1 The Dominant provider shall publish all such information for the purposes of securing transparency as to the quality of service in relation to Network Access provided by the Dominant Provider in such manner and form as Ofcom may from time to time direct.

GH7.2 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition GH8 – Requirement to notify technical information

GH8.1 Save where Ofcom consents otherwise, where the Dominant Provider-

(a) proposes to provide Network Access covered by Condition GH1, the terms and conditions for which comprise new-

(i) technical characteristics (including information on network configuration where

necessary to make effective use of the Network Access);

(ii) locations of the points of Network Access; or

(iii) technical standards (including any usage restrictions and other security issues), or

(b) proposes to amend an existing Access Contract covered by Condition GH1 by modifying the terms and conditions listed in paragraph GH8.1(a)(i) to (iii) on which the Network Access is provided,

the Dominant Provider shall publish a written notice (the "Notice") of the new or amended terms and conditions within a reasonable time period but not less than 90 days before either the Dominant Provider enters into an Access Contract to provide the new Network Access or the amended terms and conditions of the existing Access Contract come into effect.

GH8.2 The Dominant Provider shall ensure that the Notice includes-

(a) a description of the Network Access in question;

(b) a reference to the location in the Dominant Provider's Reference Offer of the relevant terms and conditions;

(c) the date on which or the period for which the Dominant Provider may enter into an Access Contract to provide the new Network Access or any amendments to the relevant terms and conditions will take effect (the "effective date").

GH8.3 The Dominant Provider shall not enter into an Access Contract containing the terms and conditions identified in the Notice or apply any new relevant terms and conditions identified in the Notice before the effective date.

GH8.4 Publication referred to in paragraph GH8.1 shall be effected by:

(a) placing a copy of the Notice on any relevant website operated or controlled by the Dominant Provider;

(b) sending a copy of the Notice to Ofcom; and

(c) sending a copy of the Notice to any person at that person's written request, and where the Notice identifies a modification to existing relevant terms and conditions, to every person with which the Dominant Provider has entered into an Access Contract covered by Condition GH1. The provision of such a copy of the Notice may be subject to a reasonable charge.

GH9 - Requests for new Network Access

GH9.1 The Dominant Provider shall for the purposes of transparency publish reasonable guidelines, in relation to requests for new Network Access made to it. Such guidelines shall detail:

(a) the form in which such a request should be made;

(b) the information that the Dominant Provider requires in order to consider a request for new Network Access; and

(c) the time scales in which such requests will be handled by the Dominant Provider in accordance with this Condition.

GH9.2 Such guidelines shall be published within two months of the date that this Condition enters into force following a consultation with Ofcom and Third Parties. The Dominant Provider shall keep the guidelines under review and consult with relevant Third Parties and Ofcom before making any amendments to the guidelines.

GH9.3 The Dominant Provider shall, upon a reasonable request from a Third Party considering making a request for new Network Access, provide that Third Party with information so as to enable that Third Party to make a request for new Network Access. Such information shall be provided within a reasonable period.

GH9.4 On receipt of a written request for new Network Access the Dominant Provider shall ensure that the requirements of this Condition are met. A modification of a request for new Network Access which has previously been submitted to the Dominant Provider, and rejected by the Dominant Provider, shall be considered as a new request.

GH9.5 Within five working days of receipt of a request under paragraph GH9.4, the Dominant Provider shall acknowledge that request in writing.

GH9.6 Within fifteen working days of receipt of a request under paragraph GH9.4 the Dominant Provider shall respond in writing to the requesting Third Party in one of the following ways:

(a) the Dominant Provider shall confirm that the request will be met and shall confirm that the following will be prepared:

(i) the timetable for the provision of the new Network Access;
(ii) an initial offer of terms and conditions for the provision of the new Network Access; and
(iii) the timetable for the agreement of technical issues.

(b) the Dominant Provider shall confirm that a feasibility study is reasonably required in order to determine whether the request made is reasonable and the Dominant Provider shall set out its objective reasons for the need for such a study;

(c) the Dominant Provider shall confirm that the request is not sufficiently well formulated and, where it does so, the Dominant Provider shall detail all of the defects in the request which has been made; or

(d) the Dominant Provider shall confirm that the request is refused on the basis that it is not reasonable and, where it does so, the Dominant Provider shall detail its reasons for refusal.

GH9.7 Where the Dominant Provider responds to a request under paragraph GH9.4 in accordance with paragraph GH9.6(a) it shall, within thirty five working days of receipt of a request under paragraph GH9.4, respond further to the requesting Third Party in writing and:

(i) confirm the timetable for the provision of the new Network Access;
(ii) provide an initial offer of terms and conditions for the provision of the new Network Access; and
(iii) confirm the timetable for the agreement of technical issues.

GH9.8 Where the Dominant Provider responds to a request under paragraph GH9.4 in accordance with paragraph GH9.6(a) and determines, due to a genuine error of fact, that it reasonably needs to complete a feasibility study, it may, as soon as practicable and in any event, within thirty five working days of receipt of a request under paragraph GH9.4, inform the requesting Third Party that a feasibility study is reasonably required and set out its objective reasons for such a study.

GH9.9 Where GH9.8 applies the Dominant Provider shall, within forty five working days from the date that the Dominant Provider informs the requesting Third Party that a feasibility study is reasonably required, respond further to the requesting Third party, in writing, in one of the following ways:

(a) the Dominant Provider shall confirm that the request will be met and shall:

(i) confirm the timetable for the provision of the new Network Access;
(ii) provide an initial offer of terms and conditions for the provision of the new Network Access; and
(iii) confirm the timetable for the agreement of technical issues; or

(b) the Dominant Provider shall confirm that the request is refused on the basis that it is not reasonable and, where it does so, the Dominant Provider shall detail its reasons for refusal. The Dominant Provider shall provide to Ofcom a copy of the feasibility study and shall provide to the requesting Third Party a non-confidential copy of the feasibility study.

GH9.10 The time limit set out in paragraph GH9.9 above shall be extended up to seventy working days from the date that the Dominant Provider informs the requesting Third Party that a feasibility study is reasonably required pursuant to paragraph GH9.8, if:

- circumstances have arisen which, despite the Dominant Provider using its best endeavours, prevent it from completing the feasibility study within forty five working days of the date that the requesting Third Party was informed of the need for a feasibility study pursuant to paragraph GH9.8; or

- the Third Party and the Dominant Provider agree to extend the time limit up to seventy working days.

GH9.11 The time limit set out in paragraph GH9.9 above shall be extended beyond seventy working days from the date that the Dominant Provider informs the requesting Third Party that a feasibility study is reasonably required pursuant to paragraph GH9.8, if:

- Ofcom agrees; or

- the Third Party and the Dominant Provider agree to extend the time limit beyond seventy working days.

GH9.12 Where the Dominant Provider responds to a request under paragraph GH9.4 in accordance with paragraph GH9.6(b) the Dominant Provider shall, within sixty working days of receipt of a request under paragraph GH9.4, respond further to the requesting Third Party, in writing, in one of the following ways:

(a) the Dominant Provider shall confirm that the request will be met and shall:

(i) confirm the timetable for the provision of the new Network Access;
(ii) provide an initial offer of terms and conditions for the provision of the new Network Access; and
(iii) confirm the timetable for the agreement of technical issues; or

(b) the Dominant Provider shall confirm that the request is refused on the basis that it is not reasonable and, where it does so, the Dominant Provider shall detail its reasons for refusal. The Dominant Provider shall provide to Ofcom a copy of the feasibility study and shall provide to the requesting Third Party a non-confidential copy of the feasibility study.

GH9.13 The time limit set out in paragraph GH9.12 above shall be extended up to eighty five working days of receipt of a request under paragraph GH9.4, if:

- circumstances have arisen which, despite the Dominant Provider using its best endeavours, prevent it from completing the feasibility study within sixty working days of receipt of a request under paragraph GH9.4; or

- the Third Party and the Dominant Provider agree to extend the time limit up to eighty five working days.

GH9.14 The time limit set out in paragraph GH9.12 above shall be extended beyond eighty five working days of receipt of a request under paragraph GH9.4, if:

- Ofcom agrees; or

- the Third Party and the Dominant Provider agree to extend the time limit beyond eighty five working days.

GH9.15 Within two months of the date that this Condition enters info force the Dominant Provider shall provide Ofcom with a description of the processes it has put in place to ensure compliance with this Condition. It shall keep those processes under review to ensure that they remain adequate for that purpose.

GH9.16 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Schedule 2

[DRAFT] The conditions imposed on Kingston Communications (Hull) plc under the Communications Act 2003 as a result of the analysis of the market for the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second in which Kingston Communications (Hull) plc has been found to have significant market power

Part 1: Definitions and Interpretation of these conditions

1. These conditions shall apply to the market for the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the Hull Area.

2. For the purpose of interpreting the conditions imposed on the Dominant Provider following a review of the markets referred to in paragraph 1 the following definitions shall apply:

   "**Act**" means the Communications Act 2003;

   "**Dominant Provider**" means KCOM Group plc whose registered company number is 2150618 and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985 as amended by the Companies Act 1989;

   "**the Hull Area**" means the area defined as the 'Licensed Area' in the licence granted on 30 November 1987 by the Secretary of State under section 7 of the Telecommunications Act 1984 to Kingston upon Hull City Council and KCOM Group plc;

   "**Network Component**" means to the extent they are used in the Market the network components specified in a Direction given by Ofcom from time to time for the purpose of these conditions;

   "**Reference Offer**" means the terms and conditions on which the Dominant Provider is willing to enter into an Access Contract;

   "**The Market**" means the market set out in paragraph 1 above;

   "**Third Party**" means a person providing a public Electronic Communications Service or a person providing a public Electronic Communications Network;

   "**Transfer Charge**" means the charge or price that is applied, or deemed to be applied, by the Dominant Provider to itself for the use or provision of an activity or group of activities. For the avoidance of doubt such activities or group of activities include, amongst other things, products and services provided from, to or within the Market and the use of Network Components in that Market; and

"**Usage Factor**" means the average usage by any Communications Provider (including the Dominant Provider itself) of each Network Component in using or providing a particular product or service or carrying out a particular activity.

3. Save for the purposes of paragraph 1, except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them and otherwise any word or expression shall have the same meaning as it has in the Act.

4. The Interpretation Act 1978 shall apply as if each of the conditions were an Act of Parliament.

5. Headings and titles shall be disregarded.

Part 2: The conditions

Condition GHA1 – Requirement to provide network access on reasonable request

GHA1.1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as Ofcom may from time to time direct.

GHA1.2 The provision of Network Access in accordance with paragraph GHA1.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may from time to time direct.

GHA1.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition GHA2 – Requirement not to unduly discriminate

GHA2.1 The Dominant Provider shall not unduly discriminate against particular persons or against a particular description of persons, in relation to matters connected with Network Access.

GHA2.2 In this Condition, the Dominant Provider may be deemed to have shown undue discrimination if it unfairly favours to a material extent an activity carried on by it so as to place at a competitive disadvantage persons competing with the Dominant Provider.

Condition GHA3 – Requirement to publish a reference offer

GHA3.1 Except in so far as Ofcom may otherwise consent in writing, the Dominant Provider shall publish a Reference Offer and act in the manner set out below.

GHA3.2 Subject to paragraph GHA3.8 below, the Dominant Provider shall ensure that a Reference Offer in relation to the provision of Network Access includes at least the following:

(a) a description of the Network Access to be provided, including technical characteristics (which shall include information on network configuration where necessary to make effective use of Network Access);

(b) the locations of the points of Network Access;

(c) the technical standards for Network Access (including any usage restrictions and other security issues);

(d) the conditions for access to ancillary, supplementary and advanced services (including operational support systems, information systems or databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing);

(e) any ordering and provisioning procedures;

(f) relevant charges, terms of payment and billing procedures;

(g) details of interoperability tests;

(h) details of maintenance and quality as follows:

(i) specific time scales for the acceptance or refusal of a request for supply and for completion, testing and hand-over or delivery of services and facilities, for provision of support services (such as fault handling and repair);

(ii) service level commitments, namely the quality standards that each party must meet when performing its contractual obligations;

(iii) the amount of compensation payable by one party to another for failure to perform contractual commitments;

(iv) a definition and limitation of liability and indemnity; and

(v) procedures in the event of alterations being proposed to the service offerings, for example, launch of new services, changes to existing services or change to prices;

(i) details of any relevant intellectual property rights;

(j) a dispute resolution procedure to be used between the parties;

(k) details of duration and renegotiation of agreements;

(l) provisions regarding confidentiality of non-public parts of the agreements;

(m) rules of allocation between the parties when supply is limited (for example, for the purpose of co-location or location of masts);

(n) the standard terms and conditions for the provision of Network Access;

(o) the amount applied to:

(i) each Network Component used in providing Network Access with the relevant Usage Factors;

(ii) the Transfer Charge for each Network Component or combination of Network Components described above;

reconciled in each case to the charge payable by a Communications Provider other than the Dominant Provider.

GHA3.3 To the extent that the Dominant Provider provides to itself Network Access that:

(i) is the same, similar or equivalent to that provided to any other person; or

(ii) may be used for a purpose that is the same, similar or equivalent to that provided to any other person,

in a manner that differs from that detailed in a Reference Offer in relation to Network Access provided to any other person, the Dominant Provider shall ensure that it publishes a Reference Offer in relation to the Network Access that it provides to itself which includes, where relevant, at least those matters detailed in paragraphs GHA3.2(a)-(o).

GHA3.4 The Dominant Provider shall, within one month of the date that this Condition enters into force, publish a Reference Offer in relation to any Network Access that it is providing as at the date that this Condition enters into force.

GHA3.5 The Dominant Provider shall update and publish the Reference Offer in relation to any amendments or in relation to any further Network Access provided after the date that this Condition enters into force.

GHA3.6 Publication referred to above shall be effected by:

(a) placing a copy of the Reference Offer on any relevant website operated or controlled by the Dominant Provider; and

(b) sending a copy of the Reference Offer to Ofcom.

GHA3.7 The Dominant Provider shall send a copy of the current version of the Reference Offer to any person at that person's written request (or such parts which have been requested).

GHA3.8 The Dominant Provider shall make such modifications to the Reference Offer as Ofcom may direct from time to time.

GHA3.9 The Dominant Provider shall provide Network Access at the charges, terms and conditions in the relevant Reference Offer and shall not depart therefrom either directly or indirectly.

GHA3.10 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition GHA4 – Requirement to notify technical information

GHA4.1 Save where Ofcom consents otherwise, where the Dominant Provider-

(a) proposes to provide Network Access covered by Condition GHA1, the terms and conditions for which comprise new-

(i) technical characteristics (including information on network configuration where

necessary to make effective use of the Network Access);

(ii) locations of the points of Network Access; or

(iii) technical standards (including any usage restrictions and other security issues), or

(b) proposes to amend an existing Access Contract covered by Condition GHA1 by modifying the terms and conditions listed in paragraph GHA4.1(a)(i) to (iii) on which the Network Access is provided,

the Dominant Provider shall publish a written notice (the "Notice") of the new or amended terms and conditions within a reasonable time period but not less than 90 days before either the Dominant Provider enters into an Access Contract to provide the new Network Access or the amended terms and conditions of the existing Access Contract come into effect.

GHA4.2 The Dominant Provider shall ensure that the Notice includes-

(a) a description of the Network Access in question;

(b) a reference to the location in the Dominant Provider's Reference Offer of the relevant terms and conditions;

(c) the date on which or the period for which the Dominant Provider may enter into an Access Contract to provide the new Network Access or any amendments to the relevant terms and conditions will take effect (the "effective date").

GHA4.3 The Dominant Provider shall not enter into an Access Contract containing the terms and conditions identified in the Notice or apply any new relevant terms and conditions identified in the Notice before the effective date.

GHA4.4 Publication referred to in paragraph GHA4.1 shall be effected by:

(a) placing a copy of the Notice on any relevant website operated or controlled by the Dominant Provider;

(b) sending a copy of the Notice to Ofcom; and

(c) sending a copy of the Notice to any person at that person's written request, and where the Notice identifies a modification to existing relevant terms and conditions, to every person with which the Dominant Provider has entered into an Access Contract covered by Condition GHA1. The provision of such a copy of the Notice may be subject to a reasonable charge.

Condition GHA5 – Basis of charges

GHA5.1 This Condition shall only apply if Ofcom gives notice to the Dominant Provider that it has breached the voluntary undertaking it gave to Ofcom concerning the pricing of the leased lines which are the subject of this Condition and as set out in a letter from the Dominant Provider to Ofcom dated [xxx 2008].

GHA5.2 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs and an appropriate return on capital employed.

GHA5.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time.

Schedule 3

[Draft] Direction under section 49 of the Communications Act 2003 and SMP Services Condition GH1 imposed on British Telecommunications plc ('BT') as a result of the market power determinations made by the Office of Communications ('Ofcom') that BT has significant market power in the market for the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second for the UK (excluding the Hull Area and the Central and East London Area)

WHEREAS:

(A) As a result of a market analysis carried out by Ofcom, it proposed on 10 July 2008, in accordance with sections 48 (2) and 80 if the Act, that the Dominant Provider has significant market power in the markets for the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second for the UK (excluding the Hull Area and the Central and East London Area);

(B) Ofcom further proposed SMP Service Condition GH1 which imposes various obligations on the Dominant Provider, *inter alia,* the obligation to comply with any Direction Ofcom may from time to time make under this Condition;

(C) this [Draft] Direction concerns matters to which Condition GH1 relates;

(D) for the reasons set out in the explanatory statement accompanying this [Draft] Direction, Ofcom is satisfied that, in accordance with section 49(2) of the Act, this [Draft] Direction is:

(i) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;

(ii) not such as to discriminate unduly against particular persons or against a particular description of persons;

(iii) proportionate to what it is intended to achieve; and

(iv) in relation to what it is intended to achieve, transparent;

(E) for the reasons set out in the explanatory statement accompanying this [Draft] Direction, Ofcom is satisfied that it has acted in accordance with the relevant duties set out in sections 3 and 4 of the Act;

(F) Ofcom has published a notification of the proposed [Draft] Direction in accordance with section 49 of the Act;

NOW, therefore, pursuant to Condition GH1 Ofcom makes the following Direction:

For the purpose of interpreting this Direction the following definitions shall apply:

"**Act**" means the Communications Act 2003;

"**Central and East London Area**" ('CELA') means the area in London consisting of the postal sectors set out in the Appendix to the Notification contained in Annex [7] to Ofcom's explanatory statement published on [10 July 2008].

"Dominant Provider" means British Telecommunications plc ('BT'), whose registered company number is 1800000 and any British Telecommunications plc subsidiary or holding company, or any subsidiary of that holding company, all as defined by Section 736 of the Companies Act 1985 as amended by the Companies Act 1989;

"**Hull Area**" means the area defined as the 'Licensed Area' in the licence granted on 30 November 1987 by the Secretary of State under section 7 of the Telecommunications Act 1984 to Kingston upon Hull City Council and KCOM Group plc;

"**Point of Connection**" means a point at which the Dominant Provider's Electronic Communications Network and another person's Electronic Communications Network are connected;

"**Third Party**" means a person providing a public Electronic Communications Service or a person providing a public Electronic Communications Network.

For the purpose of this Direction the following terms shall have the meaning as set out in the Dominant Provider's Standard PPC Handover Agreement, as at the date of publication of this Direction, but with the necessary changes in order to ensure compliance with the Direction:

- Advance Capacity Order
- Advance Order Commitment
- BT Retail Private Circuit
- BT Serving Node
- Capacity Order
- Capacity Profile
- Customer Sited Handover ("CSH")
- Forecast Profile
- In building Handover ("IBH")
- In-Span Handover ("ISH")
- Re-Designation
- Qualifying BT Retail Private Circuit

The following definitions shall also apply for the purpose of this Direction:

Term	Definition
Acceptance of Terms	Date on which a Third Party confirms acceptance of delivery conditions and is committed to the order.
Civil Works	Works that necessitate the digging up of a street for the installation of ducts.
Committed Delivery Date	The date confirmed by the Dominant Provider as the delivery date.
Firm Offer Confirmation (“FOC”)	Confirmation by the Dominant Provider in writing (by fax or e-mail) to a Third Party of the delivery conditions including price and Committed Delivery Date, after acknowledging receipt of an order for a Partial Private Circuit or Network Infrastructure from a Third Party.
FOC Acceptance Interval	The number of working days from the FOC Date until the Acceptance of Terms.
FOC Date	The date on which the Dominant Provider makes a Firm Offer Confirmation.
FOC Receipt Interval	The number of working days from the Order Request Date until the FOC Date.
Installation Date	Date of installation of a Partial Private Circuit or Network Infrastructure.
Network Infrastructure	The categories of products listed in the table contained in paragraph 51 of this Direction.
Order Request Date	Date on which a Third Party dispatches a valid Partial Private Circuit order, or Network Infrastructure order, to the Dominant Provider.
Partial Private Circuit (“PPC”)	A circuit provided pursuant to the PPC Contract and in accordance with the Directions.
PPC Contract	The Dominant Provider's Standard PPC Handover Agreement as at the date of publication of this Direction.
Provisioning Interval	The number of working days from the Order Request Date until the Installation Date.
Requisite Period	The period commencing on the Order

	Request Date and ending on the applicable working day as set out in the tables in paragraphs 41 and 51 of this Direction.
Reduced Requisite Period	The period commencing on the Order Request Date and ending on the applicable working day as set out in the tables in paragraphs 44 and 54 of this Direction.
Subsequent Partial Private Circuit	A Partial Private Circuit which can be delivered on dedicated pre-provided Network Infrastructure where spare capacity exists.

Except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them.

The Interpretation Act 1978 shall apply as if this Direction was an Act of Parliament.

Headings and titles shall be disregarded.

The Dominant Provider shall provide Partial Private Circuits and shall do so in accordance with this Direction.

Migration

1. The 12 month contractual minimum term placed upon a Third Party, for the provision of a Partial Private Circuit which has been migrated pursuant to the PPC Contract, shall be measured from the date that the original BT Retail Private Circuit was brought into service.

2. The Dominant Provider shall not impose any deadline before which a Third Party must inform the Dominant Provider that it requires a BT Retail Private Circuit to be migrated to an equivalent Partial Private Circuit status under the PPC Contract.

3. The Dominant Provider shall allow a BT Retail Private Circuit, which fell within paragraph 1.3 of the Phase 1 PPC Direction published on 14 June 2002, to be considered under the PPC Contract as a Qualifying BT Retail Private Circuit.

4. A circuit deemed to be a Qualifying BT Retail Private Circuit under paragraphs 20 or 21 of the Phase 2 PPC Direction published on 23 December 2002 shall continue to be a Qualifying BT Retail Private Circuit.

5. Where a Third Party was not previously eligible to migrate a BT Retail Private Circuit to a Qualifying BT Retail Private Circuit, but subsequently becomes eligible to do so, the Dominant Provider shall, for 60 working days following the date on which the Third Party's circuits become eligible for migration, allow migration without the Third Party incurring any penalty (including any default or early termination charge) under its agreement with the Dominant Provider for the provision of BT Retail Private Circuits.

6. Where, at the date of publication of this Direction, the Dominant Provider offers a BT Retail Private Circuit product and does not offer an equivalent Partial Private Circuit product, but subsequently offers to provide an equivalent Partial Private Circuit product, it shall allow a Third Party to migrate to the equivalent Partial Private Circuit product without it incurring any penalty (including any default or early termination charge) under its agreement with the Dominant Provider for the provision of BT Retail Private Circuits, for a period of 60 working

days following the date on which the equivalent Partial Private Circuit product is first offered by the Dominant Provider.

7. Where the Dominant Provider has taken, or will take, longer than five working days from receiving a request from a Third Party to migrate a Qualifying BT Retail Private Circuit to a Partial Private Circuit, it shall give to the Third Party a refund as set out in paragraphs 8 and 9 of this Direction.

8. Where paragraph 7 of this Direction applies, the Dominant Provider shall refund to the Third Party a sum of money equal to the difference between:

- the charge levied by the Dominant Provider for the BT Retail Private Circuit to which the request for migration relates; and
- the charge levied by the Dominant Provider for the Partial Private Circuit to which the request for migration relates.

9. The refund set out in paragraph 8 of this Direction shall cover the period from the date the Dominant Provider receives the request to migrate until the date the Dominant Provider completes the migration.

10. The Dominant Provider shall, upon a Third Party's written request, provide to the Third Party a map of its network within the United Kingdom which clearly illustrates and labels the geographic location of each Dominant Provider tier 1, tier 1.5, tier 2, and tier 3 node.

Forecasts

11. The Dominant Provider shall only require a Third Party to provide a profile of future Partial Private Circuit capacity ordering intentions over a 12 month period, on a national aggregate basis for groupings of bandwidths no narrower than the following:

- less than 1 Mbit/s; and
- 1 Mbit/s through to 2 Mbit/s.

12. The Dominant Provider shall allow a Third Party to set its Advance Capacity Order and Advance Order Commitment without any penalty by up to, 10% (by volume) below, or 20% (by volume) above, the amount stated in the Third Party's previous Capacity Profile or Forecast Profile for the period covered by the Advance Capacity Order or Advance Order Commitment.

13. The Dominant Provider shall allow a Third Party to revise periods covered by its previously stated Capacity Profile and Forecast Profile without any penalty by up to, 30% (by volume) below, or 30% (by volume) above, the amount stated in the Third Party's previous Capacity Profile or Forecast Profile, provided that paragraph 12 of this Direction does not apply.

14. In calculating any increase to an Advance Capacity Order, Advance Order Commitment, Capacity Profile or Forecast Profile pursuant to paragraphs 12 and 13 of this Direction, the outcome of the revision shall, if not an integer, be rounded up to the nearest integer.

15. In calculating any decrease to an Advance Capacity Order, Advance Order Commitment, Capacity Profile or Forecast Profile pursuant to paragraphs 12 and 13 of this Direction, the outcome of the revision shall, if not an integer, be rounded down to the nearest integer.

16. Where a Third Party places a Capacity Order at a Point of Connection for the period corresponding to that of the Advance Capacity Order, which total less than its Advance Capacity Order for the Point of Connection, the Dominant Provider may levy a charge no more than a sum equal to:

[(80% of B) – C] x £2,490

Where B is the total capacity provision by number of VC4-equivalent units specified in the relevant Advance Capacity Order in respect of each Point of Connection; and

Where C is the number of VC4-equivalents ordered during the period to which the relevant Advance Capacity Order relates in respect of each Point of Connection, but does not include cancellations of Capacity Orders made during or after the relevant Advanced Capacity Order period, but does include any Capacity Order cancelled as a result of the inability of the Dominant Provider to secure consents for CSH links.

17. Where a Third Party places orders for Partial Private Circuits below 1 Mbit for the period corresponding to that of the Advanced Order Commitment, which total less than its Advance Order Commitment for the Partial Private Circuits below 1 Mbit, the Dominant Provider may levy a charge no more than a sum equal to:

[(80% of B) – C] x £52

Where B is the total Advance Order Commitment for Private Partial Circuits below 1 Mbit; and

Where C is the number of Partial Private Circuits below 1 Mbit ordered during the period to which the Advance Order Commitment relates, but does not include cancellations of orders for Partial Private Circuits made during or after the relevant Advanced Order Commitment period, but does include any order for a Partial Private Circuit cancelled as a result of the inability of the Dominant Provider to secure consents for Partial Private Circuits.

18. Where a Third Party places orders for Partial Private Circuits from 1 Mbit through to 2 Mbit/s for the period corresponding to that of the Advanced Order Commitment, which total less than its Advance Order Commitment for Partial Private Circuits from 1 Mbit through to 2 Mbit/s, the Dominant Provider may levy a charge no more than a sum equal to:

[(80% of B) – C] x £143

Where B is the total Advance Order Commitment for Private Partial Circuits from 1 Mbit through to 2 Mbit/s; and

Where C is the number of Partial Private Circuits from 1 Mbit through to 2 Mbit/s ordered during the period to which the Advance Order Commitment relates, but does not include cancellations of orders for Partial Private Circuits made during or after the relevant Advanced Order Commitment period, but does include any order for a Partial Private Circuit cancelled as a result of the inability of Dominant Provider to secure consents for Partial Private Circuits.

19. [Paragraph not used].

20. In calculating (80% of B) in paragraphs 16 to 18 inclusive of this Direction the outcome shall, if not an integer, be rounded down to the nearest integer.

Service level agreements (SLAs)

General

21. The Dominant Provider shall set a Committed Delivery Date for each Partial Private Circuit or Network Infrastructure ordered from it by a Third Party and shall be required to provide reasons to justify a Committed Delivery Date which is set beyond the 57th day and that any extension of the Committed Delivery Date beyond the 57th shall be made subject to the consent of the Third Party concerned whose consent shall not be unreasonably withheld.

22. For each Partial Private Circuit or Network Infrastructure ordered from the Dominant Provider by a Third Party, the Dominant Provider shall provide to a Third Party Firm Offer Confirmation in the manner set out in the definition section of this Direction.

23. The time scales and levels of fixed individual compensation payments to be payable under the service level agreement shall be those set out in paragraph 34 of this Direction, unless otherwise agreed between the Dominant Provider and a Third Party, or except to the extent that Ofcom otherwise consents.

24. Unless otherwise agreed between the Dominant Provider and a Third Party, any fixed individual compensation payment, or reimbursement pursuant to paragraph 28 of this Direction, payable by the Dominant Provider to a Third Party pursuant to the Directions shall be offset by the Dominant Provider against the money owed to it by the Third Party, on a quarterly basis. The Dominant Provider shall keep complete and accurate records of the amounts it has offset in accordance with this paragraph. Such records shall be made available by the Dominant Provider following a request by a Third Party.

25. The Dominant Provider shall not be liable to pay fixed individual compensation payments pursuant to the Directions for periods of delay which arise due to circumstances beyond its reasonable control. The Dominant Provider shall notify a Third Party as soon as reasonably practicable when such circumstances arise. All contractors or sub-contractors of whatever level, and their respective employees, servants and agents, shall for the purpose of this paragraph be treated as employees of the Dominant Provider. Major construction works shall not be considered circumstances beyond the Dominant Provider's reasonable control.

26. The Dominant Provider shall ensure that any time limits set out in this Direction shall not apply to a Third Party to the extent that periods of delay arise due to circumstances beyond its reasonable control. The Third Party shall notify the Dominant Provider as soon as reasonably practicable when such circumstances arise. All contractors or sub-contractors of whatever level, and their respective employees, servants and agents, shall for the purpose of this paragraph be treated as employees of the relevant Third Party.

27. The Dominant Provider shall, at the reasonable request of a Third Party, postpone the Committed Delivery Date of a Partial Private Circuit or Network Infrastructure if such postponement is technically and organisationally reasonable. In agreeing to such a postponement the Dominant Provider shall only charge for reasonable additional expenses it has directly incurred as a result of the postponement.

28. The Dominant Provider shall only postpone the Committed Delivery Date of a Partial Private Circuit or Network Infrastructure with the written agreement of the Third Party. The Dominant Provider shall inform the Third Party as soon as reasonably possible of any proposed postponement of the Committed Delivery Date. Where such a postponement takes place the Dominant Provider shall reimburse the Third Party for any reasonable additional cost incurred by the Third Party as a direct result of the postponement.

29. The FOC Receipt Interval shall be a maximum of:

– five working days for Partial Private Circuits of less than 2 Mbit/s; and
– eight working days for Partial Private Circuits of 2 Mbit/s and Network Infrastructure;

regardless of how many Partial Private Circuits are, or the amount of Network Infrastructure is, ordered at a particular site.

30. The Dominant Provider shall ensure that the FOC Acceptance Interval is a maximum of one working day for Partial Private Circuits of 2 Mbit/s or below and two working days for Network Infrastructure. Where a Third Party has not informed the Dominant Provider of its Acceptance of Terms or rejection of the order within five working days of the FOC Date, the Dominant Provider may cancel the Third Party's order.

31. The Dominant Provider shall keep complete and accurate records of the ordering, provision and repair of Partial Private Circuits and Network Infrastructure it provides to a Third Party.

32. Where any Partial Private Circuit or Network Infrastructure which is ordered by a Third Party is in excess of 110% (by volume), rounded up to the nearest integer where necessary, of its Advance Order Commitment or Advance Capacity Order, the applicable Requisite Period set out in the tables in paragraphs 41 and 51 of this Direction shall be extended by 50% and rounded up to the nearest working day, where necessary, for the purposes of calculating fixed individual compensation payments.

Unliquidated damages

33. Nothing in the PPC Contract, as amended by the Direction, shall prevent a Third Party from bringing a claim against the Dominant Provider for unliquidated damages over and above the fixed individual compensation payments set out in the Direction.

Service level guarantees (SLGs)

Modifications to the PPC Contract

34. The Dominant Provider shall amend the terms and conditions which govern the supply of Partial Private Circuits or Network Infrastructure set out in the PPC Contract to provide the following:

Compensation per event and value of compensation

a) The Dominant Provider shall pay the Third Party compensation for each day or part day of delay in delivery of service beyond the Committed Delivery Date or the Third Party's Requirement Date (whichever is later).

b) The Dominant Provider shall pay the Third Party compensation for each and every fault which has not been restored in the first five hours on a per hour basis thereafter.

c) The compensation payable in event of the each late provision of the required Partial Private Circuit or Network Infrastructure service shall be set at 100% of one month's line rental for every day or part day of delay beyond the Committed Delivery Date or Requirement Date (whichever is later), up to a maximum of 60 days.

d) The compensation payable in the event of each late fault repair in relation to a Partial Private Circuit or Network Infrastructure shall be 15% of one month's line rental for every fault which has not been restored in the first five hours for every hour thereafter until service is restored, up to a maximum of 200 hours.

e) Any limits on compensation payable as a result of a failure to satisfy the service guarantees shall be removed other than those set out in (c) and (d) above.

Additional losses

f) Any compensation payable under the contract shall be without prejudice to any right of either party to claim for additional loss.

Proactive payments

g) The Dominant Provider shall monitor its performance against the service guarantees for fault repair and provision and compensate Third Parties proactively should it fail to satisfy the service guarantees. Compensation payments shall be made as soon as possible after the event and not later than the billing cycle following the billing cycle after the event unless not practicable. For the avoidance of doubt, compensation shall be payable without the need for a Third Party to make a claim.

35. The terms and conditions amended as set out in paragraph 34 above shall take effect from [the 90th day after the publication of the Final Statement].

Partial Private Circuits

Quick quote and very high bandwidth quote on line

36. The Dominant Provider shall provide to a Third Party, upon written request, the necessary wholesale network and pricing information to enable the Third Party to obtain the same information for Partial Private Circuits that is available to the Dominant Provider's retail arm, for its "Quick Quote" quote facilities.

Concurrency of Partial Private Circuit and ISH link and CSH link delivery times

37. Where a Third Party has ordered a Partial Private Circuit, and the operation of the circuit requires the provision of an ISH link, CSH link or IBH link, the Dominant Provider shall ensure that the delivery dates of the Partial Private Circuit and the CSH link, ISH link or IBH link are the same.

Expedited orders

38. Upon a Third Party's written request, the Dominant Provider shall make reasonable endeavours to set a Committed Delivery Date for Partial Private Circuits within 50% of the relevant Requisite Period set out in the table in paragraph 41 of this Direction, rounded up to the nearest working day where necessary, for at least 15% (by volume) of a Third Party's previous month's order. The Third Party shall inform the Dominant Provider which particular Partial Private Circuits it shall endeavour to be expedited pursuant to this paragraph. This paragraph shall only apply to the delivery of Partial Private Circuits of 2 Mbit/s or less. This paragraph shall not apply to Partial Private Circuits which exceed 110% (by volume), rounded up to the nearest integer where necessary, of a Third Party's Advance Order Commitment.

39. Paragraph 48 of this Direction does not apply to orders of Partial Private Circuits made pursuant to paragraph 38 of this Direction.

Time scales for fixed individual compensation

40. Where the Committed Delivery Date for Partial Private Circuits is set by the Dominant Provider later than the relevant Requisite Period (as set out in the table in paragraph 41 of this Direction) without the agreement of a Third Party, the Dominant Provider shall be liable to pay the Third Party a fixed individual compensation payment in accordance with paragraph 34 of this Direction.

41. Where the Committed Delivery Date for Partial Private Circuits is set by the Dominant Provider either, later than the relevant Requisite Period (as set out in the table below) but with the agreement of a Third Party, or within the Requisite Period, the Dominant Provider shall be liable to pay the Third Party a fixed individual compensation payment in accordance with paragraph 34 of this Direction.

Bandwidth of Partial Private Circuit	**Requisite Period**
64 kbit/s	10 working days
128 kbit/s to 256 kbit/s delivered over copper	10 working days
128 kbit/s to 256 kbit/s delivered over fibre	30 working days
320 kbit/s to 960 kbit/s	30 working days
1 Mbit/s	30 working days
2 Mbit/s	30 working days
Subsequent Partial Private Circuit of 2 Mbit/s	10 working days

Third Party's ability to cancel order

42. Where the Provisioning Interval exceeds the relevant Requisite Period set out in the table in paragraph 41of this Direction, a Third Party shall be allowed to cancel its order for a Partial Private Circuit after the Cancellation Threshold (as set out in the table below) has expired. The Cancellation Threshold shall commence upon the expiry of the relevant Requisite Period set out in the table in paragraph 41of this Direction. The Requisite Periods in the table in paragraph 41shall apply, for the purposes of this paragraph, regardless of whether there is a delay in delivery of a Partial Private Circuit which is due to circumstances beyond the Dominant Provider's reasonable control but not including delay by a Third Party.

Requisite Period set out in the table in paragraph 41 of this Direction	**Cancellation Threshold**
10 working days	10 working days
30 working days	20 working days

43. Where a Third Party cancels a Partial Private Circuit pursuant to paragraph 42 of this Direction, the Dominant Provider shall not charge the Third Party for the circuit and shall not charge for cancelling the circuit. The Dominant Provider shall also be liable to pay the Third Party any fixed individual compensation payments accumulated pursuant to the PPC Contract as amended by the Directions.

Reduced Requisite Periods for Partial Private Circuits

44. The Dominant Provider shall ensure that for at least 70% (by volume) of Partial Private Circuits of a particular bandwidth delivered by the Dominant Party to a Third Party within a three month period (such period not to be calculated on a rolling basis) the Committed Delivery Date is set within the relevant Reduced Requisite Period (as set out in the table below).

Bandwidth of Partial Private Circuit	**Reduced Requisite Period**
128 kbit/s to 256 kbit/s delivered over fibre	20 working days
320 kbit/s to 960 kbit/s	20 working days
1 Mbit/s	20 working days
2 Mbit/s	20 working days

45. In calculating the 70% (by volume) of Partial Private Circuits to which paragraph 44 of this Direction applies the following shall not be included:

- Partial Private Circuits of 64 kbit/s;

- Partial Private Circuits of 128 kbit/s to 256 kbit/s delivered over copper;

- Subsequent Private Partial Circuits of 2Mbit/s;

- Partial Private Circuit orders to which paragraph 38 of this Direction applies; and

- Partial Private Circuits which exceed 110% (by volume), rounded up to the nearest integer where necessary, of a Third Party's Advance Order Commitment.

46. The Reduced Requisite Periods set out in the table in paragraph 44 of this Direction apply only if, in the previous three month reporting period (such period not to be calculated on a rolling basis), a Third Party has ordered from the Dominant Provider at least ten Partial Private Circuits of the same bandwidth where such Partial Private Circuits are 2 Mbit/s or less.

47. For the purposes of this Direction, in determining whether 110% (by volume), rounded up to the nearest integer where necessary, of a Third Party's Advance Order Commitment has been exceeded, the calculation shall be at a national level for each individual Partial Private Circuit bandwidth category and applied in the order in which the Partial Private Circuits were ordered by the Third Party.

Multiple orders

48. Where the Dominant Provider receives an order for more than 10 Partial Private Circuits at one site from a Third Party, the relevant Requisite Period applicable to determine whether the Dominant Provider shall pay fixed individual compensation as set out in paragraphs 40 and 41of this Direction, shall be the relevant Requisite Period set out in the table in paragraph 41of this Direction increased by a maximum of 50%. The Dominant Provider shall inform the Third Party of the revised time scales as soon as reasonably practicable.

Availability of service

49. When total loss of service (i.e. total loss of service for one minute or longer) occurs three or more times, within a 12 month period, to a Partial Private Circuit, the Third Party shall not be liable to the Dominant Provider for the monthly rental in any subsequent month where total loss of failure occurs to the Partial Private Circuit, until such time as 12 months have passed and the Partial Private Circuit has not suffered total loss of service. Occurrences of total loss of service which result in the Dominant Provider being liable to pay fixed individual compensation pursuant to paragraphs 60, 61 and 62 of this Direction, shall not be considered as an occurrence of a total loss of service for the purposes of this paragraph.

Network Infrastructure

Time scales for fixed individual compensation

50. Where the Committed Delivery Date for Network Infrastructure is set by the Dominant Provider later than the relevant Requisite Period (as set out in the table in paragraph 51 of this Direction) without the agreement of a Third Party, the Dominant Provider shall be liable to pay the Third Party a fixed individual compensation payment in accordance with paragraph 34 of this Direction.

51. Where the Committed Delivery Date for Network Infrastructure is set by the Dominant Provider either, later than the relevant Requisite Period (as set out in the table below) but with the agreement of a Third Party, or within the Requisite Period, the Dominant Provider shall be liable to pay the Third Party a fixed individual compensation payment in accordance with paragraph 34 of this Direction.

Network Infrastructure	**Requisite Period (where the Dominant Provider needs to carry out Civil Works)**	**Requisite Period (where the Dominant Provider does not need to carry out Civil Works)**
ISH links	110 working days	85 working days
CSH links	110 working days	85 working days
IBH links	110 working days	85 working days
ISH links – provision of new multiplexor on an existing Point of Connection	Not applicable	60 working days
ISH links - provision of extra STM-1 interface on existing STM-1 ISH SMA4 multiplexor	Not applicable	60 working Days
CSH links - provision of new multiplexor on existing Point of Connection	Not applicable	60 working Days
CSH links requiring only		

provision of new tributary card on existing multiplexor	Not applicable	25 working Days

Third Party's ability to cancel order

52. Where the Provisioning Interval exceeds the relevant Requisite Period set out in the table in paragraph 51 of this Direction, a Third Party shall be allowed to cancel its order for Network Infrastructure after the Cancellation Threshold (as set out in the table below) has expired. The Cancellation Threshold shall commence upon the expiry of the relevant Requisite Period set out in the table in paragraph 51 of this Direction. The Requisite periods in the table in paragraph 51 shall apply, for the purposes of this paragraph, regardless of whether there is a delay in delivery of Network Infrastructure which is due to circumstances beyond the Dominant Provider's reasonable control but not including delay by a Third Party.

Requisite Period set out in the table in paragraph 51 of this Direction	**Cancellation Threshold**
21 to 40 working days	20 working days
41 to 60 working days	25 working days
61 to 90 working days	30 working days
Over 90 working days	40 working days

53. Where a Third Party cancels Network Infrastructure pursuant to paragraph 52 of this Direction, the Dominant Provider shall not charge the Third Party for the Network Infrastructure and shall not charge for cancelling the Network Infrastructure. The Dominant Provider shall also be liable to pay the Third Party any fixed compensation payments accumulated pursuant to the PPC Contract as amended by the Directions.

Reduced Requisite periods for Network Infrastructure

54. The Dominant Provider shall ensure that for at least 70% (by volume) of the total VC4-equivalents of Network Infrastructure delivered by it to a Third Party during a three month period (such period not to be calculated on a rolling basis) the Committed Delivery Date is set within the relevant Reduced Requisite Period (as set out in the table below).

Network Infrastructure	**Reduced Requisite Period (where the Dominant Provider needs to carry out Civil Works)**	**Reduced Requisite Period where the Dominant Provider does not need to carry out Civil Works)**
ISH links	75 working days	60 working days
CSH links	75 working days	60 working days
IBH links	75 working days	60 working days
ISH links - provision of new multiplexor on an existing Point of Connection	Not applicable	40 working days
ISH links - provision of extra STM-1 interface on		

existing STM-1 ISH SMA4 multiplexor	Not applicable	40 working days
CSH links - provision of new multiplexor on existing Point of Connection	Not applicable	40 working days
CSH links requiring only provision of new tributary card on existing multiplexor	Not applicable	20 working days

55. In calculating the 70% (by volume) of the total VC4-equivalents of Network Infrastructure to which paragraph 54 of this Direction applies the following shall not be included:

- Network Infrastructure which exceeds 110% (by volume), rounded up to the nearest integer where necessary, of a Third Party's Advance Capacity Order.

56. The Reduced Requisite Periods set out in the table in paragraph 54 of this Direction only apply if, in the previous three month reporting period (such period not to be calculated on a rolling basis) a Third Party has ordered from the Dominant Provider at least 2 VC4-equivalents of Network Infrastructure. For the purposes of this paragraph the first reporting period of three months shall be the first such reporting period falling after 30 working days following the date of publication of this Direction.

57. For the purposes of this Direction, in determining whether 110% (by volume), rounded up to the nearest integer where necessary, of a Third Party's Advance Capacity Order has been exceeded, the calculation shall be made using VC4-equivalents at each Point of Connection applied in the order in which the Network Infrastructure was ordered by the Third Party.

Repair of Partial Private Circuits and Network Infrastructure

58. Where the Dominant Provider offers to a Third Party Regular Care and Enhanced Care for Partial Private Circuits and Network Infrastructure it shall do so at a cost orientated price and as set out in the table below:

	Operational hours	**Repair/response time**	**Extras**
Regular Care	Normal working hours	Response within one working day of receipt of a fault report by a Third Party. Repair within two working days of receipt of a fault report by a Third Party.	If a fault is not remedied within two working days of receipt of a fault report by a Third Party, the Dominant Provider shall call the Third Party to report progress being made to remedy the fault.
Enhanced Care	24 hours per day, 7 days per week (including public and bank holidays).	Response within four hours of receipt of a fault report from a Third Party.	If a fault is not remedied within five hours of receipt of a fault report by a Third Party, the

		Repair within five hours of receipt of a fault report by a Third Party.	Dominant Provider shall contact the Third Party to report progress being made to remedy the fault.

59. Receipt by the Dominant Provider from a Third Party of a report of a fault concerning a Partial Private Circuit or Network Infrastructure, shall be acknowledged by the Dominant Provider to the Third Party within one hour.

60. Where the Dominant Provider fails to repair a Partial Private Circuit within the time limits set out in the table in paragraph 58 of this Direction it shall pay to the Third Party a fixed individual compensation payment as set out in paragraphs 61 to 65 inclusive of this Direction in respect of the period commencing on the expiry of the applicable repair time set out in the table in paragraph 56 and expiring at the time the Partial Private Circuit or Network Infrastructure is repaired.

61. Where the Third Party has ordered the Dominant Provider's Regular Care for Partial Private Circuits, the Dominant Provider shall pay the Third Party an amount set in accordance with paragraph 34 of this Direction.

62. Where the Third Party has ordered the Dominant Provider's Regular Care for Network Infrastructure, the Dominant Provider shall pay the Third Party an amount set in accordance with paragraph 34 of this Direction.

63. Where the Third Party has ordered the Dominant Provider's Enhanced Care for Partial Private Circuits, the Dominant Provider shall pay the Third Party an amount set in accordance with paragraph 34 of this Direction.

64. Where the Third Party has ordered the Dominant Provider's Enhanced Care for Network Infrastructure, the Dominant Provider shall pay the Third Party an amount set in accordance with paragraph 34 of this Direction.

65. The Dominant Provider shall not be liable to pay fixed individual compensation pursuant to paragraphs 62 and 64 of this Direction where it is also liable for fixed individual compensation pursuant to paragraphs 61 and 63 of this Direction where the Partial Private Circuit is being provided using the Network Infrastructure which is being repaired.

66. The Dominant Provider shall attend, and invite Third Parties to regular meetings to review the level of service provided by it in relation to Partial Private Circuits and related Network Infrastructure.

Change of speed or interface

67. The Dominant Provider shall offer to provide within a reasonable period of a Third Party's written request, the ability to alter the speed or interface of a Partial Private Circuit.

68. The Dominant Provider shall ensure that it provides to a Third Party a Partial Private Circuit variant for the services to which paragraph 65 of this Direction applies, which are equivalent to the services it currently provides on a retail basis for retail leased lines.

STM-1, ISH and CSH handover

69. The Dominant Provider shall offer to provide within a reasonable period of a Third Party's written request for a Synchronous Transfer Mode–1 ("STM-1"), an interface using an ISH link, CSH link or IBH link; and handover pursuant to paragraph 70 of this Direction. Such link or handover shall be provided by way of network connecting apparatus capable of providing no more than the STM-1 capacity ordered by the Third Party.

70. The Dominant Provider shall within a reasonable period of a Third Party's written request, handover in a footway jointing chamber for Partial Private Circuits at a reasonable point nominated by the Third Party. The footway jointing chamber shall be located in the same Dominant Provider local serving exchange area as the Dominant Provider Serving Node to which the Partial Private Circuits being handed over are connected.

Equipment re-use

71. Paragraph 72 of this Direction shall only apply to the re-use of Plesiochronous Digital Hierarchy ("PDH") and Synchronous Digital Hierarchy ("SDH") equipment situated at a third party site ("Equipment").

72. The Dominant Provider may reject a request by a Third Party for re-use of PDH Equipment if such re-use would be incompatible with its network. Any such rejection by the Dominant Provider shall be made within 10 working days of a request by the Third Party and fully justified in writing to the requesting Third Party at the same time as the request is rejected.

Other Circuits

73. Unless Ofcom otherwise agrees, the Dominant Provider shall, offer to provide Partial Private Circuit with no single point of failure, within a reasonable period of a Third Party's request.

74. The Dominant Provider shall offer to provide, within a reasonable period of a Third Party's written request, a Partial Private Circuit which is dual pathed and diversely routed from a third party customer's premises to a Third Party's single Point of Connection.

75. The Dominant Provider shall implement this Direction within 10 working days of its publication.

76. This Direction shall take effect on the day it is published.

Gareth Davies
Competition Policy Director, Ofcom

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

[10 July 2008]

Annex 8

Glossary

Alternative interface symmetric broadband origination (AISBO)
A form of symmetric broadband origination service providing symmetric capacity between two sites, generally using an Ethernet IEEE 802.3 interface

Asymmetric Digital Subscriber Line (ADSL)
A technology that allows the use of a copper line to send a high data rate in one direction and a lower data rate in the other

Asynchronous Transfer Mode (ATM)
A technology that enables data transfer asynchronously relative to its input into the communications system. The data is put into cells and transmitted through the network to be re-constructed at the output.

Bandwidth
The physical characteristic of a telecommunications system that indicates the speed at which information can be transferred. In analogue systems, it is measured in cycles per second (Hertz) and in digital systems in bits per second (Bit/s).

Base-station Controller (BSC)
An element of a Mobile Telephone Network that controls a number of radio base-stations

Coarse Wave Division Multiplex (CWDM)
A transmission technology that enables up to 18 wavelengths of light to share the same fibre optic pair

Current Cost Accounting (CCA)
An accounting convention, where assets are valued and depreciated according to their current replacement cost whilst maintaining the operating or financial capital of the business entity.

Customer Sited Handover (CSH)
Interconnection occurs at a communications provider's premises.

Customer Premises Equipment (CPE)
Sometimes referred to as customer apparatus or consumer equipment, being equipment on consumers' premises which is not part of the public telecommunications network and which is directly or indirectly attached to it.

Dense Wave Division Multiplex (DWDM)
A transmission technology that enables up to 80 wavelengths of light to share the same fibre optic pair

Digital Local Exchange (DLE)
The telephone exchange to which customers are connected, usually via a concentrator

Digital Main Switching Unit (DMSU)
The main type of tandem switch, primarily used for conveying long distance calls. DMSUs form the backbone of the trunk network

Digital Subscriber Line (DSL)
A technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines

Electronic Communications Network (ECN)
A network that enables intercommunication between users of that network

Excess Construction Charge (ECC)
A charge levied where additional construction of duct and fibre or copper is required to provide service to a customer premise

Frame Relay
A packet switched data service providing for the interconnection of Local Area Networks and access to host computers at up to 2Mbit/s

Fully allocated cost (FAC)
An accounting approach under which all the costs of the company are distributed between its various products and services. The fully allocated cost of a product or service may therefore include some common costs that are not directly attributable to the service.

Global Positioning System (GPS)
A system of providing accurate geographic position of a user

In Span Handover (ISH)
Interconnection occurring at a point between BT's premises and a communications provider's premises

kbit/s
kilobits per second. A measure of speed of transfer of digital information

LAN Extension Service (LES)
A communications service that enables the connection of two Local Area Networks together

Leased line
A permanently connected communications link between two premises dedicated to the customers' exclusive use.

Local Area Network (LAN)
A network typically linking a number of computers together within a business premise enabling intercommunication between users and access to email, Internet and Intranet applications

Local Loop Unbundling (LLU) backhaul circuit
A circuit provided by BT that enables the connection of a communications provider's DSLAM to a communications provider's point of connection with BT's SDH network.

Long Run Incremental Cost (LRIC)
The cost caused by the provision of a defined increment of output given that costs can, if necessary, be varied and that some level of output is already produced.

Mobile switching Centre (MSC)
A component of a Mobile Telephone Network that switches voice calls between mobile users

Multi Protocol Label Switching (MPLS)
A technology that enables efficient routing of IP traffic over different systems

Multiple service Access Node (MSAN)
A device typically installed in a telephone exchange (although sometimes in a roadside cabinet) which connects customers' telephone lines to the core network, to provide telephony, ISDN and broadband all from a single platform

Mbit/s
Megabits per second. A measure of speed of transfer of digital information.

Next Generation Network (NGN)
A Network utilising new technology such as Ethernet and IP to provide an array of services to end-users

Partial Private Circuit (PPC)
A generic term used to describe a category of private circuits that terminate at a point of connection between two communications providers' networks. It is therefore the provision of transparent transmission capacity between a customer's premises and a point of connection between the two communications providers' networks. It may also be termed a part leased line.

Passive Optical Network (PON)
A particular configuration of fibre-optic network that brings optical fibre cabling and signals all or most of the way to the end user

Plesiochronous Digital Hierarchy (PDH)
An older method of digital transmission used before SDH which requires each stream to be multiplexed or demultiplexed at each network layer and does not allow for the addition or removal of individual streams from larger assemblies.

Points of Connection (POC)
A point where one communications provider interconnects with another communications provider for the purposes of connecting their networks to 3rd party customers in order to provide services to those end customers.

Public Switched Telephone Network (PSTN)
A telecommunications network providing voice telephony for the general public.

Radio Base Station (RBS) backhaul circuit
A circuit provided by BT that connects a mobile communications provider's base-station to the mobile communications provider's mobile switching centre.

Service Level Agreement (SLA)
A contract between a network service provider and a customer that specifies, usually in measurable terms, what services the network service provider will furnish

Service Level Guarantee (SLG)
A statement of measurable aspects of a service connected with the Service Level Agreement

SSNIP
Small but Significant Non-transitory Increase in Price, usually considered to be 5 to 10 per cent, which is part of the hypothetical monopolist test used in market definition analysis

Stand Alone Cost (SAC)
An accounting approach under which the total cost incurred in providing a product is allocated to that product.

Storage Area Network (SAN)
A high-speed special-purpose network that connects different kinds of data storage devices with associated data servers on behalf of a larger network of users

Synchronous Digital Hierarchy (SDH)
A method of digital transmission where transmission streams are packed in such a way to allow simple multiplexing and de-multiplexing and the addition or removal of individual streams from larger assemblies

Symmetric broadband origination (SBO)
A symmetric broadband origination service provides symmetric capacity from a customer's premises to an appropriate point of aggregation, generally referred to as a node, in the network hierarchy. In this context, a "customer" refers to any public electronic communications network provider or end user.

Symmetric Digital Subscriber Line (SDSL)
A technology that allows the use of a copper line to send an equal quantity of data (e.g. a television picture) in both directions

Tier 1
A tier in BT's SDH network that denotes a network of nodes covering areas of high population. These nodes are connected by very high capacity line systems and denote the BT trunk network.

Time Division Multiplex (TDM)
A method of putting multiple data streams in a single signal by separating the signal into many segments, each having a very short duration. Each individual data stream is reassembled at the receiving end based on the timing

TISBO (TISBO)
A form of symmetric broadband origination service providing symmetric capacity from a customer's premises to an appropriate point of aggregation in the network hierarchy, using a CCITT G703 interface

Ultra Dense Wave Division Multiplex (UDWDM)
A transmission technology that enables up to 320 or more wavelengths of light to share the same fibre optic pair

Voice over IP (VoIP)
A generic term used to describe telephony services provided over IP networks

Virtual Private Network (VPN)
A network that uses a public telecommunication infrastructure, such as the Internet, to provide remote offices or individual users with secure access to their organisation's network

Wave Division Multiplex (WDM)
A transmission technology that enables multiple wavelengths of light to share the same fibre optic pair

Wholesale Extension Service (WES)
A wholesale Ethernet product that can be used to link a customer premise to a node in a communications network

Wide Area Network (WAN)
A geographically dispersed telecommunications network