



Requests from BT for specified exemptions and agreements to its Undertakings under the Enterprise Act 2002

Part 2

Consultation

Publication date:	18 Oct 2006
Closing Date for Responses:	15 Nov 2006

Contents

Section		Page
1	Summary	1
2	Introduction	3
3	Ofcom's reasoning with respect to the exemptions requests	7
Annex		Page
1	Responding to this consultation	19
2	Ofcom's consultation principles	21
3	Consultation response cover sheet	22
4	Consultation questions	24
5	BT's exemption, variation and agreements requests	26
6	Proposed exemptions, agreements and variations wording	71

Section 1

Summary

- 1.1 This Consultation is seeking views from interested parties on various exemptions and agreements in relation to undertakings given by BT.
- 1.2 On 22 September 2005 BT Group plc ("BT") offered, and Ofcom accepted, a set of undertakings ("the Undertakings") pursuant to section 154 of the Enterprise Act 2002 in lieu of a reference of certain markets to the Competition Commission. At the time the Undertakings were formulated it was realised that in the interest of reaching a conclusion in a timely manner, to ensure that the benefits could be felt by consumers as quickly as possible, it would be inappropriate to define all those of BT's products to which Equivalence of Inputs (EOI) should apply. In addition, the Undertakings provide that under certain circumstances BT may apply for exemptions from certain provisions.
- 1.3 In January 2006, BT provided Ofcom with a proposed list of products (which had not been specifically identified in the original Undertakings) to which EOI should apply and a number of requests for exemptions and requests for agreement from Ofcom. BT needs to seek such requests since, for instance, Openreach cannot supply certain products on a non-EOI basis unless it has the agreement of Ofcom. Ofcom has been considering them since then. On 15 June 2006 Ofcom published a Statement relating to the first batch of exemption requests. This Statement listed 15 outstanding requests which Ofcom was still discussing with BT. This consultation addresses all but two of these 15 outstanding requests.
- 1.4 Section 155 of the Enterprise Act 2002 requires that Ofcom consults where it proposes to amend the Undertakings in a material respect. However, Ofcom does not consider that the exemptions and agreements contained herein would alter the Undertakings in a material respect were they to be agreed as they concern the operation of mechanisms envisaged when the Undertakings were offered by BT and accepted by Ofcom. Whilst Ofcom is not obliged to consult on non-material changes to the Undertakings, it stated in Exemptions Part 1 that it would decide whether or not to consult on any such changes in the future on a case-by-case basis and indicated that it intended to consult on the outstanding requests. Ofcom remains of the opinion that the issues under consideration are sufficiently complex that there is value in consulting with stakeholders to obtain views and comments that will help Ofcom in reaching its decision as to whether to agree, or not, to each request from BT.
- 1.5 This Consultation is seeking views from interested parties on all but two of the outstanding requests. The two requests upon which Ofcom has not been able so far to agree with BT, but upon which it is continuing to have discussions, are:
- Initial wideband planning; and
 - Inter-exchange capacity planning.
- 1.6 The Enterprise Act requires that Ofcom should "have regard to the need to achieve as comprehensive a solution as is reasonable and practicable to the adverse effect on competition". Ofcom's competition concerns were set out in its *Strategic Review of Telecommunications Phase 2 Consultation Document*¹. In considering the case

¹ http://www.ofcom.org.uk/consult/condocs/telecoms_p2/

for varying the Undertakings, Ofcom must consider whether this solution is materially and negatively affected by the variation in question.

- 1.7 As stated in paragraph 1.4, Ofcom does not consider the proposed variation to be material and it therefore follows that the variation can not in anyway materially affect the comprehensive solution that the Undertakings represent. Furthermore Ofcom considers that the variation will not have a negative impact on the comprehensive solution. In reaching this view and in considering the exemption requests within this Consultation Ofcom has considered the following factors where appropriate:
- whether there would be, or would likely be, harm to consumers if the exemption and/or agreement was granted or not granted due to, for instance, a reduction in effective competition or disruption to the services customers receive;
 - whether there would be demand from Communications Providers (other than BT) for an EOI product to which the exemption relates; and
 - the length of time for which the exemption and/or agreement will be granted and whether the amount of resource that would be needed to accelerate development of an EOI product is warranted balanced against other resource requirements (i.e. proportionality).
- 1.8 There are essentially three categories of request upon which Ofcom is consulting:
- i) the supply of legacy products (such as MegaStream Ethernet and Featureline) on an EOI basis; considered under Section 5.46.2 of the Undertakings which requires a decision to be made either to exclude the product from the EOI requirement, withdraw it from sale or supply, or apply EOI to it;
 - ii) the supply of certain engineering services (such as engineering services for BTGS in the Scottish Islands and Scilly Isles) currently supplied by Openreach to BT's downstream division(s), or vice versa, on a non-EOI basis in support of legacy products; and
 - iii) the supply of legacy products (such as Redcare CCTV and Wavestream) on an EOI basis (as per category (i) above) but which require a fibre-based input from Openreach currently not provided on an EOI basis.
- 1.9 Ofcom is proposing to agree all the requests under categories (i) and (ii), and is asking in this consultation whether respondents support this recommendation. For the four requests under category (iii) Ofcom is not making any specific recommendation, but is asking for views from respondents on the solutions proposed by BT.
- 1.10 Although Section 155 of the Enterprise Act does not apply in this instance, Ofcom notes that the period stipulated for consultation in the Act is a minimum of 15 days. However, it is Ofcom's view that in this instance a four week consultation is appropriate. Ofcom intends to publish a final statement with respect to the exemption requests within this Consultation in December 2006.

Section 2

Introduction

Background

- 2.1 On 22 September 2005 BT Group plc ("BT") offered, and Ofcom accepted, a set of undertakings ("the Undertakings") pursuant to section 154 of the Enterprise Act 2002 ("the Enterprise Act"). The Undertakings addressed issues that had been raised by Ofcom as it considered whether to refer certain markets to the Competition Commission in relation to the provision of fixed telecommunications. The Undertakings were accepted by Ofcom in lieu of making such a reference at that time. Ofcom's reasons for accepting the Undertakings, together with the Undertakings themselves, are set out in full in the document entitled *Final statements on the Strategic Review of Telecommunications, and undertakings in lieu of a reference under the Enterprise Act 2002*².
- 2.2 At the time the Undertakings were formulated it was realised that in the interest of reaching a conclusion in a timely manner, to ensure that the benefits of the Undertakings could be felt by consumers as quickly as possible, it would be inappropriate to consider all BT's products in the context of which products to which Equivalence of Inputs (EOI) should apply. In addition, during the course of BT's implementation of the Undertakings a number of processes or services have been identified by BT for which it has requested exemptions from certain sections of the Undertakings.
- 2.3 The process of considering to which products EOI should apply, and the additional exemption requests, has been underway since BT submitted its list of products (which had not been specifically identified in the original Undertakings) in January 2006, for consideration by Ofcom, in the form of a number of requests for exemptions and requests for agreement from Ofcom. BT needs to seek such requests since, for instance, Openreach cannot supply certain products on a non-EOI basis unless it has the agreement of Ofcom.
- 2.4 The first batch of exemptions and agreements were published by Ofcom in a statement published on 15 June 2006 ("Exemptions Part 1")³. In Section 4 of Exemptions Part 1 Ofcom listed 15 outstanding requests from BT which were still under consideration. In this document Ofcom is publishing the detail of all but two of the outstanding requests, together with its position with respect to each, and is inviting stakeholders to comment. Ofcom intends to publish a statement with respect to these outstanding requests in December 2006.
- 2.5 There are essentially three categories of request:
- i) the supply of legacy products (such as MegaStream Ethernet and Featureline) on an EOI basis; considered under Section 5.46.2 of the Undertakings. Section 5.46.1 lists a number of specific products and services to which EOI is not required to be applied. Products and services supplied by Openreach and not included under Section 5.46.1 or Annex 1 of the Undertakings fall under Section 5.46.2 which requires a decision to be made either to exclude it from the EOI requirement, withdraw it from sale or supply, or apply EOI to it;

² http://www.ofcom.org.uk/consult/condocs/statement_tsr/

³ <http://www.ofcom.org.uk/telecoms/btundertakings/exemptionsandvariations/requests/>

- ii) the supply of certain engineering services (such as engineering services for BT Global Services in the Scottish islands and Scilly Isles) currently supplied by Openreach to BT's downstream division(s), or vice versa, on a non-EOI basis in support of legacy products; and
 - iii) the supply of legacy products (such as Redcare CCTV and Wavestream) on an EOI basis (as per category (i) above) but which require a fibre-based input from Openreach currently not provided on an EOI basis.
- 2.6 Ofcom is proposing to agree all the requests under categories (i) and (ii), and is asking in this consultation whether respondents support this recommendation. For the four requests under category (iii) Ofcom is not making any specific recommendation, but is asking for views from respondents on the solutions proposed by BT.
- 2.7 The products and services to which these exemptions and agreements relate are set out in BT's submissions contained in Annex 5 to this Statement and the proposed legal document by which BT and Ofcom would agree the various proposed exemptions and agreements is contained in Annex 6. This document has been drafted to reflect Ofcom's position prior to the consultation and will be updated as necessary for the Statement to reflect any changes made as a result of considering stakeholder comments.

The exemptions process

- 2.8 The possibility of there being products and/or services about which a decision would need to be made with respect to EOI was recognised and anticipated for in the Undertakings. Section 5.46 of the Undertakings not only sets out the general principle of when EOI will apply (5.46.1) but also sets out a list of products to which EOI will not apply (5.46.1(a) – (i)). In addition Section 5.46.2 envisaged that there were products which would exist at the date the Undertakings came into force (22 September 2005) and which AS⁴ (now known as Openreach) would supply, but which Ofcom and BT would have to subsequently agree whether or not EOI should apply, or whether the product should be withdrawn from supply by Access Services.
- 2.9 Under the terms of the Undertakings (Section 5.46.2) BT and Ofcom are required to agree the action to be taken in respect of products and services which fall under Section 5.46.2 within four months of the Undertakings coming into force. This time period was extended in March 2006 to 11 months⁵ and subsequently extended again in August 2006 to 22 December 2006⁶. Also within Section 5.46.2 is an exemption in respect of the application of Section 5.46.1 to any products or services falling under Section 5.46.2. This exemption is for 12 months and is intended to allow sufficient time for the decisions taken in respect of the identified products or services to be implemented. In-line with the extension referred to above, this period has been extended by agreement from 12 months after the Undertakings come into force to 18 months⁷ after the Undertakings come into force.
- 2.10 However, not all the identified products and services are covered by the exemption in Section 5.46.2. For these products and services specific temporary exemptions up to

⁴ Since the Undertakings came into effect BT has created Openreach to fulfil the duties (as defined in the Undertakings) of Access Services.

⁵ <http://www.ofcom.org.uk/telecoms/btundertakings/exemptionsandvariations/variation1.pdf>

⁶ <http://www.ofcom.org.uk/telecoms/btundertakings/exemptionsandvariations/var3.pdf>

⁷ <http://www.ofcom.org.uk/telecoms/btundertakings/exemptionsandvariations/var3.pdf>

and including 24 April 2006 were granted in letters exchanged between Ofcom and BT on 20 January 2006⁸. These temporary exemptions were further extended by an exchange of letters between Ofcom and BT on 19 April 2006 to 21 August 2006 inclusive⁹, and again by an exchange of letters on 17 August 2006 to 22 December 2006 inclusive¹⁰. The requests considered in this Consultation that are covered by these letters are:

- the provision by Openreach of private circuit (including PPCs) provision, repair, maintenance and upgrade support services to BT Wholesale;
- the application of information sharing restrictions in respect of the 21CN network uplift programme;
- the use by BT Wholesale of non-EOI associated services in respect of HDFs and tie cables for its 20CN DSLAM equipment; and
- the support of BT Global Services products and services by Openreach engineers in specified geographies.

2.11 Section 155 of the Enterprise Act 2002 requires that Ofcom consults where it proposes to amend the Undertakings in a material respect. However, Ofcom does not consider that the exemptions and agreements contained herein would alter the Undertakings in a material respect were they to be agreed as they concern the operation of mechanisms envisaged when the Undertakings were offered by BT and accepted by Ofcom. Whilst Ofcom is not obliged to consult on non-material changes to the Undertakings, it stated in Exemptions Part 1 that it would decide whether or not to consult on any such changes in the future on a case-by-case basis and indicated that it intended to consult on the outstanding requests. Ofcom remains of the opinion that the issues under consideration are sufficiently complex that there is value in consulting with stakeholders to obtain views and comments that will help Ofcom in reaching its decision as to whether to agree, or not, to each request from BT. Although Section 155 of the Enterprise Act does not apply in this instance, Ofcom notes that the period stipulated for consultation in the Act is a minimum of 15 days. However, it is Ofcom's view that in this instance a four week consultation is appropriate.

2.12 Ofcom has not been able to agree with BT on a form for two of the requests identified in Exemptions Part 1 such that they can be included in this consultation. These two requests are:

- Initial wideband planning; and
- Inter-exchange capacity planning.

2.13 Initial wideband planning covers how capacity is planned on an end-to-end basis for new wideband circuits. Inter-exchange capacity planning covers how capacity for inter-exchange links is planned. Both of these activities are currently undertaken by teams located within BT Wholesale who have access to both Openreach and BT Wholesale Confidential Information.

⁸ <http://www.ofcom.org.uk/telecoms/btundertakings/exemptionsandvariations/BTE1.pdf>

⁹ <http://www.ofcom.org.uk/telecoms/btundertakings/exemptionsandvariations/letter20042.pdf>

¹⁰ <http://www.ofcom.org.uk/telecoms/btundertakings/exemptionsandvariations/ofcomresponse.pdf>

- 2.14 These requests raise important issues of principle as to the boundary between Openreach and BT Wholesale, and these are not addressed to Ofcom's satisfaction in the current proposals from BT. Ofcom is continuing to discuss these requests with BT and expects to consult on them, if appropriate, in the near future.

Section 3

Ofcom's reasoning with respect to the exemptions requests

Introduction

- 3.1 In this section Ofcom sets out its position in respect of each of the requests from BT for certain exemptions and agreements to its Undertakings under the Enterprise Act 2002, and the reasons why it has adopted the position it has. Ofcom, through this consultation, is inviting comments on the described positions from interested stakeholders.
- 3.2 The full text of BT's requests is reproduced in Annex 5 and the proposed exemptions and agreements wording to be signed by BT and Ofcom is set out in Annex 6. Respondents are strongly recommended to consider the text in Annex 5 before answering the questions which follow. The reasoning Ofcom puts forward in this section in respect of BT's requests is based on the information available to Ofcom at the time of publication and Ofcom reserves the right to change its position with respect to any request as a result of the consultation process or any other information that comes to light during the consultation. Any such change will be fully explained in the subsequent Statement due for publication in December. The wording in Annex 6 reflects Ofcom's current position in respect of the requests.
- 3.3 The Enterprise Act requires that Ofcom should "have regard to the need to achieve as comprehensive a solution as is reasonable and practicable to the adverse effect on competition". Ofcom's competition concerns were set out in its *Strategic Review of Telecommunications Phase 2 Consultation Document*¹¹. In considering the case for varying the Undertakings, Ofcom must consider whether this solution is materially and negatively affected by the variation in question. As stated in paragraph 2.11, Ofcom does not consider the proposed variation to be material and it therefore follows that the variation can not in any way materially affect the comprehensive solution that the Undertakings represent. Furthermore Ofcom considers that the variation will not have a negative impact on the comprehensive solution. In reaching this view and in considering the exemption requests within this Consultation Ofcom has considered the following factors where appropriate:
- whether there would be, or would likely be, harm to consumers if the exemption and/or agreement was granted or not granted due to, for instance, a reduction in effective competition or disruption to the services customers receive;
 - whether there would be demand from Communications Providers (other than BT) for an EOI product to which the exemption relates; and
 - the length of time for which the exemption and/or agreement will be granted and whether the amount of resource that would be needed to accelerate development of an EOI product is warranted balanced against other resource requirements (i.e. proportionality).

¹¹ http://www.ofcom.org.uk/consult/condocs/telecoms_p2/

- 3.4 Within this section 'Openreach' is used in place of Access Services (as is used in the Undertakings) as BT has since the acceptance of the Undertakings branded its Access Services division referred to in the Undertakings as Openreach.

Legacy products considered under Sections 5.46.1 and 5.46.2

- 3.5 These requests cover legacy products and services which currently consume inputs from Openreach on a non-EOI basis.

Request No. 1: ISDN and Highway conversion process

- 3.6 Currently an automated process is used when a customer on either ISDN or Highway requests to migrate to broadband supplied by BT (i.e. IPstream or Datastream). However, if the customer wishes to migrate to broadband supplied by a LLU operator then a different, inferior, cease-and-provide (i.e. non-EOI) process is used.
- 3.7 BT are proposing that as of 1 April 2007 an EOI process shall be used. An IBMC date is not relevant as this is a conversion process which will be used only when a line is converted upon customer request (i.e. not a migration of the installed base). Ofcom proposes to agree to the exemption request as drafted as it believes there is demand from other Communications Providers (CPs) for such a process and the RFS date is the earliest that can reasonably be expected given the time it takes to develop such a process.

Question 1: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of the ISDN and Highway conversion process? If you do not please explain why.*

Request No. 2: MegaStream Ethernet

- 3.8 There are currently two versions of this product: one which is supplied on an EOI basis (using equipment supplied by ADVA¹²) and a longer range version for which there is no EOI product available (using BT's ASDH2 technology). Within the current installed base the ADVA circuits outnumber the ASDH2 circuits by approximately 8 to 1, of these less than 3% of ASDH2 deployment is in situations where there is a distance issue.
- 3.9 BT do not propose to develop an EOI version of the ASDH2 product as this will be replaced by an EOI product based on 21CN. BT are proposing an RFS date of 1 October 2006 and IBMC date of 1 July 2010 for the installed base and orders pending on 30 September 2006 in respect of these products. Migration of each circuit will take place within 6 months of the relevant exchanges having been converted to 21CN, subject to customer agreement. After the RFS date all new supply will use EOI products.
- 3.10 Ofcom proposes to agree to the exemption request as drafted since, as stated above, in Ofcom's opinion the installed base is small relative to the installed base that uses the EOI product. Furthermore, the proportion of circuits supplied using ASDH2 will continue to decrease given that new supply will use the EOI product. Future long range ethernet products will be supplied on an EOI basis. Ofcom therefore believes the competitive impact of this exemption to be minimal. Ofcom further believes that the customer disruption that would be caused by a migration to an interim EOI product prior to a further migration to the 21CN EOI product would not

¹² <http://www.advaoptical.com/>

be proportionate relative to the small potential impact on competition and prefers to see Openreach's resources concentrated on the earliest possible introduction of the 21CN EOI product.

Question 2: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of MegaStream Ethernet? If you do not please explain why.*

Request No. 3: Featureline

- 3.11 In Exemptions Part 1, Featureline and Featurenet were combined. However, BT and Ofcom have agreed to split them in this consultation as they each address different issues. Featureline is used to provide PBX-like services to small sites and is hosted on a BT PSTN switch. BT are proposing a RFS date of 1 April 2008¹³ and an IBMC date of 1 July 2010¹⁴. Featureline will consume the WLR3 product. The reason cited by BT for the deviation in RFS and IBMC dates compared to other retail products that consume WLR is the need to undertake systems development specific to Featureline and to ensure that all the relevant systems pieces are in place prior to the migration. This involves systems beyond those within Openreach supporting the WLR3 product.
- 3.12 Ofcom proposes to agree to the exemption request as drafted as it believes that as IP based services continue to be deployed over the WLR timeframe the competitive significance of Featureline will decline. Ofcom does not believe there is significant interest from other CPs in early availability of Featureline EOI products. Ofcom further believes that aligning Featureline with the Annex 1 dates for WLR would result in a significant adverse impact on the deployment of other WLR based products by diverting resources away from those WLR features important for competition into those related to Featureline with little positive competitive impact.

Question 3: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of Featureline? If you do not please explain why.*

Request No. 4: Featurenet

- 3.13 In Exemptions Part 1, Featurenet and Featureline were combined. However, BT and Ofcom have agreed to split them in this consultation as they each address different issues. Featurenet is similar to Featureline in that it is used to provide PBX-like services hosted on a BT PSTN switch, but is a more complex product aimed at multi-site installations and typically comprises several thousand lines spread over multiple sites. This complexity gives rise to particular problems with respect to migration to competing products.
- 3.14 BT's proposed exemption covers both the manner in which lines are tested and the physical delivery of those lines by Openreach. Openreach are proposing to develop a bulk lines EOI product with a RFS date of 1 July 2008 and an IBMC date of 1 July 2010 by which time BT expects Featurenet to have been replaced by a 21CN variant consuming EOI products from Openreach. BT also includes in its request a commitment to work with other CPs on identifying any changes which can be made to ease migration between suppliers. This review will begin in autumn 2006 and BT will implement earlier than the EOI dates wherever possible.

¹³ In Annex 1 of the Undertakings WLR RFS dates of 30 June 2007 for analogue, 30 September 2007 for ISDN2 and 31 December 2007 for ISDN30 are specified.

¹⁴ In Annex 1 of the Undertakings the phasing of migration is specified as follows: 30% of analogue WLR lines to be migrated by 30 June 2008, 70% by 30 June 2009 and 100% by 30 June 2010; IBMC for ISDN2 as 31 March 2009 and IBMC for ISDN30 as 31 December 2009.

- 3.15 Ofcom believes that the major barrier to competition in this area is the lack of effective migration processes and welcomes BT's commitment to a review of the problems faced by CPs in migrating customers from Featurenet to their own products. It is Ofcom's view that the migrations review must involve the range of interested parties from within the industry and must look at all the issues which currently present significant obstacles to migration, e.g. project management of multi-site migration and multi-site dial plans, to ensure the deployment by BT of effective migration processes.
- 3.16 Ofcom proposes to agree to the exemption request as drafted as whilst it believes the development of a bulk lines EOI product will provide an EOI product which other CPs can use to develop competitive products it is not aware of significant demand from CPs for such a product. Therefore, Ofcom would prefer to see Openreach resources concentrated in other areas where there are currently significant competition concerns and believes the RFS date for the bulk line facility is reasonable. Ofcom further believes that the IBMC date is reasonable to avoid undue customer disruption given the eventual migration to EOI products when available on 21CN.

Question 4: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of Featurenet? If you do not please explain why.*

Request No. 5: Openreach engineering services

- 3.17 Currently engineering services are supplied by Openreach to BT's downstream divisions in support of contracts for the management of privately owned network facilities. Openreach is considering offering these services on an EOI basis but in the interim BT is requesting an exemption related to existing contracts until they expire or are terminated. BT is also requesting an exemption until 1 January 2008 in respect of services supplied downstream but also supplied externally to allow the downstream services to be migrated on to an EOI basis.
- 3.18 Ofcom proposes to agree to the exemption request as drafted as it believes that BT should be allowed to honour existing contracts in order to minimise disruption to existing customers, but that any new contracts should be based on services supplied on an EOI basis in accordance with BT's Undertakings.

Question 5: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of Openreach engineering services? If you do not please explain why.*

Services supplied by Openreach to BT's downstream division(s), or vice versa, on a non-EOI basis

- 3.19 These requests broadly cover issues related to the location of a number of groups and functions within BT whose activity spans both Openreach and BT's downstream business activities.
- 3.20 Section 5.12 of the Undertakings states that Openreach shall control and operate the Physical Layer assets of BT's Access and Backhaul Networks. Section 5.13 states that Openreach shall not control and operate the Transmission Layer assets of BT's Access and Backhaul Networks. In practice Transmission Layer assets are controlled and operated by BT Wholesale. Section 5.39 states, subject to certain specified exceptions, that no employee of Openreach shall disclose Customer Confidential Information to Upstream or Downstream divisions of BT. Section 6.10

states, subject to certain specified exceptions, that no employee of BT Wholesale shall disclose Customer Confidential Information to Openreach or Downstream divisions of BT.

- 3.21 Three of the following requests (6 to 8) relate to teams whose activities span this boundary and/or who are party to Customer Confidential Information belonging to the other division. Where Ofcom decides that the most efficient solution, with respect to its criteria, is to agree to an exemption in respect of this either temporarily or permanently it has as a general principle adopted the view that if an individual is required to operate on assets belonging to both Openreach and a downstream division, or is required to access Confidential Information belonging to a division other than the one for whom they work, then it is better that the function is located in the upstream division rather than the downstream one. This ensures that an individual does not operate on products provided to, or have access to Customer Confidential Information of, their competitors.

Request No. 6: Engineering services in support of BT Global Services in particular geographical areas

- 3.22 In certain remote locations in the UK (i.e. the Scottish Islands and the Scilly Isles which together contain approximately 0.1% of the UK population) BT field staff have, for reasons of operational efficiency, generally operated across divisional boundaries. BT are requesting an exemption up to and including 31 March 2008 in respect of Openreach engineers supporting assets belonging to BT Global Services¹⁵. After this date BT Global Services will take over responsibility for supporting its own assets with its own field engineers.
- 3.23 Ofcom has already granted, in Exemptions Part 1, an exemption in respect of Openreach engineers operating on BT Retail payphones up to and including five years from the date of the statement. However, Ofcom believes there to be greater competition in the markets in which BT Global Services operates and believes that BT Global Services should assume responsibility for engineering services in relation to its own products and services at the earliest possible date. Given the time required for BT Global Services to build this capability in these remote locations Ofcom believes the proposed date to be the earliest practical date and, therefore, proposes to agree to this exemption request as drafted.

Question 6: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of engineering services in support of BT Global Services in particular geographical areas? If you do not please explain why.*

Request No. 7: Private Circuits

- 3.24 A Private Circuit, including a Partial Private Circuit (PPC), is not supplied on an EOI basis and is supplied by BT Wholesale. Whenever a Private Circuit is delivered or serviced at a customer site the work of an Openreach engineer will typically cover both Openreach assets and the NTE, which is an asset of BT Wholesale.

¹⁵ There is an existing temporary exemption as part of the exchange of letters between Ofcom and BT in respect of Openreach engineers supporting BT Global Services in the Scottish Highlands up to and including 22 December 2006.

- 3.25 BT are requesting an exemption for a permanent period in respect of Private Circuits¹⁶ to allow Openreach engineers to provision, repair, maintain and upgrade Private Circuit equipment belonging to BT Wholesale.
- 3.26 Ofcom believes that there are essentially three ways in which the provisioning, repair, maintenance and upgrade of Private Circuit equipment belonging to BT Wholesale could be accomplished:
- use two separate teams – one in Openreach working on Openreach assets and one in BT Wholesale working on BT Wholesale assets;
 - use a single team located in BT Wholesale; or
 - use a single team located in Openreach.
- 3.27 Within the narrow scope of what these teams do, Ofcom believes that the first of these would lead to operational inefficiency, and increased cost and disruption for customers. It is Ofcom's view, therefore, that a single team should be used. If the team were located in BT Wholesale then this would contravene the principle highlighted above in 3.21 and Ofcom's preferred option is therefore for a single team, located in Openreach.
- 3.28 Ofcom proposes to agree to the exemption request as drafted as it believes that this is in the interest of consumers and has no material impact on competition given that the same services will be supplied as inputs into both retail Private Circuits and wholesale Partial Private Circuits. Ofcom believes that the issues underlying this request are unique to the situation where an upstream product is supplied on a non-EOI basis.

Question 7: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of Private Circuits? If you do not please explain why.*

Request No. 8: 21CN network uplift programme

- 3.29 During the 21CN migration there is a large amount of non-standard work required in each exchange to ready it for 21CN. This includes work on both Openreach and BT Wholesale assets and includes a number of activities related to maintenance and preparation of the main distribution frame. Further details can be found in BT's request (see Annex 5). The nature of the work means that there will be some services supplied by Openreach to BT Wholesale which will only be used during the 21CN migration programme and which BT does not intend to offer to other CPs on an EOI basis.
- 3.30 BT are requesting an exemption covering the provision by Openreach to BT Wholesale of engineering services on a non-EOI basis under the 21CN uplift programme, and access by Openreach to BT Wholesale systems, and vice versa, in support of the 21CN uplift programme. The exemption expires six months after the last exchange is migrated to 21CN which will be no later than 31 December 2011.
- 3.31 Ofcom proposes to agree to the exemption request as drafted as it believes this is a once-only programme of necessary engineering within each exchange. Ofcom does

¹⁶ The term "Private Circuit" is not defined in the Undertakings but a definition, based on that for a PPC in the Undertakings, is included in the proposed exemptions and agreements wording in Annex 6.

not, therefore, believe it is reasonable to require Openreach to provide these bespoke engineering services on an EOI basis. Ofcom further believes that due to their custom nature it may not be possible to use the same processes should another CP wish to undertake something similar and that, therefore, there would be little value in making these services available on an EOI basis. Ofcom does believe, however, that should another CP request something similar then Openreach should be willing to consider the development of suitable processes as has been done for BT Wholesale in respect of 21CN. Ofcom does not believe there will be any negative impact on competition from this exemption as it does not, Ofcom believes, confer any competitive advantage on BT relative to its competitors and believes that it is important to ensure a seamless migration to 21CN to minimise disruption to the voice service provided to customers.

Question 8: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of the 21CN network uplift programme? If you do not please explain why.*

Request No. 9: LLU Associated Services in relation to BT's 20CN DSLAMs

- 3.32 This request combines two of the requests listed in Section 4 of Exemptions Part 1: HDFs in the 20CN and LLU associated services.
- 3.33 Currently BT Wholesale employs non-EOI processes and products in support of its 20CN DSLAM¹⁷ installations in BT exchanges. Specifically, BT Wholesale does not use a handover distribution frame (HDF) between its own DSLAM and the Openreach main distribution frame (MDF), does not use the same tie cables to connect its DSLAM to the MDF and uses alternative configurations with respect to its broadband test equipment. With the advent of 21CN BT Wholesale will consume EOI products from Openreach.
- 3.34 In its exemption request BT is proposing to use EOI tie cables and a HDF on certain new DSLAM installations from 1 July 2007. BT estimates that in excess of 95% of new DSLAM installations after 1 July 2007 will qualify as installations to be installed with an HDF. Already installed equipment as of that date, together with any extensions to existing equipment, would continue to be operated and maintained on a non-EOI basis until it is replaced by 21CN. BT is further proposing that service layer testing on some of its 20CN DSLAM installations (those in which a Test Access Matrix (TAM) is not used and require the use of hand-held test equipment) will be conducted on a non-EOI basis by Openreach until: it is replaced by 21CN, it is redesigned to avoid the need to touch the main distribution frame or it is provided on an EOI basis should there be reasonable demand from other CPs.
- 3.35 Ofcom proposes to agree to the exemption request as drafted as it believes requiring BT Wholesale to install HDFs, tie cables and TAMs (if appropriate) for those DSLAMs already installed as of the EOI date would involve considerable expense which would cause considerable customer disruption and would unnecessarily raise prices to consumers given that it would only be for an interim period prior to 21CN deployment. The use of HDFs and tie cables on an EOI basis from June 2007 whilst not negating the cost and quality advantage BT Wholesale enjoys on its existing installations would ensure that it is capped to those existing installations and that for new installations BT Wholesale will deploy DSLAMs using the same products and processes in respect of tie cables and HDFs as are used by other CPs, thereby

¹⁷ A DSLAM (Digital Subscriber Line Access Multiplexer) is used to support DSL (i.e. Broadband) services.

minimising adverse competitive impact prior to the full adoption of EOI with 21CN. In respect of service layer testing Ofcom believes that as BT Wholesale will move to EOI products with the deployment of 21CN the development of an EOI service layer testing process would be disproportionate in the absence of reasonable demand from other CPs.

Question 9: *Do you agree that Ofcom should agree to this request from BT for an exemption in respect of LLU Associated Services in relation to BT's 20CN DSLAMs? If you do not please explain why.*

Downstream products which require a fibre-based input from Openreach and for which BT is proposing an intermediate EOI product

- 3.36 BT has requested three separate exemptions related to certain products it currently supplies which are fibre-based. All of these products have one feature in common: they are all essentially analogue services (even though the analogue signal might itself be modulated with a digital one). Because of this they each rely on direct access to fibre and cannot in their current form consume any of the digital services provided by Openreach such as WES. Openreach currently provides fibre as an upstream input into these products and does so on a non-EOI basis.
- 3.37 Ofcom recognises that the most obvious upstream input into these services appears to be 'dark' fibre. However, Ofcom believes that the availability of dark fibre on an EOI basis as a tactical response to the issues outlined here has the potential to undermine investment in infrastructure across a range of wholesale and retail services beyond the ones identified in these requests. This is possible because the scale and ubiquity of Openreach's network is greater than any competitor CP's network and it is highly likely therefore that in the majority of cases it would be more economic for a CP to lease fibre from Openreach than to build their own, or possibly than to use their existing access and core infrastructure. Additionally, those CPs who have not built their own network could rapidly establish one using Openreach fibre undermining the investment of those CPs who have invested significant amounts over a number of years in their own networks. Ofcom further believes that with the availability of dark fibre from Openreach there would be little incentive to purchase any of the other Openreach fibre based connectivity products which would undermine the policy highlighted by Ofcom in the Telecommunications Strategic Review, i.e. the principle that regulation should promote competition between competing infrastructures as deep in the network as such competition was likely to be effective and sustainable¹⁸. For these reasons Ofcom does not believe that it is appropriate for Openreach to provide dark fibre on an EOI basis as an upstream input into these products.
- 3.38 Ofcom has therefore sought, with BT, to determine if it is possible to migrate these fibre-based products to products which can consume an intermediate EOI product from Openreach which is downstream of dark fibre. BT believes this is possible and has written its exemption requests accordingly. However, for some of these products the migration to intermediate digital products (such as WES) necessarily requires some elimination of functionality and Ofcom is concerned whether the resulting, more limited, products will continue to address the requirements of customers.

¹⁸ See Section 4 of Ofcom's "Final Statements on the Strategic Review of Telecommunications, and undertakings in lieu of a reference under the Enterprise Act 2002", published 22 September 2005: http://www.ofcom.org.uk/consult/condocs/statement_tsr/statement.pdf

- 3.39 Whilst accepting that the solutions proposed by BT have undergone rigorous analysis Ofcom has decided to maintain a neutral position with respect to these requests and is not currently minded one way or the other whether to agree to BT's requests. Ofcom is actively seeking comment from stakeholders not only on the requests themselves but also on the proposed EOI products to inform its view.

Request No. 10: Redcare CCTV

- 3.40 This exemption request covers products which provide communication links between remote CCTV cameras and a central control room. The main customers are organisations such as local authorities, security services and the police. Currently the links carry analogue CCTV signals directly between the camera and the control room.
- 3.41 BT is proposing that as of 1 October 2007 (the RFS date) a digital EOI product would be available from Openreach which could be used as an input into a downstream digital CCTV product. BT has stated that an IBMC date of 1 July 2010 is required to cover existing contractual commitments and allow sufficient time for existing customers to migrate to an EOI product.
- 3.42 Ofcom is aware that in the past there has been some reticence amongst customers to move to digital CCTV services due to uncertainty over the acceptability to the Courts of evidence based on pictures transmitted digitally. However, BT has expressed to Ofcom its view that as customers move through their equipment renewal cycles they will seek to replace their existing analogue systems with digital which is gaining increasing acceptance amongst customers.

Question 10: *What barriers, if any, do you believe there are to acceptance of digital transmission technology in support of public CCTV systems? Are there any areas now in which analogue services are used in support of CCTV that could not be migrated to digital transmission? What should happen if, by the IBMC date, customers remain reluctant to move to the digital replacement product(s)? Please fully explain your answer.*

Question 11: *Do you believe that Ofcom should agree to this request from BT for an exemption in respect of Redcare CCTV? If you do not please explain why.*

Request No. 11: Media and Broadcast

- 3.43 This exemption request covers a variety of products which provide dedicated communication links for TV and film production and distribution. The main customers are broadcasters and the media industry. Currently the product mix includes both high bandwidth analogue and digital services provided predominantly over fibre. Some services have dedicated facilities which are only used intermittently.
- 3.44 BT is proposing to develop a digital version of Openreach's WES product specifically tailored to media use. BT is proposing a RFS date of 1 January 2008 and an IBMC date of 1 July 2010.
- 3.45 Ofcom believes that it may not be possible to fully emulate the performance and functionality of the existing analogue products using the proposed EOI digital products as an upstream input. Ofcom is therefore concerned over the acceptability to customers of digital versions of their existing analogue products.

Question 12: *Are there any existing products available from BT Media and Broadcast that you believe are not substitutable by variants based on BT's proposed EOI product? If so, what are the issues preventing migration? What should happen if, by the IBMC date, customers remain reluctant to move to the digital replacement product(s)? Please fully explain your answer.*

Question 13: *Do you believe that Ofcom should agree to this request from BT for an exemption in respect of Media and Broadcast? If you do not please explain why.*

Request No. 12: Managed radio communication services

- 3.46 This exemption request covers products which provide a point-to-point link over dedicated fibre between a radio base station and a remote antenna. BT is proposing to make these products available from Openreach on an EOI basis with a RFS date of 1 October 2007 and an IBMC date of 1 April 2008.
- 3.47 Ofcom believes that it may not be possible to fully emulate the performance and functionality of the existing products using the proposed EOI products as an upstream input. Ofcom is therefore concerned over the acceptability to customers of downstream products based on the EOI products.

Question 14: *What do you believe are the implications, if any, for users of these managed radio communication services products of a migration to products based on BT's proposed EOI product? Please fully explain your answer.*

Question 15: *Do you believe that Ofcom should agree to this request from BT for an exemption in respect of managed radio communication services? If you do not please explain why.*

Downstream WDM products

- 3.48 BT has requested an exemption for its Wavestream portfolio of products. Like the previous three fibre-based products, the Wavestream portfolio is also essentially an analogue service in that it relies on the transmission of multiple wavelengths of light directly into the fibre, each modulated with another signal, and cannot consume any of the digital services provided by Openreach such as WES. However, unlike the previous fibre-based products it is not possible to conceive of an intermediate product between the fibre and Wavestream. Openreach currently provides fibre as an upstream input into Wavestream and does so on a non-EOI basis.
- 3.49 Ofcom recognises that the most obvious upstream input into Wavestream appears to be 'dark' fibre. However, as stated above Ofcom believes that the availability of dark fibre on an EOI basis as a tactical response to the issues outlined here has the potential to undermine investment in infrastructure across a range of retail services beyond the ones identified in these requests. Additionally, Ofcom believes that for Wavestream the issue is more complex as Wavestream itself has the potential, like dark fibre, to undermine investment in infrastructure across a range of retail services by making available, on cost-oriented terms, high capacity services which can be used to provide both backhaul and core network conveyance in a manner similar to dark fibre. Therefore, for the same reasons as cited above in relation to dark fibre Ofcom does not believe that it is appropriate for Openreach to provide medium/long haul wavelength services on an EOI basis.
- 3.50 Ofcom believes that the solution BT is proposing represents a sensible compromise but Ofcom still has concerns with BT's proposed request, has decided to maintain a

neutral position with respect to this request and is not currently minded one way or the other whether to agree to it. Ofcom is actively seeking comment from stakeholders on BT's proposal.

Request No. 13: Wavestream

- 3.51 This exemption request covers very high bandwidth products which provide dedicated wavelengths for the exclusive use of the customer. The customer can choose the service that will be carried over each wavelength (predominantly high speed data services) and can add additional wavelengths and, hence, capacity at relatively low incremental cost and with short provisioning lead times. The service is split according to the length of the circuit: 'Connect' offers service up to 35km; 'Regional' is an extended reach version of Connect; and National provides nationwide coverage. Connect and Regional employ a dedicated fibre path whereas National only employs a dedicated fibre path as far as BT's core WDM network whereupon the wavelength is routed over shared fibres.
- 3.52 BT is proposing that products up to 35km (Wavestream Connect) are moved into, and thus provided by, Openreach until Openreach launch a suitable replacement WES/WEES EOI product (which will have a RFS date of 1 October 2007 and an IBMC date of 1 January 2010). For Wavestream Regional and National BT proposes a permanent exemption but with a restriction to Wavestream End-Users. The exemption in respect of Regional and National is to be reviewed by Ofcom and BT at some time prior to 30 June 2010. End-User restriction with regard to WES/WEES products is currently in discussion with Openreach separately to the exemption requests. Openreach's current expectation is that the results of that discussion would also apply to the new EOI Wavestream Connect offering.
- 3.53 Ofcom believes that unlike the other fibre-based products the Wavestream products present an additional potential to undermine investment in infrastructure across a range of retail services in that the Wavestream products themselves, whilst downstream of fibre, could be used as an alternative to self-provided backhaul or core network conveyance thereby undermining incentives to invest in infrastructure. Additionally, as WDM products can be used to support ethernet there is also the potential for such services, if available on an EOI basis, to undermine the WES portfolio of products which are available from Openreach.
- 3.54 Given these concerns, Ofcom believes that it is appropriate to restrict the availability of EOI versions of Wavestream to short haul versions (i.e. to Wavestream Connect) and use of medium and long haul versions to End-Users only (i.e. not for use by CPs as an alternative to self-provided fibre for use in backhaul and core network conveyance). Ofcom therefore believes that the framing of the End-User restrictions is crucial to the acceptability, or otherwise, of this request. In particular, it should not be possible for downstream divisions of BT to use these services as an upstream input into downstream retail – in particular, ethernet – services thereby bypassing Openreach's access and backhaul portfolio. Ofcom would welcome views from stakeholders as to what form these restrictions should take.
- 3.55 Ofcom is aware, however, that the end-to-end nature of Wavestream Regional and National means that other CPs would find it difficult to replicate this product commercially and/or technically given the need to either deploy end-to-end fibre or to use Wavestream Connect 'tails' which would increase the equipment count and cost relative to BT's Regional and National products. For this reason Ofcom believes it is important to limit this exemption and provide an opportunity to review. The date of 30

June 2010 was chosen by Ofcom to align with BT's 21CN deployment which may make alternative arrangements possible.

Question 16: *What do you believe are the implications, both positive and negative, with respect to competition of BT making available the Wavestream Connect product on an EOI basis? Please fully explain your answer.*

Question 17: *What do you believe the EOI WES/WEES product which replaces Wavestream Connect should be? What form do you believe the End-User restrictions on Wavestream Connect, Regional and National should take? Please fully explain your answer.*

Question 18: *Do you believe it will be possible to replicate, commercially and technically, the Wavestream Regional and National products using your own network infrastructure combined possibly with the Connect product? If not, what in your view are the barriers to replicability? Please fully explain your answer.*

Question 19: *Do you believe that Ofcom should agree to this request from BT for an exemption in respect of Wavestream? If you do not please explain why.*

Annex 1

Responding to this consultation

How to respond

- A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 15 November 2006**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <http://www.ofcom.org.uk/consult/condocs/btrequests/howtorespond/form>, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response (see Annex 3), to indicate whether or not there are confidentiality issues. This response cover sheet is incorporated into the online web form questionnaire.
- A1.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email graeme.hodgson@ofcom.org.uk attaching your response in Microsoft Word format, together with a consultation response cover sheet.
- A1.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.
- Graeme Hodgson
Floor 4
Ofcom
Riverside House
2A Southwark Bridge Road
London SE1 9HA
- Fax: 020 7783 4109
- 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.

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 Graeme Hodgson on 020 7783 4417.

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 (when respondents confirm on their response coversheet that this is acceptable).

- A1.9 All comments will be treated as non-confidential unless respondents specify that part or all of the response is confidential and should not be disclosed. Please place any confidential parts of a response in a separate annex so that non-confidential parts may be published along with the respondent's identity.
- A1.10 Ofcom reserves its power to disclose any information it receives where this is required to facilitate the carrying out of its statutory functions.
- A1.11 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use in order to meet its legal requirements. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/about/account/disclaimer/>

Next steps

- A1.12 Following the end of the consultation period, Ofcom intends to publish a statement in December 2006.
- A1.13 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

- A1.14 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.
- A1.15 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.
- A1.16 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 version for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.
- A2.5 We will normally allow ten weeks for responses to consultations on issues of general interest.
- A2.6 There will be a person within Ofcom who will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organizations interested in the outcome of our decisions. This individual (who we call the 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. This may be because a particular issue is urgent. If we need to reduce the amount of time we have set aside for a consultation, we will let those concerned know beforehand that this is a 'red flag consultation' which needs their urgent attention.

After the consultation

- A2.8 We will look at each response carefully and with an open mind. 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, we will publish all consultation responses in full on our website, www.ofcom.org.uk, unless a respondent specifies that all or part of their response is confidential. We will also refer to the contents of a response when explaining our decision, without disclosing the specific information that you wish to remain confidential.
- 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 by allowing you to state very clearly what you don't want to be published. We will keep your completed coversheets confidential.
- 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 confidential parts of your response in a separate annex to your response, so that they are clearly identified. 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 coversheet 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

What do you want Ofcom to keep confidential?

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

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response. It can be published in full on Ofcom's website, unless otherwise specified on this cover sheet, and I authorise Ofcom to make use of the information in this response to meet its legal requirements. 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

Question 1: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of the ISDN and Highway conversion process? If you do not please explain why.

Question 2: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of MegaStream Ethernet? If you do not please explain why.

Question 3: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of Featureline? If you do not please explain why.

Question 4: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of Featurenet? If you do not please explain why.

Question 5: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of Openreach engineering services? If you do not please explain why.

Question 6: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of engineering services in support of BT Global Services in particular geographical areas? If you do not please explain why.

Question 7: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of Private Circuits? If you do not please explain why.

Question 8: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of the 21CN network uplift programme? If you do not please explain why.

Question 9: Do you agree that Ofcom should agree to this request from BT for an exemption in respect of LLU Associated Services in relation to BT's 20CN DSLAMs? If you do not please explain why.

Question 10: What barriers, if any, do you believe there are to acceptance of digital transmission technology in support of public CCTV systems? Are there any areas now in which analogue services are used in support of CCTV that could not be migrated to digital transmission? What should happen if, by the IBMC date, customers remain reluctant to move to the digital replacement product(s)? Please fully explain your answer.

Question 11: Do you believe that Ofcom should agree to this request from BT for an exemption in respect of Redcare CCTV? If you do not please explain why.

Question 12: Are there any existing products available from BT Media and Broadcast that you believe are not substitutable by variants based on BT's proposed EOI product? If so, what are the issues preventing migration? What should happen if, by the IBMC date, customers remain reluctant to move to the digital replacement product(s)? Please fully explain your answer.

Question 13: Do you believe that Ofcom should agree to this request from BT for an exemption in respect of Media and Broadcast? If you do not please explain why.

Question 14: *What do you believe are the implications, if any, for users of these managed radio communication services products of a migration to products based on BT's proposed EOI product? Please fully explain your answer.*

Question 15: *Do you believe that Ofcom should agree to this request from BT for an exemption in respect of managed radio communication services? If you do not please explain why.*

Question 16: *What do you believe are the implications, both positive and negative, with respect to competition of BT making available the Wavestream Connect product on an EOI basis? Please fully explain your answer.*

Question 17: *What do you believe the EOI WES/WEES product which replaces Wavestream Connect should be? What form do you believe the End-User restrictions on Wavestream Connect, Regional and National should take? Please fully explain your answer.*

Question 18: *Do you believe it will be possible to replicate, commercially and technically, the Wavestream Regional and National products using your own network infrastructure combined possibly with the Connect product? If not, what in your view are the barriers to replicability? Please fully explain your answer.*

Question 19: *Do you believe that Ofcom should agree to this request from BT for an exemption in respect of Wavestream? If you do not please explain why.*

Annex 5

BT's exemption, variation and agreements requests

Request number: 1

Product: ISDN and Highway conversion process

Legal basis: 5.46.2a)

1. Product description and reasons for request

This request concerns the conversion process to enable an end-user to go from ISDN or Highway to PSTN/ WLR and BT IPstream/BT Datastream. If an ISDN/Highway customer wants to move to broadband, their line has to be converted back to PSTN before broadband can be provided. In order to provide a good customer experience BT has developed an automated conversion process that allows the PSTN and ADSL provision field and frame activities to be coordinated to minimise downtime and avoid the (small) risk that the PSTN is provided and the line is subsequently found not to support broadband.

The processes are equivalent for BT and other Communications Providers (CPs) vis-à-vis any given end-product (PSTN or WLR and BT IPstream / BT Datastream ADSL), but the processes are different between these products. In other words, any differences that may exist are not a case of "BT vs external customers" but, rather, of differences according to whether the end-user is switching to a CP buying BT IPstream / BT Datastream or to an LLU Operator. As a result, it is currently easier and quicker for an end-user to move from their current ISDN/Highway service to a BT Wholesale broadband service (whether bought from BT Retail or another CP) than to move to a broadband service offered by a CP who uses an unbundled line.

Specifically, BT IPstream / BT Datastream ADSL currently has a fully automated order handling process to convert end-users from BT Retail's ISDN2/Home or Business Highway products to broadband (SMPF), whereas a cease and subsequent provision process must be followed on LLU. The automated process to convert from ISDN or Highway to broadband was developed to avoid having to do two sets of transition/migration processes (ISDN/Highway to PSTN, PSTN to broadband) and to avoid incurring two sets of costs and two engineer visits.

BT Retail's Residential ISDN2 and Home Highway product were withdrawn from new supply in September 2005. The volume of conversions to broadband is falling rapidly.

BT has decided to develop and put into place a new EOI process for any customer wishing to convert ISDN/Highway lines to any broadband, whether BT IPstream, BT Datastream or an unbundled line with non-BT broadband.

This request seeks an exemption from EOI under section 5.46.2a) of the Undertakings to enable BT to continue to use its existing ISDN/Highway conversion processes for an initial transitional period up to and including 31 March 2007 when a new EOI process (including relevant systems interfaces) will have been developed and launched for all CPs. The existing process will cease when the new EOI process is launched.

2. Legal basis, scope and duration

- Legal basis: section 5.46.2a)
- Scope: exemption from section 5.46.1
- Duration: exemption up to and including 31 March 2007, the day after which will serve as an RFS date.

3. Identification of the products involved

The BT IPstream products involved are:-

- BT IPstream 500
- BT IPstream S products
- BT IPstream Home products
- BT IPstream Office products
- BT IPstream Max and Max Premium products

The BT Datastream products involved are:

- BT Datastream Office products
- BT Datastream Max and Max Premium products

The specifications of the BT Wholesale broadband products listed above can be found at:

http://www.btwholesale.com/application?pageid=community_hub&nodeId=navigation/node/d ata/Broadband_Community/navNode_Broadband_Community

More technical interface specifications can be found at:

<http://www.sinet.bt.com/>

Information regarding the ISDN and Highway products can be found at:

<http://www.bt.com/homehighway/>

<http://www.btbroadbandoffice.com/linesandcalls/ISDN2e>

<http://www.btbroadbandoffice.com/linesandcalls/ISDN30>

4. Description of the way in which the product is provided on terms other than EOI

IPstream ADSL currently has a fully automated order handling process to convert end-users from BT Retail's ISDN2/Home or Business Highway products to broadband (SMPF), whereas a different less automated process must be followed on LLU.

Because IPstream ADSL currently has a fully automated order handling process to convert end-users from BT Retail's ISDN2/Home or Business Highway products to broadband (SMPF), it is currently easier and quicker for an end-user to move from their current ISDN/Highway service to a BT Wholesale broadband service (whether bought from BT Retail or another CP) than to move to a broadband service offered by a CP who uses an unbundled line. There has been no demand from LLU Operators to provide, or develop, such a process for LLU. BT has however decided that it will develop and launch a new EOI process (including relevant systems interfaces) for all CPs to facilitate ISDN/Highway to broadband conversion.

5. Description of the solution proposed

As noted above, IPstream ADSL currently has a fully automated order handling process to convert end-users from BT Retail's ISDN2/Home or Business Highway products to broadband (SMPF), whereas a different less automated process must currently be followed on LLU. BT will develop and launch a new EOI process (including relevant systems interfaces) for all CPs wishing to convert ISDN/Highway lines to any broadband, whether BT IPstream, BT Datastream or an unbundled line with non-BT broadband. BT proposes to launch the new EOI process and relevant systems interfaces by 1 April 2007.

6. Justification for the exemption and impact on CPs

There has been no demand from LLU Operators to provide, or develop, such a process for LLU. BT believes that one of the reasons for this is that the conversion would require an Openreach engineer to visit the end-user premises, thereby incurring a customer visit charge which would be additional to the standard SMPF charge.

The requested exemption will have no material impact given its transitional nature and short duration.

Request number: 2

Product: MegaStream Ethernet

Legal basis: 5.46.2a)

1. Product description and reasons for request

This request concerns Openreach inputs into the current retail MegaStream Ethernet service.

Two forms of technology underpin the current retail product: Access SDH Stage 2 (ASDH2) and ADVA.

The former, which can be used for longer (greater than 15km) circuits, is not currently supplied externally and providing it on an Equivalence of Inputs basis would be impracticable and disproportionately costly and would adversely impact end users. ASDH2 was developed in 2003/4 as a forerunner to BT's NGN 21CN deployment.

ADVA-based inputs from Openreach to the retail MegaStream Ethernet service are provided on an Equivalence of Inputs basis.

BT requests an exemption under section 5.46.2a) of the Undertakings to enable Openreach to continue supporting the current ASDH2-based inputs to the retail MegaStream Ethernet services for the installed base, and orders pending at the 30 September 2006 WES RFS date, without the relevant Openreach inputs having to be made available on an external basis. New supply will use the WES EOI product for all new provision orders placed after 30 September 2006.

This exemption is to cover the transitional period until the 21CN successor MegaStream Ethernet service is available (this is being prioritised as part of BT's 21CN development) and the installed base has been commercially migrated to the new product no later than 30 June 2010, the day after which will serve as an IBMC date by which MegaStream Ethernet will consume the Openreach EOI input.

2. Legal basis, scope and duration

- Legal basis: section 5.46.2a)

- Scope: exemption from section 5.46.1

- Duration: exemption up to and including 30 September 2006, the day after which will serve as an RFS date, and thereafter only for the installed base and orders pending on 30 September 2006, up to and including 30 June 2010, the day after which will serve as an IBMC date. If completion of migration to BT's NGN 21CN is not going to be achieved by 30 June 2010, BT and Ofcom may agree a later IBMC date.

3. Identification of the products involved

There are two types of Openreach input into the BT retail MegaStream Ethernet product. These can be defined as:

- Release 1.0 & 2.0 using ADVA technology (as used for SHDS)
- Release 3.0 & 4.0 using ASDH2 technology for Access

The former, ADVA type, will be provided by the Openreach WES product from 30 September 2006. The ASDH2 solution is often applicable to longer range requirements (in excess of 15Km) although there are very few places where such requirements arise. It also allows re-use of the existing fibre delivery to the customer and therefore minimises fibre usage in the access loop.

The specifications of these products can be found at:

http://www.btwholesale.com/application?origin=prod_az_list.jsp&event=bea.portal.framework.internal.refresh&pageid=product&nodeId=navigation/node/data/Products/Data/MegaStreamEthernet/navNode_MegaStreamEthernet

http://www2.bt.com/btPortal/application?origin=mb_subcat_prod.jsp&event=bea.portal.framework.internal.portlet.event&pageid=mb_pns_catalogue&portletid=mb_pns_catalogue&wfevent=link.Product&siteArea=mb.corp&productDetail=products/megastream_ethernet.xml

4. Description of the way in which the product is provided on terms other than EOI

Current delivery of the access component of a MegaStream Ethernet delivered using ASDH2 technology is not EOI and BT believes that it would not be practicable to make it EOI. This arises because the access fibre has to terminate directly onto the ASDH2 terminating port with aggregation taking place within the ASDH2 equipment. As a result, there is no clearly defined termination point for the WES interface. To achieve such an interface would require the separation of the aggregation from the ASDH2 box which would introduce additional complexity and therefore cost into the design. BT considers that this would be disproportionate when it would only be a transitional solution until the product is migrated as part of implementation of BT's NGN 21CN. In addition, early withdrawal of the ASDH2 variant would adversely impact end users who have purchased expensive terminating equipment which would become redundant if they were required to migrate to an ADVA delivered solution.

5. Description of the solution proposed

The functionality required to support MegaStream Ethernet-type services is available to all Communications Providers (CPs) from 30 September 2006 using the Openreach WES products which utilise ADVA technology.

ASDH2 based services for the installed base and orders in hand at the RFS date of the EOI WES product will continue to be supported on such technology until they are migrated onto a successor 21CN EOI solution.

BT is committed to launch a MegaStream Ethernet equivalent service on 21CN currently referred to as Harmonised Ethernet Release 1.0 in March/April 2007. This solution will not provide the full national coverage of ASDH2 as it is a solution connecting EOI WES accesses to Metro switches of which there are 106 planned.

To get the geographical coverage required and give full national coverage there is a need to utilise the rest of the 21CN architecture which includes accesses via MSANs. Migration of the installed base will commence once the serving and terminating exchanges for the service have been fully migrated to 21CN and will take place within 6 months of this subject to customer agreement, and all migration will be completed by no later than 30 June 2010. If completion of migration to BT's NGN 21CN is not going to be achieved by 30 June 2010, BT and Ofcom may agree a later IBMC date.

6. Justification for the exemption and impact on CPs

The exemption is justified on the grounds of practicability given the disproportionality and disruption that would be caused by withdrawal of the ASDH2 supported solution for the installed base of customers.

Given the current availability, and future development, of WES services from the Openreach portfolio which provide the requisite functionality, and early migration to 21C solutions, any adverse impact on CPs is expected to be minimal at most.

Request number: 3

Product: Featureline

Legal basis: 5.46.1g)

1. Product description and reasons for request

BT Retail's Featureline services enable small to medium sized organisations to link together a number of lines serving separate premises such that they behave in a similar fashion to the way a single site PBX operates.

The Featureline products currently utilise BT PSTN exchange line and digital access inputs from Openreach, in accordance with section 5.46.1d), to which BT Wholesale adds functionality. This will need to change as Openreach meets the RFS dates for WLR. BT proposes to deliver Featureline in future by using WLR3 as the Openreach EOI input, to which BT Wholesale will add Featureline functionality (without reconfiguring or modifying the WLR3 line in any way).

For the reasons set out below, BT will not be able to offer Featureline services which take WLR3 as their input from the WLR3 EOI RFS dates. An exemption is therefore requested under section 5.46.1g) to enable Openreach to continue to supply the same inputs into the Featureline product portfolio as are currently provided without these inputs needing to be productised or provided externally, and to do so using the same processes as currently employed.

The exemption also covers the need for BT Wholesale and BT Retail, as part of the existing processes, to have access to Openreach systems until the proposed RFS date and thereafter only for the installed base until the IBMC date.

This exemption is necessary to enable BT to fulfil ongoing requirements with existing Featureline customers.

2. Legal basis, scope and duration

- Legal basis: section 5.46.1(g)

- Scope: exemption from section 5.46.1

- Duration:

- From the WLR RFS dates set out in Annex 1, paragraphs 1, 2 and 3, of the Undertakings up to and including 31 March 2008, the day after which will serve as an RFS date (which is the date by which new Featureline customers shall consume WLR3 as the Openreach input into Featureline).
- From the WLR IBMC dates set out in Annex 1, paragraphs 1, 2 and 3, of the Undertakings and thereafter up to and including 30 June 2010, the day after which will serve as an IBMC date (which is the date by which the installed Featureline base shall consume WLR3 as the Openreach input into Featureline). Between 1 April 2008 and 30 June 2010, the installed base will progressively migrate to the new Featureline product, and the existing Openreach inputs and

processes will therefore continue for the non-migrated installed base only up to and including 30 June 2010.

3. Identification of the products involved

There are three product variants – Featureline, Featureline Compact and Featureline Corporate/Embark.

Featureline and Featureline Compact are single-site centrex solutions that offer similar functionality to a small telephone system. These services can accommodate up to a maximum of 60 extensions on each site. This includes call hunting and free short code dialling of extensions.

The Featureline Corporate / Embark product provides virtual private networks using centrex (Featureline) and digital (2M) access lines to enable customers with both large and very small sites to link together into a corporate telephone network. The customer receives a corporate dial plan to enable them to complete on and off-net calls with functionality that mirrors a PBX.

Further information about BT's Featureline portfolio can be found at:

http://www.productsupport.bt.com/fline/?com.bea.event.type=linkclick&oLName=link.searchresults&oLDesc=KB_904

4. Description of the way in which the product is provided on terms other than EOI

The Openreach inputs into Featureline products are not currently productised and externalised.

5. Description of solution proposed

BT is committed to the introduction of Featureline products that use Openreach EOI inputs and which do not require any modification or reconfiguration of the WLR3 line. However, as the designs of the current Featureline products were based on integrated systems and processes these will take time to adapt to use standard EOI inputs.

Delivery of a Featureline product portfolio which uses WLR3 as a standard Openreach EOI input with both analogue and digital options will be possible by 31 March 2008, the day after which will serve as an RFS date. The EOI ISDN30 product (which provides the digital access bearer) will be made available from 31 December 2007.

BT proposes to incorporate the migration of the existing Featureline customer base into the WLR programme as of 1 July 2010, the IBMC date (which is the date by which the installed Featureline base shall consume WLR3 as the Openreach input into Featureline).

The exemption also covers the need for BT Wholesale and BT Retail, as part of the existing processes, to have access to Openreach systems until the proposed RFS date for Featureline consuming WLR3 and thereafter only for the installed base until the Featureline

consuming WLR3 IBMC date. This will be done by having dedicated and ring-fenced teams within BT Wholesale and BT Retail having limited access to Openreach systems by way of specific user access profiles. Appropriate behavioural controls/training, access controls and audit trails will be put into place to support these arrangements. Only access to Openreach systems which is strictly necessary to deliver the existing Featureline portfolio until the RFS date, and thereafter for the installed based only until the IBMC date, will continue to be granted, and only for the sole purpose of delivering Featureline.

6. Justification for the exemption and impact on CPs

A time limited exemption is sought to allow sufficient time for BT to develop an alternative Featureline product which uses standard Openreach EOI inputs. The current Featureline solution was designed and based on integrated systems and processes that will take time to adapt to use EOI inputs. The key dependency is on new systems capabilities in BT Wholesale which will allow the equivalent use of WLR3 as an input to the creation of Featureline. The exemption covers the period up to availability of the systems and a short interval beyond to align the equivalent delivery of Featureline with that of Featurenet Embark, a product which is often bought with Featureline.

The exemption is necessary to enable BT to fulfil ongoing requirements with existing Featureline customers.

The markets in which Featureline operates are competitive and there are other centrex and PBX products that other Communications Providers (CPs) have access to as an alternative means of providing Featureline-like capabilities. The exemption request gives BT time to develop and implement systems supporting the equivalent use of WLR3 as an input. It does not delay or compromise the provision of any Openreach service to other CPs.

The transfer processes are being enhanced such that migration of a customer off Featureline to WLR will be a straightforward transfer.

Request number: 4

Product: Featurenet centrex copper delivery

Legal basis: 5.46.2 a), 18.1 and 5.12

1. Product description and reasons for request

This request concerns Openreach inputs into BT Wholesale to support the Featurenet product portfolio sold by downstream parts of BT, and the processes through which they are delivered and maintained. These Openreach inputs are not currently productised or externalised.

Featurenet is a centrex and VPN voice solution providing voice networks spanning multiple sites and offering functionality that would normally be associated with a PBX. Featurenet End-User customers are large and medium corporates and governmental organisations.

21CN infrastructure will underpin Featurenet services in the future.

BT Wholesale's input into Featurenet consists of platform activities plus a network provided by a mix of Partial Private Circuits (PPCs) and copper pairs from Openreach.

The copper pairs supplied by Openreach to BT Wholesale to support Featurenet are not currently productised or provided externally. The two main differences are that: -

- There are non-standard terminations at both ends.
- Featurenet testing sits on the BT Wholesale platform.

BT requests an exemption from section 5.46.1 under section 5.46.2a) and a variation through section 18.1 of section 5.12 and then agreement under the amended section 5.12 to enable Openreach to continue to supply the same inputs into BT Wholesale to support the Featurenet product portfolio without these inputs needing to be productised or provided externally, and to do so using the same processes as currently employed, including where this involves BT Wholesale carrying out activities that could be considered to fall within section 5.12.

2. Legal basis, scope and duration

- Legal basis: sections 5.46.2a), 18.1 and 5.12

- Scope: exemption from section 5.46.1 and variation and agreement under section 5.12

- Duration: exemption and variation up to and including 30 June 2008, the day after which will serve as an RFS date, and thereafter only for the installed base up to and including 30 June 2010, the day after which will serve as an IBMC date. If completion of migration to BT's NGN 21CN is not going to be achieved by 30 June 2010, BT and Ofcom may agree a later IBMC date.

3. Identification of the products involved

Openreach inputs into BT Wholesale to support the Featurenet product portfolio are copper pairs that are not currently productised or provided externally.

The downstream Featurenet products supported by BT Wholesale on the basis of these Openreach inputs are:

Featurenet 5000 - SRU/RSC delivered

Featurenet 5000 - B-B Mux delivered

Featurenet 5000 - ac15 delivered

Featurenet 5000i

Further details of the full Featurenet portfolio are to be found at:

http://www.serviceview.bt.com/list/current/docs/Featurenet.boq/1338.htm?com.bea.event.type=linkclick&oLName=link.searchresults&oLDesc=KB_748

4. Description of the way in which the product is provided on terms other than EOI

The Openreach inputs into BT Wholesale to support the Featurenet portfolio are not currently productised and externalised. In particular, there are a number of ways in which the current delivery and maintenance processes for these inputs are not externalised.

The key aspects which are not currently EOI are:

- 1. Featurenet testing.** Testing of Featurenet lines is performed from the DMS100 Featurenet switches. This test capability is an integrated one that tests both the copper and the services that run over it. This function is currently performed by BT Wholesale and BT Global Services, directing Openreach resources. The closest Openreach product for input for the majority of Featurenet access links would be MPF, which has its own line test capability. Deploying this additional, unnecessary, test capability would be costly and would require planned outages on all lines. However Openreach and BT Wholesale will examine the opportunity for moving the copper testing element into Openreach.
- 2. Introduction of NTE5.** A large percentage of the Featurenet lines are “multi lines per site” and terminated on an End-User’s own frame. To utilise the standard Openreach MPF product would require an NTE5 being introduced into each line resulting in some End-Users having to find space for hundreds of small white boxes as well as accepting interruption to their service.
- 3. Bulk Provision of End-User lines.** Openreach does not support the order and provision of more than four lines per order on the MPF product. Featurenet customers will typically have a requirement to provide 10s of lines to their sites.

In addition, under the existing delivery and maintenance processes, BT Wholesale carries out activities that may be considered to fall within section 5.12. Such activities include but are not limited to jumpering activities and fault reporting processes.

5. Description of the solution proposed

BT requests an exemption from section 5.46.1 under section 5.46.2a) and a variation through section 18.1 of section 5.12 and then subsequent agreement under the section as varied to enable Openreach to continue to supply the same inputs into BT Wholesale to support the Featurenet products without the inputs needing to be productised or provided externally, and to do so using the same processes as currently employed.

The request will enable:

- a) Openreach to continue to provide on current processes the existing inputs into BT Wholesale to support the Featurenet business up to and including 30 June 2008, the day after when BT will make available for new supply, on an equivalent basis, an Openreach bulk lines service which will form the input into BT Wholesale for the construction of Featurenet services.
- b) Openreach to maintain the installed customer base on the existing Featurenet products using existing processes until Featurenet customers migrate to a 21CN Featurenet successor by 30 June 2010 at the latest, the day after which will serve as an IBMC date.

For the purposes of this request new supply means supply to customers under a contract entered into after 30 June 2008, or the supply after that date of Featurenet service to existing customers on new sites. BT will endeavour to ensure the product developed by Openreach also supports the provision of new capacity to existing customers at existing sites, but that cannot at this stage be guaranteed.

6. Justification and impact on CPs

The request is necessary to enable BT to fulfil ongoing contractual requirements to existing Featurenet customers and to support new business during the development of and migration to interim 20CN and 21CN solutions using EOI inputs from Openreach.

There is a large number of competing business voice services offered by both BT and other suppliers to End-Users. Communications Providers (CPs) and Service Providers offering alternative solutions include C&W, NTL, COLT, Siemens, IBM Network Solutions Vanco, Affiniti and Vodafone. The exemption and variation are not expected to have a material adverse impact on this industry.

Concern has been expressed by some competing business voice service providers that the process of migrating a customer from a BT Featurenet solution to one provided by a competing provider is cumbersome and slow. As part of the development of the Openreach bulk lines service, BT will work with CPs to identify and resolve issues concerning migration from Featurenet. That process of review will begin in Autumn 2006, with a view to informing Openreach product development. To the extent that achievable improvements are identified which are not contingent upon the new Openreach EOI inputs, BT will, where reasonably practicable, deliver those earlier.

Request number: 5

Product: Openreach engineering services

Legal basis: 5.46.2a)

1. Product description and reasons for request

Openreach currently supplies engineering services to BT Wholesale and BT Global Services to enable them to effect delivery of a limited list of specifically identified existing network management services contracts as agreed with Ofcom ("the identified existing contracts"). These contracts are to provide and maintain privately owned networks on private land and beyond the Network Termination Point (NTP).

BT Wholesale and BT Global Services have a limited number of existing contracts which depend on Openreach field engineering resources to service them – the identified existing contracts. Customers expect current contractual commitments to continue to be met, and thus these engineering resources need to continue to be supplied. It is therefore critical that continuity of supply is maintained between Openreach and BT Wholesale/BT Global Services so that the required Openreach engineering support continues to be supplied for the duration of the identified existing contracts. These Openreach services are charged to BT Wholesale and BT Global Services.

Openreach has yet to determine whether it wishes to make all of these engineering services externally available, or, if it were to do so, on what basis. As a result, an exemption from the requirement to offer these services on an EOI basis is needed to ensure continuity of supply of Openreach engineering services to BT Wholesale and BT Global Services in support of the identified existing contracts.

To the extent that these activities are not already exempted by virtue of section 5.46.1h) of the Undertakings, BT is seeking an exemption to enable Openreach to continue providing these engineering services to BT Wholesale and BT Global Services in support of the identified existing contracts, on the current basis and processes, without having to provide them externally, until the relevant contracts end or are terminated, or until these services are launched by Openreach on an EOI basis, whichever occurs first.

To the extent that some of these services may correspond to engineering services which are already offered to other Communications Providers (CPs), BT is seeking a transitional exemption to enable BT Wholesale and BT Global Services to migrate the specific existing engineering services provided to them by Openreach in support of the identified existing contracts to the terms and conditions on which these Openreach engineering services are available to all CPs, to the extent that these activities are not already exempted by virtue of section 5.46.1h) of the Undertakings. This migration will be completed by 31 December 2007, and until then these engineering services will continue to be provided by Openreach on the current basis and processes. After 31 December 2007, these engineering services will only be provided on an EOI basis.

2. Legal basis, scope and duration

- Legal basis: section 5.46.2a)

- Scope: exemption from section 5.46.1

- Duration:

- For engineering services which are not currently provided to other CPs, until the earlier of:
 - each of the identified existing BT Wholesale and BT Global Services contracts ends or is terminated; or
 - should such specific engineering services be launched by Openreach on an EOI basis, the EOI launch date will be the RFS date after which any new order by another part of BT will be for these EOI engineering services. The IBMC date by which BT Wholesale and BT Global services must migrate to the EOI product or EOI terms and conditions (as appropriate) will be 12 months after the RFS date.
- For specific engineering services which are currently provided to other CPs, until 31 December 2007, the day after which shall serve as an IBMC date by which BT Wholesale and BT Global Services must migrate to the same terms and conditions available to all CPs.

in both cases to the extent that these activities are not already exempted by virtue of section 5.46.1h) of the Undertakings.

3. Identification of the products involved

These services include typical field engineering services such as provision of cable and duct and maintenance thereof, surveys, wayleaves or plant protection. They do not include the provision of private circuits or partial private circuits.

By 31 March 2007, BT will prepare a detailed list of the specific engineering services, distinguishing between those to be migrated and those which are not provided to other CPs, and will communicate this list to Ofcom.

4. Description of the way in which the product is provided on terms other than EOI

For certain engineering services, Openreach has yet to determine whether it wishes to make these engineering services externally available, or, if it were to do so, on what basis.

For other engineering services, they may be provided on different terms, conditions and/or processes than are available to other CPs.

5. Justification for the exemption and impact on CPs

These engineering services can continue to be provided by Openreach to BT Wholesale and BT Global Services (without Openreach having to provide comparable services externally) in relation to identified existing contracts without this having a material adverse effect on competition. This exemption is necessary to enable BT Wholesale and BT Global Services

to fulfil ongoing requirements of existing customers under the limited list of specifically identified contracts.

BT bids for network management services contracts in a competitive environment. Competing bidders either have their own engineering force or have access to the same services from engineering contractors who are readily available in the marketplace.

With respect to engineering services, competing bidders (whether CPs, systems integrators, etc) always have the alternative to outsource the work or to internalise it, depending on which suits them best.

This exemption specifically does not apply to any pending or future bids, for which BT Wholesale and BT Global Services will rely on the same engineering services as are (or may in the future be) made available by Openreach to all CPs on an EOI basis.

Request number: 6

Product: Engineering services in support of BT Global Services in particular geographical areas

Legal basis: 5.46.1g)

1. Product description and reasons for request

The detailed operational planning involved in the implementation of BT's Undertakings has identified specific issues with regard to particular geographical areas.

Given that a temporary exemption for the Scottish Highlands has been agreed up to and including 22 December 2006, BT no longer requires a further exemption for the Scottish Highlands.

With respect specifically to the Scottish Islands and Scilly Isles, BT requests an exemption to enable the Openreach field engineers to provide engineering services to BT Global Services, without these services being provided externally.

2. Legal basis, scope and duration

- Legal basis: section 5.46.1g)

- Scope: exemption from section 5.46.1

- Duration: for the Scottish Islands and Scilly Isles – exemption up to and including 31 March 2008.

3. Identification of the products involved

This request is to enable Openreach field engineers to provide engineering services to BT Global Services in limited and specific geographical locations, specifically the Scottish Islands and Scilly Isles.

4. Description of the way in which the product is provided on terms other than EOI

Multi-skilled Openreach field engineers in particular geographical areas will provide engineering services to BT Global Services, without these services being available externally.

5. Description of the solution proposed

The request is to allow Openreach field engineers to provide engineering services to BT Global Services in limited and specific geographical locations.

The solution proposed is the following:

- In the Scottish Islands and the Scilly Isles, Openreach field engineers will continue to provide engineering services to BT Global Services up to and including 31 March 2008. This is the most efficient solution given the remote location and relative size of these islands, and enables the Openreach teams responsible for these locations to have a size sufficient to provide necessary flex to be able to operate notwithstanding leave, absences, etc. Should Openreach wish to terminate this arrangement, it would give BT Global Services three months' notice to enable them to make alternative arrangements.
- BT Global Services will be charged for these services.

6. Justification for the exemption and impact on CPs

It would not be proportionate to require BT to provide these services on an EOI basis in the circumstances described. Given the short duration and remote locations involved, the exemption is not expected to have a material adverse effect on any relevant market.

Request number: 7

Product: Private Circuits

Legal basis: 5.46.1g)

1. Product description and reasons for request

The detailed operational planning involved in the implementation of BT's Undertakings has identified specific issues with regard to private circuits.

Currently BT has some 1,100 people engaged in repairing, maintaining and delivering all forms of private circuits, including Partial Private Circuits (PPCs). This is a skilled resource, where the individuals are equally able to operate on the Network Termination Equipment (NTE), copper or fibre bearer, and tackle issues on an end-to-end basis.

In examining in detail how the range of private circuits could best be supported following the signing of the Undertakings, the option of dividing the currently integrated private circuits workforce between Openreach and BT Wholesale and between bearers and electronics was examined. The conclusion that BT reached was that such a division of the integrated private circuits workforce would give rise to operational inefficiencies, primarily due to increased hand-offs, and a requirement for an additional 150 -200 engineers who would need additional training to support private circuits. Such a division would in the end increase costs for all those who require private circuit and PPC capabilities from BT, as well as having a potentially adverse impact on the quality of service offered, thereby increasing the likelihood of customer dissatisfaction issues.

BT has therefore given careful consideration to other options.

The solution identified is to keep the private circuit (including PPCs) provision, repair, maintenance and upgrade activity as an integrated unit, and to locate it within Openreach. There would be an agreed set of Service Level Agreements for the services provided to BT Wholesale to secure its responsibilities in relation to PPCs and leased lines for Communications Providers (CPs). BT Wholesale will be charged for these services.

Location of this integrated private circuits workforce in Openreach is preferred to location within BT Wholesale, since this means that the incentives and culture of Openreach apply, and there is no "non-Openreach" intervention in the access and backhaul networks which are Openreach's responsibility. Overall this is seen as the solution which provides the best customer service as well as being the most efficient.

BT requests an exemption from Equivalence of Inputs under section 5.46.1g) to ensure that Openreach is allowed to provide private circuit (including PPCs) provision, repair, maintenance and upgrade services to BT Wholesale without having to also provide them on an external basis. TILLAPs/TILLBP's will be provided on an external basis but are not subject to EOI in accordance with section 5.46.1a) of the Undertakings.

The Undertakings do not contain any restriction on BTW Commercial Information being shared with Openreach. With respect to any possible sharing of BTW Customer Confidential Information with the integrated Openreach private circuit unit, this is authorised under section 6.10.1 (ii) which provides that BTW Customer Confidential Information can be disclosed to Openreach people to the minimum extent necessary to operationally enable BT Wholesale to deliver BT Wholesale products to customers, which is what will happen in this case.

2. Legal basis, scope and duration

- Legal basis: section 5.46.1g)
- Scope: exemption from section 5.46.1
- Duration: exemption for a permanent period

3. Identification of the products involved

The products involved are provision, repair, maintenance and upgrade services provided to BT Wholesale in relation to its retail and wholesale private circuits portfolios (including PPCs).

The specifications of these products can be found at:

PPC info can be found on btw.com at:

http://www.btwholesale.com/application?origin=prod_az_list.jsp&event=bea.portal.framework.internal.refresh&pageid=product&nodeId=navigation/node/data/Products/Data/Partial_Private_Circuits_PPCs/navNode_Partial_Private_Circuits_PPCs

All BT product tech i/f specs can be found on the SINET site:

<http://www.sinet.bt.com/>

PC retail leased line product information is available from www.bt.com at:

http://www2.bt.com/btPortal/application?origin=mb_product_atoz.jsp&event=bea.portal.framework.internal.portlet.event&pageid=mb_pns_catalogue&portletid=mb_pns_catalogue&wfevent=link.Product&com.bea.event.type=contentclick&oSiteArea=mb.corp&oPJsp=mb_product_atoz.jsp&oPt=mb_pns_catalogue&oDocumentId=products/private_circuit.xml&oOJsp=mb_product_atoz.jsp&oPg=mb_pns_catalogue&oDocumentType=Product&siteArea=mb.corp&PorS=products&productDetail=products/private_circuit.xml&contentType=Product

4. Description of the way in which the product is provided on terms other than EOI

Openreach does not intend to make such services available externally to other CPs.

The requested exemption is intended to provide the products identified in paragraph 3 without Openreach having to also provide them on an external basis.

TILLAP/TILLBPs will be provided on an external basis but are not subject to EOI in accordance with section 5.46.1a) of the Undertakings.

5. Description of the solution proposed

The provision and maintenance of private circuits (including PPCs) involves a series of complex tasks undertaken by highly skilled engineers. It is crucial therefore that BT is able to deploy engineers in a manner that allows them to fully utilise their skills, minimise the number of hand-offs between BT units and which will offer the best possible service to all CPs and thus to their end customers.

Openreach field engineering activities will be carried out in support of upgrade, provisioning and assurance processes across:

- NTE
- Cable chamber
- Optical Fibre Rack
- DWSS (Digital Wideband Serving System)/ LTE (Line Termination Equipment)
- Digital Distribution Frame
- Core MUX (Multiplexer) line card
- Related internal tie cables

On receiving a Fault Report, Openreach will obtain the circuit information and carry out diagnostic tests in line with the original primary diagnostic tests. From these tests, actions will be taken which may include: changing the LTE or NTE cards, changing or repairing the bearer, changing the configuration, and/or checking and repairing permanent wiring. On intermittent faults, an 'In Service Monitor' may be fitted for further diagnostics. Where required, individual circuit paths will be tested to confirm with the customer the BT service to their kit.

Any changes to equipment or records will be recorded. Additionally, fault updates and clearance notes are recorded on Work Manager software which is automatically downloaded to CAMSS. All customer contact details are provided on the Fault Report from Work Manager. Access to a customer's site will be arranged and confirmed by BT Wholesale.

The Core MUX line card represents the natural boundary between Openreach operations and BT Wholesale operations because it is the logical dividing line between single circuit provision and repair on the one hand, and multiple circuit aggregated capacity provision on the other hand. Moving the boundary closer to the customer increases the frequency of multiple engineering visits and time consuming hand-offs between BT Wholesale and Openreach on customer private circuit provision and repair. Conversely, moving the boundary further into the core network means that Openreach would become directly involved in the construction and routine maintenance of BT Wholesale's transmission and switch network.

At the other extreme, installing and maintaining the NTE as well as the NTU make a single customer visit possible. Customer premises equipment beyond this point is clearly an activity that can be undertaken by any, and many, other service providers.

6. Justification for the exemption and impact on CPs

Openreach engineers will therefore perform all customer visits for Openreach and BT Wholesale owned private circuits.

This arrangement offers the following significant advantages:

- Single visits to customers can be maintained where they already occur and more will be possible in the future as multi-skilling is extended;

- Exchange (LTE out) to customer private circuits provision and assurance will be provided by a single BT Line of Business simplifying controls and interface management and thereby enabling reduced lead-times and improved quality;
- The number of 'hand-offs' is kept to the minimum which optimises the speed of both the provision and repair processes and reduces the likelihood of delays and faults;
- It makes the best and most effective use of high value engineering skills, experience, tools and testers;
- It is the most straightforward option for measurement purposes, enabling effective management control;
- It offers the greatest level of operational flexibility thereby enabling improved service delivery.

Over and above the provision of the bearer, Openreach will provide and fit the LTE card, the NTE card and (where required) casing and the connecting link to the BT core network. The NTE will be connected to the customer's DC power supply. Openreach will also provide any necessary ISDN2 service for alarm connections at the NTE and carry out alarm checks with the alarm centre. When specified, commissioning tests will be completed including end-to-end tests.

All site records will be updated. Also all COSMOSS and Routing records will be updated where required. There is an automatic download to the CAMSS system, used for a subsequent fault reports, from the COSMOSS system.

BT believes that overall, this is both the most efficient model and the one that offers the best customer service, to the benefit of all CPs.

Request number: 8

Product: 21CN network uplift programme

Legal basis: 5.46.1c)

1. Product description and reasons for request

The overall 21CN Network Uplift programme has been designed to review and, where appropriate, prepare the physical network (Main Distribution Frame (MDF) and core), associated records and exchange buildings to make them ready for implementation of BT's NGN 21CN in order to mitigate the risk and impact to customer service during and as a result of the cutover to BT's NGN 21CN. The 21CN Network Uplift programme is led by BT Wholesale, and is scheduled to run for the duration of the implementation of BT's NGN 21CN through to 2011. Once BT's NGN 21CN is up and running, the 21CN Network Uplift programme will be dissolved and people will be reassigned.

The MDF is an Openreach asset which is impacted by the 21CN Network Uplift programme. It is critical to ensure strong alignment of site and systems activities at the infrastructure level (irrespective of asset ownership) in the 21CN Network Uplift programme to guarantee smooth and efficient migration of services to BT's NGN 21CN from a customer service point of view and to provide a base for long-term service stability.

From 1 September 2006 Openreach has progressively been taking over those activities required under the 21CN Network Uplift programme which relate to the MDF, and is accordingly providing the necessary engineering services to BT Wholesale in relation to the MDF in preparation for the launch of BT's NGN 21CN, as part of BT's 21CN Network Uplift programme.

The Openreach 21CN engineering team is responsible for leading on all activities involving physical work on and connection to the MDF including in particular initial network uplift, grooming and transfer engineering (see section 3 below). BT Wholesale will be charged for these services. Up until September 2006, this work had been carried out by a dedicated team of 21CN engineers within BT Wholesale pursuant to the temporary exemption agreed between Ofcom and BT. As of 1 September 2006, Openreach has progressively been taking over responsibility for the engineering work relating to the MDF and is thereafter acting as a supplier to the 21CN programme. Transfer of the relevant people from BT Wholesale into Openreach occurred between 1 September 2006 and 1 October 2006.

BT Wholesale will retain ownership on behalf of BT Group of the end-to-end delivery of BT's NGN 21CN.

Section 11.20 of the Undertakings stipulates that "nothing in these Undertakings shall impede the flow of information reasonably required to enable BT to design, build, and implement its NGN or the decision making process relating thereto."

BT requests the following:

1. Provision by Openreach of engineering services to BT Wholesale on a non-EOI basis

BT requests an exemption under section 5.46.1c) to enable Openreach to provide engineering services under the 21CN Network Uplift programme to BT Wholesale on a non-EOI basis (see section 3 below for more detail on the engineering services involved).

2. Access by Openreach people to BT Wholesale systems and access by BT Wholesale people to Openreach systems

To the extent that implementation of the 21CN Network Uplift programme includes access to Openreach or BT Wholesale systems, including after systems separation milestones, such access shall be authorised for ring-fenced teams solely for the purpose of implementing the 21CN Network Uplift programme. BT is proceeding on the basis that Variation #5 to the Undertakings will ultimately be agreed, and in accordance with that Variation, such systems access shall be considered as "permitted" access consistent with the Undertakings.

The need for any exemption will cease on an exchange-by-exchange basis during the period of implementation of BT's NGN 21CN (due to finish in 2011), plus 6 months to allow for the consolidation period across all exchanges at the end of the implementation period of BT's NGN 21CN. As a result, BT proposes a "sunset provision" whereby this exemption will automatically cease (unless agreed otherwise with Ofcom) 6 months after 21CN implementation and cutover at the last exchange, which is to occur no later than 31 December 2011.

2. Legal basis, scope and duration

- Legal basis: sections 5.46.1c) and 2.1 (as amended by Variation #5 to the Undertakings)
- Scope: exemption from section 5.46.1 and agreement that systems access is "permitted" under section 5.44, 5.45 and 8.5
- Duration: until 6 months after implementation of BT's NGN 21CN and cutover at the last exchange, which shall occur no later than 31 December 2011, unless otherwise agreed with Ofcom.

3. Identification of the products involved

Openreach will provide certain engineering services to BT Wholesale in relation to the MDF and in preparation for the launch of BT's NGN 21CN. Up until September 2006, this work had been carried out by a dedicated team of 21CN engineers within BT Wholesale pursuant to the temporary exemption agreed by Ofcom and BT. As of 1 September 2006, Openreach has progressively been taking over responsibility for the engineering work relating to the MDF and is thereafter acting as a supplier to the 21CN programme (see below with respect to Pathfinder). Transfer of the relevant people from BT Wholesale into Openreach occurred during September 2006 (transfer to be completed by 1 October 2006). The Openreach 21CN engineering team will then be responsible for carrying out initial network uplift, grooming and transfer engineering work.

The initial uplift and grooming activities are carried out in each of BT's approx. 6000 exchanges on a rolling basis within a fixed period depending on the number of exchange lines (ranging from 1 week to a maximum of 18 weeks). This activity is followed by a period of consolidation during which follow-up checks are carried out over a 6 month period to ensure that the MDF is being maintained to the necessary quality.

Specific activities in the 21CN Network Uplift programme

The 21CN Network Uplift programme includes three stages:

1st stage (initial network uplift – removal of obsolete components and records)

- Advanced clean-up and preparation
- Accessing and updating MDF records and data cleansing
- Removal of obsolete and/or surplus network components

This stage involves a series of one-off highly-complex site activities associated with the audit, review, cleanse, uplift of MDF and core network elements and their associated records. Where activities relate to the MDF they will be carried out by Openreach and where activities relate to core network elements they will continue to be carried out by BT Wholesale. This leads to an exchange-by-exchange “lockdown” in terms of work performed on each of these assets to maintain the benefit of the initial uplift and cleansing.

2nd stage of 21CN preparation (grooming)

- Grooming / compression of the MDF as required
- Providing connectivity to EvoTAM and MSAN equipment
- Isolating network components that will not be supported by 21CN once 21CN goes live

This stage involves rearrangement of all the individual connections on the MDF so that spare blocks are eliminated (compression) and reorganised (grooming). In particular, network components relating to legacy circuits or services which will not be supported by 21CN are rearranged and isolated onto distinct blocks on the MDF.

The EvoTAM and MSAN equipment will subsequently be physically connected to non-legacy circuits so that the actual cutover can be initiated via software using a remote terminal connected into the EvoTAM. All of these activities will either be carried out by Openreach or, with respect to the connection of the EvoTAM and MSAN equipment, by third party vendors under the joint control of Openreach and BT Wholesale.

The EvoTAM is a new piece of equipment being introduced as part of BT's implementation of BT's NGN 21CN which provides two facilities as follows:

- It includes a test access matrix which provides the mechanism for testing copper loops;
- It includes a switch capability which can be used by transfer engineering to automate the migration of circuits onto the new network.

3rd stage of 21CN preparation (transfer engineering or migration to 21CN)

- Pre-cutover testing to ensure the physical jumpering work has been correctly aligned to the right 21CN network port
- Software cutover to 21CN and implementation of fallback activities as required on an exchange-by-exchange basis

Transfer engineering means the various activities necessary to transfer or migrate customers from the existing 20CN network onto BT's NGN 21CN.

First, Openreach will carry out all of the frame jumpering in relation to the disconnection of 20CN and activation of 21CN services. BT Wholesale will not carry out any frame jumpering activities.

Second, BT Wholesale will undertake pre-cutover testing to ensure this physical work is correctly aligned to the right 21CN network port. This pre-cutover testing will require access to Openreach systems (see also section 1).

Customer circuits will then be electronically cutover, on an exchange-by-exchange basis, on the night of transfer using a terminal connected to the EvoTAM. If the cutover fails in any given exchange, fallback activities will reverse the situation to its pre-cutover status. During the Pathfinder trial (in the Cardiff area up to and including 30 June 2007), the electronic cutover of circuits will be carried out by having BT Wholesale connect a local terminal to the EvoTAM in the relevant exchange. That connection of a local terminal to the EvoTAM by BT Wholesale will be carried out under agreed processes with Openreach. BT Wholesale is developing Operational Support Systems (OSS) that will facilitate the electronic cutover of circuits from 20CN onto 21CN on a larger scale. These OSS are still under development so their exact mechanics are not yet determined. However as soon as the OSS are up and running (which is expected to be by no later than 30 June 2007), the electronic cutover of circuits will be carried out by BT Wholesale using the OSS. To the extent that any local terminal still needs to be connected directly to the EvoTAM in the relevant exchange, Openreach will carry out that connection and that connection service will be charged to BT Wholesale.

The exchange data contained within the exchange software will be remotely and electronically transferred by BT Wholesale. This involves taking the data from the 20CN equipment, converting it into a suitable format and then inputting it into the 21CN equipment. This transfer of relevant data will require access to Openreach systems (see also section 1).

4. Description of the way in which the product is provided on terms other than EOI

Openreach's intention is to consider whether and to what extent it is possible to productise and offer externally on an EOI basis some or all of the engineering services which will be provided to BT Wholesale as part of the 21CN Network Uplift programme. BT Wholesale will be charged for the services provided by Openreach.

5. Justification for the exemption and impact on CPs

The 21CN Network Uplift programme delivers benefits to Communications Providers (CPs), their end user customers and the wider telecommunications industry.

The key benefits relate to:

- Mitigation of risk to service continuity as a result of data cleanse and lockdown prior to implementation of BT's NGN 21CN;
- Improved MDF reliability; and
- Provision and maintenance of a safe, secure working environment for equipment, employees, contractors and CPs.

These benefits provide a sound, reliable base for the deployment of 21CN equipment and the subsequent cutover to 21CN.

The split of activities between Openreach and BT Wholesale reflects Openreach's ownership of the MDF and BT Wholesale's ownership of the core network and its leadership role in delivering BT's NGN 21CN, as well as the necessary interactions between Openreach and BT Wholesale under the 21CN Network Uplift programme to (i) ensure that disruptions to CPs and their end customers are minimised, including impact on day-to-day customer service; (ii) minimise programme costs and (iii) mitigate the risks to BT and its customers associated with cutover to 21CN.

Request number: 9

Product: LLU Associated Services in relation to BT's 20CN DSLAMs

Legal basis: 5.46.1b)

1. Product description and reasons for request

Section 5.46.1 of the Undertakings provides that Openreach will not supply any product to any other part of BT unless it also offers that product to other Communications Providers (CPs) on an Equivalence of Inputs basis. The section lists a number of areas where this requirement does not apply. This includes at 5.46.1b) "such Associated Services as may be agreed with Ofcom."

Section 2.1 on Definitions and Interpretation describes Associated Services as products and services ancillary to the provision of Metallic Path Facility (MPF) and Shared Metallic Path Facility (SMPF) and lists some of these including at a) co-mingling. Sections 5.4 e) and f) confirm that these are products and services to be provided by Openreach.

The Co-Mingling Product provided to CPs by BT includes a Handover Distribution Frame (HDF) within the Multi-User Area. One side of the HDF is connected to the CP's DSLAM; the other side is connected by LLU internal tie cables to the Main Distribution Frame (MDF) associated with their unbundled lines (MPF and SMPF). In the case of BT Wholesale, BT Wholesale's own tie cables run directly from BT Wholesale's DSLAMs to the MDF without an HDF. Depending on the exact configuration in any given exchange, BT Wholesale's Test Access Matrix (TAM) is connected either directly to the MDF (Frame Test Access Matrix - FTAMs) or between the MDF and the BT Wholesale DSLAM (ETAMs), whereas TAMs of LLU Operators (LLUOs) will be connected to the DSLAM-side of the HDF.

This means that several aspects of how BT Wholesale connects its DSLAMs to the MDF, does the service layer testing on its lines, and consumes LLU Associated Services, are different from other CPs. BT recognises the need to move to a solution which is delivered on an EOI basis for all CPs, including BT Wholesale, so that BT consumes LLU (including certain LLU Associated Services) on an EOI basis, and which also takes into account the LLU designs under BT's NGN 21CN network architecture.

BT accordingly requests an agreement under section 5.46.1b) that section 5.46.1 shall not apply.

This request does not include the approach under BT's NGN 21CN.

2. Legal basis, scope and duration

- Legal basis: section 5.46.1b)

- Scope: exemption from section 5.46.1

- Duration:

(a) HDF/LLU internal tie cables:

- (i) Up to and including 30 June 2007, during which time existing processes will continue to be used (no provision or installation by BT Wholesale of HDFs or

LLU internal tie cables between the MDF and HDF) while new processes and a new HDF/LLU internal tie cable product are being developed by Openreach.

- (ii) For any orders placed after 30 June 2007 and up until the switchover to 21CN (which will occur on an exchange-by-exchange basis) and at the latest by 31 December 2011, BT Wholesale will continue to use existing processes (no provision or installation by BT Wholesale of HDFs or LLU internal tie cables between the MDF and HDF) only for extensions to existing BT Wholesale DSLAMs installed in existing line suites that may require additional cabling between the BT Wholesale DSLAM and the MDF (or ETAM or FTAM, as the case may be).

However, for any orders placed after 30 June 2007 and up until the switchover to 21CN (which will occur on an exchange-by-exchange basis) and at the latest by 31 December 2011, BT Wholesale will use the new processes and purchase the new HDF and LLU internal tie cable products offered by Openreach for any new DSLAM installation (as defined below).

After 21CN switchover, BT Wholesale will use the industry-agreed EOI 21CN solution for LLU.

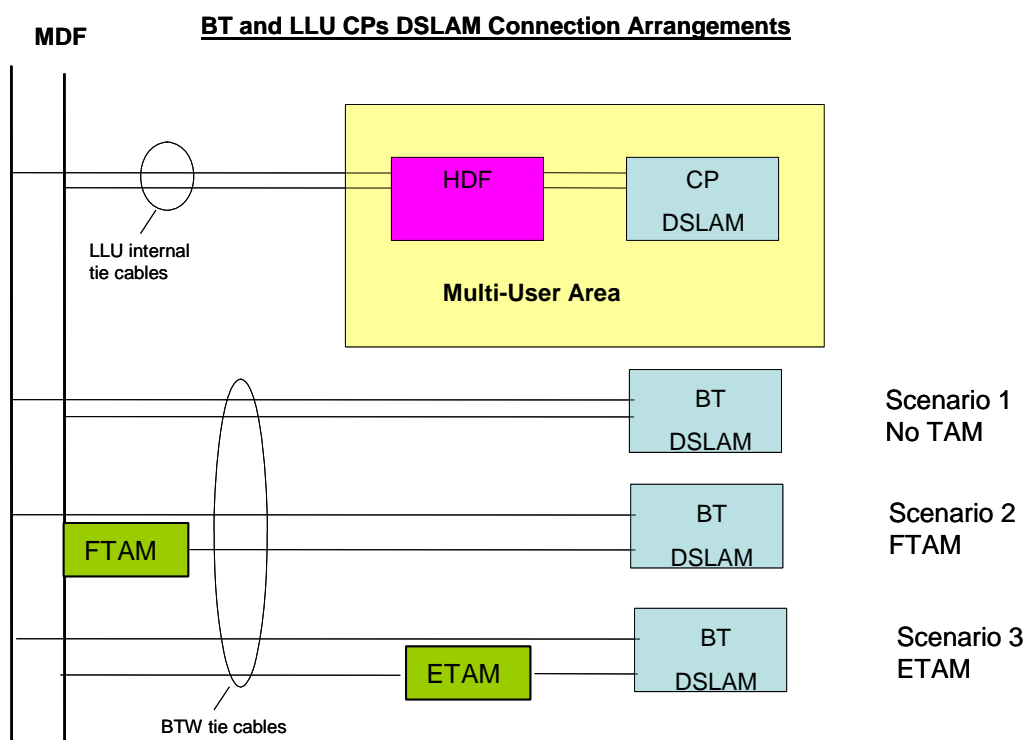
(b) Service layer testing: On legacy BT Wholesale DSLAM installations on which no TAM (FTAM or ETAM) has been installed, service layer testing will be outsourced by BT Wholesale to Openreach, and Openreach engineers will conduct service layer tests on BT Wholesale's behalf using BT Wholesale-owned hand-held testers which interface specifically with BT Wholesale DSLAMs. This service layer testing service will not be externalised and will be provided by Openreach only to BT Wholesale until the earlier of:

- (i) switchover to BT's NGN 21CN (which will occur on an exchange-by-exchange basis) and at the latest by 31 December 2011; or
- (ii) redesign by BT Wholesale of its equipment and/or processes so as to do away with the need for service layer testing involving touching the MDF; or
- (iii) if reasonable demand from other CPs exists, launch by Openreach of an appropriate EOI Openreach "engineering assistance product" to support 20CN DSLAM installations and providing service layer testing.

3. Identification of the products involved

This request concerns LLU Associated Services.

The following diagram shows the current situation:



LLUO Connection Arrangements

The HDF is integral to the design of the Co-Mingling Product which was designed in agreement with LLUOs and provides a clear demarcation between their and BT's networks. This approach also provides CPs with the ability to connect to the wide range of DSLAMs available in the marketplace with the varying termination options they offer. Additionally it provides the CPs with the flexibility to jumper their DSLAMs to the LLU internal tie pairs in any way that they wish. CPs connect their TAMs to their DSLAMS and to the DSLAM-side of the HDF.

The LLU Co-Mingling Product is designed to terminate on an HDF, and the CP therefore cables from its DSLAM to the DSLAM-side of the HDF.

Having an HDF allows BT to complete the co-mingling installation and then hand over a finished site before the CP installs their DSLAM.

The current Co-Mingling Product therefore has clear benefits for CPs in a 20CN world and was designed in agreement with LLUOs.

BT Wholesale Connection Arrangements

BT Wholesale's DSLAMs are currently connected to the MDF without the use of an HDF using tie pairs, in one of the following arrangements, depending on whether a TAM is used and if so where it is placed:

- where no TAM is employed, the DSLAMs are connected directly onto the MDF using BT Wholesale-owned tie cables which are typically pre-cabled into the BT Wholesale DSLAM (scenario 1);
- where a BT Wholesale-owned ETAM or FTAM is used to provide a test access point, BT Wholesale tie cables connect between the DSLAM, TAM and MDF (scenarios 2 and 3) and are again typically pre-cabled into the DSLAM.

4. Description of the way in which the product is provided on terms other than EOI

The current process means that there are several differences between how BT Wholesale and other LLUOs consume LLU Associated Services.

How the order is placed

On completion of the co-mingling installation, CPs are able to purchase unbundled loops (MPF or SMPF) using standard processes and systems. The physical provision and all associated operational processes are identical in all ways, and the same systems are available for use by BT Wholesale and CPs to input MPF and SMPF provision and repair orders.

The order will however differ in the following way depending on whether BT Wholesale or a CP is placing the order. With respect to the tie pair reference, CPs will quote the HDF tie pair number while BT Wholesale will enter a DSLAM Port reference. There is no difference in either provisioning or repair timescales, or associated operational processes for MPF and SMPF, between CPs and BT resulting from this use, or not, of the HDF – e.g. the number of jumpering activities required for a new MPF/SMPF is the same. The necessary frames and field jobs will be provided identically and to the same lead times and processes. A similar approach applies to the repair systems as to provision.

Whether there are HDFs and LLU internal tie cables

LLUOs order HDFs as part of the Co-Mingling Product.

BT Wholesale does not purchase the Co-Mingling Product. It is responsible for the provision of certain infrastructure-related LLU Associated Services (e.g. Space, Power, Cooling), and it self-provides these directly. Further, the tie cables which connect the BT Wholesale DSLAM have historically not been considered as LLU internal tie cables, which is different from the status of the internal tie cables which connect the MDF to the HDF (which is the point of demarcation for LLUOs). BT Wholesale has always self-provided the tie cables which connect its DSLAMS and TAMs to the MDF.

A new product will therefore need to be developed by Openreach which enables BT Wholesale to purchase HDFs and LLU internal tie cables on their own (rather than as part of the existing Co-Mingling Product), and BT Wholesale will need to modify its DSLAMs/processes to enable them to be connected to the HDF and to LLU internal tie cables.

How the connection is made

LLUOs connect their DSLAMs and TAMs to the HDF, and the HDF is connected to the MDF by LLU internal tie cables.

The absence of the HDF impacts how BT Wholesale connects its TAM.

- If BT Wholesale connects an FTAM for broadband, it connects the FTAM directly to the MDF, whereas an LLUO would connect its TAM between the HDF and their equipment (but not directly onto the MDF). The tie cable running from the BT Wholesale DSLAM to the FTAM will normally be pre-cabled on the DSLAM.

- If BT Wholesale connects an ETAM (between the DSLAM and the MDF), the BT Wholesale tie cables are connected to the ETAM and then on to the MDF, or if no TAM is installed, the BT Wholesale tie cable is connected directly to the MDF.

Where there is no BT Wholesale TAM, BT Wholesale has historically needed to have access to the MDF with specific hand-held tester devices to carry out service layer testing.

Price

Because the Co-Mingling Product purchased by CPs include both HDF and LLU internal tie cables, the price charged to CPs will reflect the additional components.

It should be noted that CPs' tie cables connecting their DSLAMS and TAMs to the HDF (which CPs self-provide) are typically very short as their equipment is located next to the HDF. Conversely, the BT Wholesale tie cables which connect their DSLAMS and TAMs to the MDF are very long – and thus more expensive - than LLU internal tie cables consumed by other CPs. This is because BT Wholesale tie cables are effectively as long as the LLU internal tie cables consumed by CPs plus the CP-provided tie cables on the DSLAM-side of the HDF connecting CP equipment to the HDF.

Service layer testing

Service layer testing for legacy BT Wholesale DSLAM installations on which no TAM (FTAM or ETAM) has been installed will be outsourced by BT Wholesale to Openreach. Openreach engineers will conduct service layer tests on BT Wholesale's behalf using BT Wholesale-owned hand-held testers which interface specifically with BT Wholesale DSLAMs. This service layer testing service will be provided by Openreach to BT Wholesale only and will not be externalised.

5. Description of the solution proposed

The current Co-Mingling Product offered by Openreach to LLUOs includes the HDF, connectivity (LLU internal tie cables or other connectivity options such as Cablelink), and co-mingling space and infrastructure-related services provided by BT Wholesale (such as Power and Cooling). The current Co-Mingling Product sold to other CPs is not therefore an appropriate input to be purchased by BT Wholesale between now and the implementation of BT's NGN 21CN.

BT recognises that the HDF offers a clear and industry-recognised point of demarcation for the current LLU product, and that the use of an HDF is a transitory approach, which will in due course be overtaken by 21CN architectures.

This request therefore seeks the following:

1. HDF/LLU internal tie cables:

- a. No retrofitting of HDFs or LLU internal tie cables for existing BT Wholesale DSLAMs is required.
- b. During an initial transitional period up to and including 30 June 2007, BT Wholesale DSLAMs will continue to be provisioned and installed without HDFs and LLU internal tie cables between the MDF and HDF using existing processes.

- c. For any orders placed after 30 June 2007 and up until the switchover to 21CN (which will occur on an exchange-by-exchange basis) and at the latest by 31 December 2011, BT Wholesale will continue to use existing processes (no provision or installation by BT Wholesale of HDFs or LLU internal tie cables between the MDF and HDF) *only* for extensions to existing BT Wholesale DSLAMs installed in existing line suites that may require additional cabling between the BT Wholesale DSLAM and the MDF (or ETAM or FTAM, as the case may be).

The BT Wholesale DSLAMs described under points 1(a), (b) and (c) are referred to in this request as the “legacy BT Wholesale DSLAMs”.

- d. For orders placed after 30 June 2007 and until the switchover to 21CN (which will occur on an exchange-by-exchange basis) and at the latest by 31 December 2011, BT Wholesale will use the new Openreach processes and will purchase the new HDF and LLU internal tie cable products offered by Openreach for any new BT Wholesale DSLAM installation. Although this new product and process will be offered on an EOI basis, other CPs will be likely to continue to consume the existing Co-Mingling Product which contains the other LLU Associated Services (e.g. Space, Power) which are necessary for other CPs but which BT Wholesale self-provides.
- e. The definition of BT Wholesale’s “new DSLAM installations” with respect to this request includes all new or reused BT Wholesale DSLAMS that require new cabling and new rack framework, where such DSLAMS are to be installed:
 - i. at an MDF site that has not previously had a BT Wholesale broadband installation; or
 - ii. at an existing BT Wholesale broadband-enabled MDF site in a new area, in a new footprint or in a new line suite within that exchange.

The requirement to purchase the new Openreach HDF and LLU internal tie cable product shall apply to all orders relating to new DSLAM installations (as defined above) placed after 30 June 2007.

2. **Service layer testing:** On legacy BT Wholesale DSLAM installation on which no TAM (FTAM or ETAM) has been installed, service layer testing will be outsourced by BT Wholesale to Openreach, and Openreach engineers will conduct service layer tests on BT Wholesale’s behalf using BT Wholesale-owned hand held testers which interface specifically with BT Wholesale DSLAMs. This service layer testing service will not be externalised and will be provided by Openreach only to BT Wholesale until the earlier of:
 - a. switchover to 21CN (which will occur on an exchange-by-exchange) basis and at the latest by 31 December 2011; or
 - b. redesign by BT Wholesale of its equipment and/or processes so as to do away with the need for service layer testing involving touching the MDF; or
 - c. if reasonable demand from other CPs exists, launch of an appropriate EOI Openreach engineering assistance product to support 20CN DSLAM installations and providing service layer testing.

BT Wholesale will be charged for this service layer testing engineering service.

BT will proceed as follows during this time period:

- (i) During the period up to and including 30 June 2007, Openreach will develop a new process and product so that BT Wholesale is able to purchase HDFs and LLU internal tie cables from Openreach. The HDFs and LLU internal tie cables supplied by Openreach to BT Wholesale will be the same as those provided to other CPs, and will be provided on the same terms and conditions.
- (ii) To the extent that there is reasonable demand from other CPs for an Openreach "engineering assistance product" which would be available to all CPs on an EOI basis to provide Openreach engineering assistance to CPs, including carrying out service layer testing where no TAM is installed, Openreach will carry out a feasibility study within 3 months of CP demand for such a product.

6. Justification and impact on CPs

Any retrofitting of HDFs on existing BT Wholesale DSLAMs would be disproportionate in a number of respects as well as an unnecessary and undesirable diversion of resources away from other work which benefits CPs and end-users. Further, retrofitting would be disproportionate in light of the proposed 21CN solution which does not include a mandatory HDF.

The request to enable BT Wholesale to continue installing DSLAMs for a transitional period up to and including 30 June 2007 while Openreach develops new processes and a new product is reasonable and proportionate. This is because of its short duration and the significant process and systems development work needed to launch a new HDF/LLU internal tie cable product and process which BT Wholesale can use.

The differences in the actual ordering process are *de minimis* (entering different tie pair references instead of DSLAM Port references).

The request to enable BT Wholesale to continue to have limited access to the MDF under prescribed circumstances is reasonable and proportionate, and in particular will ensure there is no disruption of others' telecommunications services.

Request number: 10

Product: Redcare CCTV

Legal basis: 5.46.2a)

1. Product description and reasons for request

BT Retail's redcare business currently provides a CCTV product, primarily to public agencies for security purposes. This product is delivered on the basis of an internal input provided by Openreach which is not currently productised or externalised. CCTV monitoring is becoming increasingly important to the security agencies in supporting public safety and evidencing criminal acts. This product is delivered on the basis of fibre and civil works provided by Openreach.

BT requests an exemption under section 5.46.2a) to enable Openreach to continue to supply the same inputs into the redcare CCTV product line without those inputs needing to be provided externally. This exemption is for a transitional period pending the development and launch by Openreach of a new EOI input product by 30 September 2007, the day after which will serve as an RFS date, although Openreach would aim to launch this product earlier. From that RFS date New End-Users will purchase redcare CCTV services on the basis of the new EOI Openreach inputs.

After 30 September 2007, the requested exemption will enable Openreach to continue to support the installed base within contractual commitments beyond that date until end of contract or customer migration to the new EOI product or to a 21CN successor by 30 June 2010, the day after which will serve as an IBMC date unless otherwise agreed with Ofcom.

The requested exemption also enables continued access to Openreach systems until 30 June 2010 for a dedicated ring-fenced team within the redcare CCTV business in relation to redcare CCTV provision, testing, maintenance, systems design, and progress-chasing on fault resolution. This would be for a dedicated ring-fenced redcare team and appropriate behavioural controls/training and audit trails will be put in place to support these arrangements.

2. Legal basis, scope and duration

- Legal basis: section 5.46.2a)

- Scope: exemption from section 5.46.1

- Duration: exemption (including for continued access to Openreach systems) up to and including 30 September 2007, the day after which will serve as an RFS date, and thereafter only for the installed base up to and including 30 June 2010, the day after which will serve as an IBMC date, unless otherwise agreed with Ofcom.

3. Identification of the products involved

The relevant product is the Openreach inputs into the redcare CCTV business. This business consists of providing specialist point-to-point telecommunications links to connect public-space CCTV camera installations to customers' video monitoring centres. Currently

this is on the basis of analogue video delivered over un-switched fibre links and is available as single or multi-channel circuits.

The principal demand for CCTV circuits is from local authorities, police and government security agencies. The product is used for public surveillance schemes to reduce crime, combat terrorism, reduce public disorder and improve police efficiency. It is also used for traffic monitoring and management systems e.g. the 'ring-of-steel', London Congestion Charging Scheme, etc. A high percentage of redcare's CCTV customers fall into the local or national government sector (including police and security agencies).

Uncompressed analogue video has been the solution of choice for government customers because of very high picture quality from such circuits and the fact that there was major growth in the requirements for CCTV at a time when video compression techniques were less developed. There is and will be an increasing move to digital but the speed of this will be largely dependent on funds being available to users to upgrade or change out existing systems many of which have been installed within the last 10 years.

Point-to-point circuits give immunity from deterioration at times of national emergency.

Further details of the redcare CCTV products can be found at:

<http://www.btreddcarevision.com/>

4. Description of the way in which the product is provided on terms other than EOI

To create the CCTV product, redcare uses end-to end fibre circuits and civil works from Openreach under an internal trading agreement. This is not delivered as a product or made available externally.

Openreach then connect redcare's electronics to these fibres on redcare's behalf to create redcare's external product (RS1000 & RS1000D).

The requested exemption is to enable Openreach to continue to supply the existing inputs into new supply to the redcare CCTV business without having to make these inputs available externally until after 30 September 2007, and thereafter for the installed base only until the IBMC date.

The redcare CCTV team also requires continued access to Openreach systems in relation to redcare CCTV provision and systems design and progress-chasing on fault resolution. This is because the majority of CCTV circuits terminate in the street and the redcare CCTV team therefore need access to certain Openreach systems to locate circuits and minimise civil works and street disruption.

5. Description of the solution proposed

As current proposals for WES/BES/LES based products do not offer the ability for customers to transmit video signals, it is proposed that Openreach develops a single channel video WES/BES/LES product allowing point-to-point video transmission at a fixed data rate.

Initial consideration has taken place as to how this could be developed although full feasibility and associated activities have yet to take place.

An exemption is therefore sought for a period that enables:

- a) Openreach to fully evaluate, develop and launch an EOI WES/BES/LES variant for carrying video traffic – Openreach commits to launch this by 30 September 2007 although it will aim to do this by 31 July 2007;
- b) Openreach to continue to provide the existing inputs into the redcare CCTV business until the new EOI WES/BES/LES video variant is available, after which date New End-Users will purchase a redcare CCTV service based on the new EOI input;
- c) Openreach to continue to provide the existing inputs into the redcare CCTV business until the new EOI WES/BES/LES video variant is available, six months after which new orders from existing customers will be met by a redcare CCTV service based on the new EOI input;
- d) Openreach to maintain the installed customer base on the existing RS1000 redcare CCTV system until redcare customers decide to migrate to a redcare CCTV service based on the new EOI video input or to a 21CN successor. This includes the right to expand existing redcare CCTV services for the installed customer base during the remaining term of customers' existing contracts.

6. Justification for the exemption and impact on CPs

This exemption will enable Openreach to develop and launch a new EOI input and will enable redcare to meet ongoing contractual commitments of existing customers without raising potential security concerns. Withdrawal of redcare's CCTV services would require significant renegotiation of contracts with end-users, including public bodies and authorities.

Request number: 11

Product: BT Media and Broadcasting

Legal basis: 5.46.2a)

1. Product description and reasons for request

This exemption request concerns the Openreach inputs into BT Global Services' BT Media & Broadcasting business ("BT M&B"). These inputs are not currently productised or externalised.

BT M&B provides connectivity for the transmission of broadcast traffic. The relevant media and broadcast services are provided over relatively new infrastructure, much of which has been built in response to customer specific demand, often in areas where there is competition from other network operators. These are generally high bandwidth services, of up to 1.5Gbit/sec. Transmissions are mainly unidirectional. Solutions are to a large extent bespoke to each customer, and the resulting networks are highly complex.

The Openreach input access services supplied to BT M&B to support those broadcast services are supplied over analogue and digital feeds. BT M&B then adds value to provide broadcast services to its customers.

BT requests an exemption under section 5.46.2a) to enable Openreach to continue to supply existing inputs into the BT M&B business subject to the current terms and processes, without Openreach having to productise or make such inputs available externally. This exemption would be for a transitional period in accordance with the solution described below in section 5.

This exemption will enable BT M&B to meet ongoing contractual commitments with existing customers which, among other services, include the distribution of some of the Digital Terrestrial TV muxes to facilitate timely geographical and service expansion associated with the Government TV Digital Switch Over date.

2. Legal basis, scope and duration

- Legal basis: section 5.46.2a)

- Scope: exemption from section 5.46.1

- Duration: exemption (including for intermittent and occasional access) up to and including 31 December 2007, the day after which will serve as an RFS date, and thereafter only for the installed base until Existing Contracts expire or are terminated, but at the latest up to and including 30 June 2010, the day after which will serve as an IBMC date, unless otherwise agreed with Ofcom.

3. Identification of the products involved

This request for an exemption relates to the supply and support of a variety of Openreach access services which underpin the BT M&B portfolio.

Further information on the BT M&B products can be found at:

<http://www.broadcast.bt.com/home/>

4. Description of the way in which the product is provided on terms other than EOI

BT M&B products use fibre-based or SDH connectivity from Openreach (previously from BT Wholesale). These inputs are supplied to BT M&B for use with non-standard terminating equipment. Openreach supply and maintenance of these inputs are not productised or available externally.

5. Description of the solution proposed

Openreach will develop and launch by 31 December 2007 a WES broadcasting variant. This service will be provided on an EOI basis. New BT M&B contracts entered into after 31 December 2007 will use this new WES service as the Openreach input.

Openreach will maintain the installed customer base on the existing BT M&B services until the existing contracts end or are terminated by the customers or by BT, up to but not beyond 30 June 2010. This includes, where the contract so provides (either under an umbrella contract or through a change control mechanism in the contract), expansion of existing services.

"Existing Contracts" means relevant BT contracts which are in effect prior to the date on which the new WES broadcasting service is available.

Broadcast networks can be very complex, and customers can be wary of and resistant to change. BT and Ofcom may in exceptional circumstances agree customer specific exemption(s) beyond 30 June 2010.

BT retains the right to construct customer solutions, including Media and Broadcast services, using non-BT fibre.

Intermittent and occasional access

BT M&B also uses dedicated assets at specific locations exclusively to provide intermittent and occasional access for broadcast to a terrestrial network from locations such as football grounds, conference centres, exhibition venues and other outside broadcast sites. There is no current Openreach service which provides for the productised supply of intermittent access services of this sort. For new contracts after 31 December 2007 it will be for BT M&B to use the Openreach and BT Wholesale services then available to support its intermittent access services. Openreach will continue to support existing contracts on the current basis until those contracts expire or are terminated, up to but not beyond 30 June 2010.

6. Justification for the exemption and impact on CPs

This exemption will enable Openreach to develop and launch a new EOI input and will enable BT M&B to meet ongoing contractual commitments from existing customers.

Broadcast services in the UK are competitive. There are a number of competing networks and providers, including C&W/Energis, KPN, Arqiva, Global Crossing, Colt and NTL (including Telewest).

BT M&B's portfolio has been developed to support a competitive industry in which there has been no finding of Significant Market Power. It pre-dates the creation of Openreach and there are no defined products and services produced by Openreach available for BT M&B to buy on EOI terms. An EOI product will need to be created and the systems and processes for its supply developed. The priorities for Openreach delivery of equivalence were identified during the Telecommunications Strategic Review and the creation of a broadcast WES service has to be achieved without compromise to the delivery of those priorities. Openreach has received a Statement of Requirements for the service in question and the exemption covers the period of time that Openreach will need in order to agree, define and deliver the broadcast WES product.

Request number: 12

Product: Managed radio communication services

Legal basis: 5.46.2a)

1. Product description and reasons for request

This request relates to Openreach's inputs into BT Wholesale's managed radio communications services. BT Wholesale offers a portfolio of managed radio communication services to Mobile Network Operators (MNOs) and other wholesale customers. Radio communications services include providing MNOs with 2nd and 3rd Generation radio coverage and capacity, covering GSM 900, DCS 1800 and UMTS technologies and providing MNOs and other wholesale customers with other radio based services such as Wi-Fi.

Currently, these services include:

- the Microconnect portfolio of services (in-building, urban streets and rail network); and
- the Wireless City service.

The purpose of managed radio communications services is to provide shared infrastructure to MNOs to achieve greater 2nd and 3rd Generation coverage and capacity, and to offer other wholesale customers access to Wi-Fi within densely populated urban areas where there is demand for improved coverage by users of mobile phones and other mobile devices. Managed radio communications services address such issues as coverage shadows caused by large buildings and environmental considerations.

This request for an exemption for a limited period of time relates to the continued supply by Openreach to BT Wholesale of a dedicated fibre link between each antenna and a nearby BT exchange building. BT Wholesale's managed radio communications services use Openreach inputs which are not productised or externally available.

BT requests an exemption under section 5.46.2a) to enable Openreach to continue providing the current inputs into BT Wholesale's managed radio communications services without the relevant Openreach inputs having to be productised or made available on an external basis until 30 September 2007 and thereafter only for the installed base until 31 March 2008. The day after each of these dates will serve as, respectively, the RFS and IBMC dates for Openreach inputs to managed radio communications services on an EOI basis.

2. Legal basis, scope, and duration

- Legal basis: section 5.46.2 a)

- Scope: exemption from section 5.46.1

- Duration: exemption up to and including 30 September 2007, the day after which will serve as an RFS date, and thereafter only for the installed base up to and including 31 March 2008, the day after which will serve as an IBMC date.

3. Identification of the products involved

This request seeks an exemption in relation to the Openreach inputs supplied to enable BT Wholesale to provide the following portfolio of managed radio communications services:

- Microconnect Distributed Antenna (MDA) is a service focused on city centres and uses existing street furniture to house micro antennae and provides MNOs with 2nd and 3rd Generation radio coverage.
- Wireless City is a service that extends MDA to offer Wi-Fi based services to customers in addition to MNOs, including BT Retail and BT Global Services. Note that the MNOs also offer Wi-Fi based services using their own physical networks.
- Microconnect In-building Coverage (IBC) is a service focused on providing radio coverage using micro antennae within buildings and provides MNOs with 2nd and 3rd Generation radio coverage.

BT Wholesale uses the Openreach fibre input, combined with BT Wholesale's own radio network design and planning, micro antennae, radio over fibre, equipment, electrical power and operational space (Locate service), and end-to-end management, operations and maintenance to provide its managed radio communications services to MNOs for 2nd and 3rd Generation radio transmission and to other wholesale customers.

Further information about these products is to be found at:

http://www.btwholesale.com/application?origin=prod_az_list.jsp&event=bea.portal.framework.internal.refresh&pageid=product&nodeId=navigation/node/data/Products/Mobility_and_Convergence/Microconnect_Distributed_Antennas/navNode_Microconnect_Distributed_Antennas

http://www.btwholesale.com/application?origin=prod_az_list.jsp&event=bea.portal.framework.internal.refresh&pageid=product&nodeId=navigation/node/data/Products/Mobility_and_Convergence/Microconnect_In_building_Coverage/navNode_Microconnect_In_building_Coverage

4. Description of the way in which the product is provided on terms other than EOI

To create its managed radio communication services portfolio, BT Wholesale uses Openreach inputs between BT Wholesale equipment in a BT Exchange and each antenna location. The Openreach input is dedicated to BT Wholesale's managed radio communications services, and is not productised or externally available.

5. Description of the solution proposed

Given the size of the current downstream business and its consequent lack of material impact it would not be practicable for Openreach to devote resources to prioritising the development of a new input product for use in managed radio communications services at this time ahead of other industry requirements. BT believes that demand for Openreach inputs to be used in managed radio communications services type solutions will emerge. Accordingly, BT proposes that this exemption continues for a limited time, until Openreach

develops and launches an EOI product, up to and including 30 September 2007, the day after which will serve as an RFS date, and thereafter only for the installed base up to and including 31 March 2008, the day after which will serve as an IBMC date.

6. Justification for the exemption and impact on CPs

The current Openreach products, and in particular the WES family, have been examined for their applicability to managed radio communications services. This examination has confirmed that there are specific developments that will be required to support managed radio communications services. For example in the case of Microconnect the WES products currently would not meet the requirements in the following major respects: -

- bandwidth and distance variations of WES may cause the Microconnect service to fail due to the strict requirements for radio over fibre;
- there is limited space available at remote antenna sites for housing equipment and existing WES equipment may not fit nor meet the requirements for environment factors at the antenna locations; and
- WES provides a "digital" data circuit, whereas Microconnect requires circuits capable of supporting an analogue signal using radio over fibre.

Accordingly development time for the new EOI services from Openreach is required.

Although the limited requirement for managed radio communications services today minimises any impact on Communications Providers (CPs) there are also other solutions available. Other solutions available to MNOs and other Wi-Fi customers include MNO self-build options and solutions offered by alternative CPs. For example, Arquiva has a greater presence than BT in in-building radio communications services with approximately 70 sites and it has deployed its CityCell service in one city (based on publicly available information). MNOs' own self-built solutions are a significant competitive factor as they allow MNOs to offer Wi-Fi based services using their own physical networks.

Request number: 13

Product: WaveStream

Legal basis: 5.46.2a)

1. Product description and reasons for request

WaveStream products are retail wavelength-based services offering protected and managed point-to-point services. The electronics enabling the service are very costly, therefore it is not practicable to deliver longer WaveStream services using a sectionalised build with each section built from two or more standalone access and core components.

This exemption request seeks an exemption under section 5.46.2a) of the Undertakings to enable Openreach to:

- continue temporarily to support new supply of WaveStream Connect services until Openreach launches suitable WaveStream WES/WEES products on an EOI basis. This will be achieved by 30 September 2007. In effect the Openreach products will include those currently supplied by BT Global Services under the name WaveStream Connect, with such further options as consultation with Communications Providers (CPs) warrants. BT Global Services will retail those services to End-Users. There is, therefore, no requirement to migrate the BT Global Services installed base to a new product or service. It will be necessary to ensure that the BT Global Services installed base is supplied on terms and conditions consistent with Openreach supply terms, or is migrated to such terms. Many existing contracts are of three years duration, and some of up to five years. Some of these contracts can be migrated to new terms on renewal. Others will need to be renegotiated, a process which may take some time depending upon the customers' requirements. Any migration which is required will be completed by 31 December 2009.
- continue temporarily to support the installed base of BT Global Services WaveStream products for their remaining Existing Contracts duration. This will include these services as currently configured plus such wavelength, speed or interface upgrades on those circuits as were promised as options within those current contracts. "Existing Contracts" means relevant BT contracts which are in effect prior to or on 30 September 2007.
- continue to support new BT Global Services supply of WaveStream Regional and WaveStream National services without making similar services available externally, subject to a restriction of use to WaveStream End-Users only and cost stack rules ensuring full recovery of Openreach costs. The exemption with respect to WaveStream Regional and WaveStream National services will be reviewed by Ofcom and BT by 30 June 2010 in terms of both scope and duration.

BT requests an exemption under section 5.46.2a) to enable Openreach to continue to supply existing inputs into the BT WaveStream portfolio without Openreach having to productise or make such inputs available externally, as described above.

2. Legal basis, scope and duration

- Legal basis: section 5.46.2a)

- Scope: exemption from section 5.46.1

- Duration: exemption for Openreach's inputs:

- into BT Global Services' WaveStream Connect services up to and including 30 September 2007, the day after which will serve as an RFS date; and
- into BT Global Services WaveStream products in respect of the installed base for the remaining Existing Contracts duration; and
- to new BT Global Services supply of WaveStream Regional and WaveStream National services. The exemption with respect to WaveStream Regional and WaveStream National services will be reviewed by Ofcom and BT by 30 June 2010 in terms of both scope and duration.

3. Identification of the products involved

WaveStream uses Wavelength Division Multiplexing (WDM), a technology that transmits multiple wavelengths of light along a single fibre. WaveStream offers customers up to 32 channels, each of 2.5Gbit/s or 10 Gbit/s over a single dedicated fibre pair with duplicated path options for improved availability. This results in an upgradeable service with a very high upper bandwidth limit of 32 x 10Gbit/s with the trade-off that there is a significant cost for the electronics involved. WaveStream products are protocol independent and available throughout mainland UK. Customers for WaveStream require flexibility, resilience, extremely low latency and security, which means that for many customers the service is not suited to shared fibre solutions. The electronics enabling DWDM-based services are very costly; therefore it is not practicable to deliver longer services using a sectionalised approach if it requires separate Network Termination Equipment (NTE) pairs for each of the standalone access and core components.

BT Global Services currently sells three WaveStream Products:

WaveStream Connect is constructed from a short-distance dedicated fibre route of up to 35km radial length (subject to fibre route distance of 60km) and terminal NTE without intermediate electronics.

WaveStream Regional service is similar to WaveStream Connect but uses intermediate regenerators/repeated electronics to extend reach.

WaveStream National uses a different shared-fibre approach to extend reach beyond 35km, using wavelengths derived from a pre-existing core DWDM network. For WaveStream National, provision requires an NTE at each customer premise extended over dedicated fibre and connecting directly to the existing DWDM electronics at BT's core nodes.

Further details about BT's WaveStream product can be found at:

http://www2.bt.com/btPortal/application?origin=mb_content_detail.jsp&event=bea.portal.framework.internal.portlet.event&pageid=mb_pns_catalogue&portletid=mb_pns_catalogue&wfevent=link.Product&com.bea.event.type=linkclick&oLDesc=link+to+product&oSiteArea=mb.corp&oPJsp=mb_content_detail.jsp&oPt=mb_pns_catalogue&oLName=mbpnsproduct&oOJsp=mb_prod_detail.jsp&oPg=mb_pns_catalogue&siteArea=mb.corp&PorS=products&productDetail=products/wavestream.xml

4. Description of the way in which the product is provided on terms other than EOI

There is currently no EOI input into retail WaveStream . The processes for providing, maintaining and repairing WaveStream products rely on Openreach assets and manpower, but do not do so in a way which is formally productised, or is available to other CPs.

5. Description of the solution proposed

From 1 October 2007, Openreach will support the WaveStream Connect business with an end-to-end WEES product, available on an EOI basis and configured with customer premises NTE at both ends plus linking fibres, up to a radial distance limit of 35km, by moving the existing BT Global Services WaveStream Connect into Openreach. For short-distance customer requirements the Openreach component will connect both customer sites, leaving the CP to provide a retail service wrap.

BT retains the right to construct customer solutions, including WaveStream services, using non-BT fibre.

6. Justification for the exemption and impact on CPs

The impact of this approach on CPs is that new wavelength based services will be made available from Openreach on an EOI basis, intensifying competition for customers with very large data transfer needs. This should create new opportunities for CPs without access or backhaul fibre in locations appropriate for the customers they wish to serve, and increases competition faced by those, including BT, who do. The proposal encourages the provision of competing core network infrastructure for that relatively small number of customers requiring connections between sites a considerable distance apart.

The exemption is required to protect existing contractual commitments and to provide a transitional period while EOI solutions are developed and implemented.

Annex 6

Proposed exemptions, agreements and variations wording

WHEREAS:

- (a) BT has offered and Ofcom have accepted Undertakings pursuant to the Enterprise Act 2002, which took effect on 22 September 2005 (the "Undertakings");
- (b) BT has requested Ofcom to agree that certain sections of the Undertakings shall not apply to certain products (or will be modified), and to agree the application of section 5.46.2 to certain products;
- (c) On or before 21 January 2006, BT lodged draft applications with Ofcom in relation to section 5.46.2. In addition, temporary exemptions and agreements up to and including 22 December 2006 have been granted for a number of products in letters exchanged between Ofcom and BT¹⁹;
- (d) Ofcom published a Statement on 15 June 2006 setting out certain exemptions and agreements to the Undertakings, which were agreed between Ofcom and BT;
- (e) This Agreement between Ofcom and BT sets out some further exemptions, agreements and variations (as set out in BT's requests annexed to the Ofcom Consultation Document dated 18 October 2006); and
- (f) Access Services as referred to in the Undertakings has been established as Openreach since 21 January 2006.

NOW THEREFORE:

Ofcom and BT hereby agree:

1. Pursuant to section 5.46.2(a) BT and Ofcom hereby agree that section 5.46.1 shall not apply to any AS inputs (including, in particular, processes), concerning the conversion process from ISDN or Highway to the following BT products, up to and including 31 March 2007, the day after which will serve as an RFS date:²⁰

- (a) BT IPstream 500
- (b) BT IPstream S products
- (c) BT IPstream Home products
- (d) BT IPstream Office products
- (e) BT IPstream Max and Max Premium products
- (f) BT Datastream Office products
- (g) BT Datastream Max and Max Premium products

2. Pursuant to section 5.46.2(a) BT and Ofcom hereby agree that section 5.46.1 shall not apply to any AS ASDH2-based inputs into MegaStream Ethernet up to and including 30 September 2006, the day after which will serve as an RFS date for AS's inputs into such product, and thereafter section 5.46.1 shall not apply in respect of the installed base and orders pending on 30 September 2006 up to and including 30 June 2010, the day after

¹⁹ Letters exchanged between Ofcom and BT on 20 January 2006, 19 April 2006 and 17 August 2006.

²⁰ See BT's request number 1 in Annex 5 of Ofcom's Consultation "Requests from BT for specified exemptions and agreements to its Undertakings under the Enterprise Act 2002 – Part 2", published 18 October 2006.

which will serve as an IBMC date for AS's inputs into such product. If completion of migration to BT's NGN 21CN is not going to be achieved by 30 June 2010, BT and Ofcom may agree a later IBMC date.²¹

3. Pursuant to section 5.46.1(g) BT and Ofcom hereby agree that section 5.46.1 shall not apply to any AS inputs into Featureline products for the following periods:

(a) from the RFS dates set out in Annex 1, paragraphs 1, 2 and 3, of the Undertakings up to and including 31 March 2008, the day after which will serve as an RFS date (which is the date by which new Featureline customers shall consume WLR3 as the AS input into Featureline); and

(b) from the IBMC dates set out in Annex 1, paragraphs 1, 2 and 3, of the Undertakings and thereafter up to and including 30 June 2010, the day after which will serve as an IBMC date (which is the date by which the installed Featureline base shall consume WLR3 as the AS input into Featureline).²²

4(a). BT and Ofcom hereby agree that pursuant to section 5.46.2(a) section 5.46.1 shall not apply with regard to any AS inputs (including in particular processes) into BT Wholesale to support the Featurenet product portfolio, up to and including 30 June 2008, the day after which will serve as an RFS date for AS's inputs into such products, and thereafter only in respect of the installed base up to and including 30 June 2010, the day after which will serve as an IBMC date for AS's inputs into such products. If completion of migration to BT's NGN 21CN is not going to be achieved by 30 June 2010, BT and Ofcom may agree a later IBMC date.²³

(b) BT and Ofcom hereby agree in accordance with section 5.12 as varied pursuant to paragraph 14 below that BT Wholesale may continue to carry out the same activities and processes as currently employed, including where this involves BT Wholesale carrying out activities that could be considered to fall within section 5.12 up to and including 30 June 2010 or such later date as BT and Ofcom may agree.

5. Pursuant to section 5.46.2(a) BT and Ofcom hereby agree that section 5.46.1 shall not apply to engineering services provided by AS to BT Wholesale and to the Downstream Division currently known as "BT Global Services" as follows:

(a) In relation to engineering services which are not provided by AS to other Communications Providers as at the date this Agreement takes effect, until the earlier of:

- the expiry or termination of each of the existing BT Wholesale and BT Global Services contracts as identified and agreed by BT and Ofcom at the date this Agreement takes effect; or
- the date such engineering services are launched by AS on an EOI basis (should AS decide to launch these services), which will serve as an RFS date, and for 12 months thereafter, the day after which will serve as an IBMC date.

(b) In relation to engineering services which are provided by AS to other Communications Providers at the date this Agreement takes effect, up to and including 31 December 2007, the day after which will serve as an IBMC date.

²¹ See BT's request number 2.

²² See BT's request number 3.

²³ See BT's request number 4.

By 31 March 2007, BT will provide to Ofcom a detailed list of specific engineering services falling under sub-paragraphs (a) and (b) above, respectively.²⁴

6. Pursuant to section 5.46.1(g) BT and Ofcom hereby agree that section 5.46.1 shall not apply to engineering services provided by AS field engineers to the Downstream Division currently known as "BT Global Services" in the Scottish Islands and the Scilly Isles up to and including 31 March 2008.²⁵

7. Pursuant to section 5.46.1(g) BT and Ofcom hereby agree that section 5.46.1 shall not apply to the services provided by AS to BT Wholesale in relation to the provision, repair, maintenance and upgrade of private circuits (including Partial Private Circuits).²⁶

In this Agreement "private circuit" means a circuit providing dedicated transmission capacity between an End-User's premise and another End-User's premise using an interface as defined at G.703 or G.957 or X.21, all as published by ITU-T.

8(a). BT and Ofcom hereby agree that pursuant to section 5.46.1(c) section 5.46.1 shall not apply with regard to the provision by AS to BT Wholesale of engineering services under the 21CN Network Uplift programme, on an exchange-by-exchange basis until six months after implementation of BT's NGN 21CN and cutover at the last exchange, and at the latest by 31 December 2011, unless otherwise agreed with Ofcom.

(b) BT and Ofcom hereby agree that pursuant to section 2.1 (as amended by Variation #5 to the Undertakings) that access is "permitted" by AS people to BT Wholesale systems and by BT Wholesale people to AS systems, until six months after implementation of BT's NGN 21CN and cutover at the last exchange, and at the latest by 31 December 2011, unless otherwise agreed with Ofcom. Such access shall be for ring- fenced teams and solely for the purpose of implementing the 21CN Network Uplift programme.

9(a). Pursuant to section 5.46.1(b) BT and Ofcom hereby agree that section 5.46.1 shall not apply to any AS inputs into:

(i) the HDF and LLU internal tie cables (provisioning and process):

- for all existing BT Wholesale DSLAM installations and any DSLAM provisioned or installed up to and including 30 June 2007, on a permanent basis;
- for extensions to existing BT Wholesale DSLAMs installed in existing line suites that may require additional cabling between the BT Wholesale DSLAM and the MDF (or ETAM or FTAM, as the case may be), where the orders are placed after 30 June 2007, up until the switchover to BT's NGN 21CN on an exchange-by-exchange basis and at the latest by 31 December 2011.

(ii) Service layer testing: until the earlier of:

- switchover to BT's NGN 21CN on an exchange-by-exchange basis and at the latest by 31 December 2011; or

²⁴ See BT's request number 5.

²⁵ See BT's request number 6.

²⁶ See BT's request number 7.

- redesign by BT Wholesale of its equipment and/or processes so as to do away with the need for service layer testing involving touching the MDF; or
- if reasonable demand from other Communications Providers exists, launch by AS of an appropriate EOI AS "engineering assistance product" to support 20CN DSLAM installations and providing service layer testing.

(b) BT Wholesale will use the new HDF and LLU internal tie cable product offered by AS for DSLAMs other than those described at (a)(i) above, up to and including switchover to BT's NGN 21CN. Thereafter, BT Wholesale will use the industry-agreed EOI 21CN solution for LLU.²⁷

10. Pursuant to section 5.46.2(a) BT and Ofcom hereby agree that section 5.46.1 shall not apply to any AS inputs into the redcare CCTV product, including continued access to AS systems, up to and including 30 September 2007, the day after which will serve as an RFS date for AS's inputs into such product, and thereafter section 5.46.1 shall not apply in respect of the installed base up to and including 30 June 2010, the day after which will serve as an IBMC date for AS's inputs into such product, unless otherwise agreed with Ofcom.²⁸

11. Pursuant to section 5.46.2(a) BT and Ofcom hereby agree that section 5.46.1 shall not apply to any AS inputs into BT's Media & Broadcasting business (including to provide for intermittent and occasional access) up to and including 31 December 2007, the day after which will serve as an RFS date for AS's inputs into such products, and thereafter section 5.46.1 shall not apply in respect of the installed base until Existing Contracts expire or are terminated, but at the latest up to and including 30 June 2010, the day after which will serve as an IBMC date for AS's inputs into such products, unless otherwise agreed with Ofcom.²⁹

In this paragraph 11 of the Agreement "Existing Contracts" means relevant BT contracts which are in effect prior to the date on which the new WES broadcasting service is available.

12. Pursuant to section 5.46.2(a) BT and Ofcom hereby agree that section 5.46.1 shall not apply to any AS inputs into BT Wholesale's managed radio communications services up to and including 30 September 2007, the day after which will serve as an RFS date for AS's inputs into such product, and thereafter section 5.46.1 shall not apply in respect of the installed base up to and including 31 March 2008, the day after which will serve as an IBMC date for AS's inputs into such product.³⁰

13. Pursuant to section 5.46.2(a) BT and Ofcom hereby agree that section 5.46.1 shall not apply to any AS inputs:

(a) into WaveStream Connect services of the Downstream Division currently known as "BT Global Services" up to and including 30 September 2007, the day after which will serve as an RFS date for AS's inputs into such product; and

(b) into BT Global Services WaveStream products in respect of the installed base for the duration of each of the remaining Existing Contracts; and

(c) to new BT Global Services supply of WaveStream Regional and WaveStream National services to End-Users. The exemption with regard to WaveStream Regional

²⁷ See BT's request number 9.

²⁸ See BT's request number 10.

²⁹ See BT's request number 11.

³⁰ See BT's request number 12.

and WaveStream National services will be reviewed by Ofcom and BT by 30 June 2010 in terms of both scope and duration.³¹

In this paragraph 13 of the Agreement "Existing Contracts" means relevant BT contracts which are in effect prior to or on 30 September 2007.

14. Pursuant to section 18.1 BT and Ofcom hereby agree that section 5.12 be amended by inserting "Except as otherwise agreed with Ofcom," at the beginning of this section.

Definitions and interpretation

Words or expressions in this Agreement have the same meaning as in the Undertakings.

References in this Agreement to section numbers are references to section numbers in the Undertakings.

In this Agreement "BT people" includes BT's employees, agents and sub-contractors as appropriate depending on the context.

For the avoidance of doubt, where it is herein agreed that the requirements of section 5.46.1 do not apply:

(a) information that would otherwise fall within the definition of Commercial Information, shall only do so if it relates to SMP Products; or, in the case of sections 6.10.3, 6.13 and 6.14, to products and services described in section 6.1.2.

(b) the requirement to provide the particular product or service by means of EOI systems and processes will also not apply and existing processes and systems may continue to be used. Such usage of existing processes and systems may continue beyond the dates that trigger systems separation obligations under sections 5.44, 5.45 and 8.5 of the Undertakings. However, this does not affect BT's obligations under sections 5.44, 5.45 and 8.5 of the Undertakings.

(c) the people providing the exempted services whilst working for AS, will not be deemed to work for the Upstream Division(s) or any of the Downstream Divisions, and hence section 5.35 will not apply. Similarly, section 5.35 does not apply where section 5.12 is varied as set out above in paragraph 4 of this Agreement.

Notices

Notices to be given under this Agreement shall be in writing.

³¹ See BT's request number 13.

Effect

Unless otherwise stated the agreements, exemptions and variations set out in this Agreement shall take effect immediately upon signature hereof on behalf of both parties.

Signed for and on behalf of British Telecommunications plc

Signature _____

Name _____

Position _____

Date _____

Signed for and on behalf of Ofcom

Signature _____

Name _____

Position _____

Date _____