



**Consultation on a Draft  
Direction concerning ADSL  
Broadband Access Migration  
Services; and  
a Draft Determination to resolve a dispute between  
Tiscali, Thus and BT concerning ADSL Broadband Access  
Migration Services**

**Consultation**

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## Section 1

# Summary

- 1.1 Tiscali and Thus referred a dispute to Oftel in June 2003 over the provision of broadband access migration services, in particular, with regard to BT's charge and lack of a 'fit for purpose' automated migration service.
- 1.2 In the Wholesale Broadband Access ("WBA") market review second consultation document, published on 16 December 2003, the Director General of Telecommunications (the "Director") proposed that BT has Significant Market Power ("SMP") in the market for asymmetric broadband origination in the UK (excluding the Hull area). The Director also stated that he would be setting out his proposals on broadband access migration in the form of a draft Direction shortly, partly as a result of responses to the earlier WBA first consultation and partly in response to the dispute that was referred to him by Tiscali and Thus. The draft Direction which accompanies this explanatory statement sets out Ofcom's proposals in this area.
- 1.3 Broadband access migration includes migration between any of the intermediate services of BT (IPStream) or other operators. This means that broadband access migration includes migrations from IPStream to ATM Interconnection based services; migrations between different ATM Interconnection based services; and migrations from ATM Interconnection based services to IPStream.
- 1.4 There are three reasons why the need for broadband access migration may arise: (i) as a result of the ISP choosing to switch some or all of its customer base to another operator; (ii) as a result of the end-user choosing to switch to a different ISP; if that ISP is being supplied by a different intermediate service provider, and (iii) as a result of a communications provider choosing, for commercial reasons, to switch all or part of its end-user base from BT's intermediate service (IPStream) to its own intermediate service. In all three cases, the end-user is unlikely to have any visibility of the need for broadband access migration, even where he has instigated the switch to a different ISP.
- 1.5 Ofcom considers the availability of an efficient broadband access migration service at a reasonable charge to be important for the promotion of effective competition. In order to be able to compete effectively with BT, it is necessary for an entrant to be able to compete for existing end-users, otherwise the new entrant would have to win a very large proportion of new ADSL end-users. It seems doubtful that it is realistic for operators to build their business cases on this basis. Therefore, the ability of other operators to migrate end-users and service providers efficiently and economically is important for competition.
- 1.6 Ofcom further notes that the development of the broadband access migration service and process mainly benefits BT's competitors, as it is necessary to enable those competitors to compete for the business of ISPs currently provided via BT's IPStream (via which the vast majority of ADSL internet access services are provided at present). Therefore, BT has had little commercial incentive to develop an efficient automated migration process on a timely basis; indeed the reverse is true.
- 1.7 Given BT's strategic incentive to choose a relatively costly and inefficient migration procedure to deter competitors from attracting BT's existing customers, Ofcom considers it appropriate to consider efficiently incurred costs when setting the charge for providing broadband access migration services, rather than simply setting it on

the basis of BT's actually incurred costs. Therefore, Ofcom proposes that BT should provide broadband access migration services on reasonable terms and conditions, at a charge of £10.47 per migration, based on BT's efficiently incurred costs. Ofcom has set out the basis on which it calculated this charge, which naturally depends to some extent on the assumptions used. Should this consultation process reveal that other assumptions are to be preferred, this will feed through into the charge finally determined.

- 1.8 In addition, Ofcom considers that regulatory intervention is required to direct BT to provide broadband access migration service on reasonable terms and conditions. Therefore, Ofcom proposes to direct BT to provide broadband access migration services within the same timescales as the processing of a new 'provide' order for an end-user, and with end-user downtime limited to no more than 30 minutes in a specified 24 hour period per migration.
- 1.9 Ofcom considers that the proposals contained in this draft Direction are objectively justifiable in relation to wholesale broadband access and Ofcom's aim of promoting effective competition in the market for intermediate broadband services, they do not unduly discriminate, and they are transparent and proportionate in relation to what they are intended to achieve.

## Section 2

# Introduction

## Background

- 2.1 The Director proposed in the Wholesale Broadband Access (“WBA”) market review second consultation document (<http://www.ofcom.org.uk/consultations/past/wbamp/wbam/?a=87101>) (“Second Consultation”), published on 16 December 2003, that BT has SMP in the following markets:
- i. asymmetric broadband origination market in the UK (excluding the Hull area); and
  - ii. broadband conveyance market in the UK.
- 2.2 Given the proposed position of SMP held by BT in those markets, i.e. its ability to behave to an appreciable extent independently of competitors, customers and ultimately consumers, the Director proposed to impose a number of conditions, including the requirement to provide Network Access on reasonable request, and on reasonable terms, conditions and charges.
- 2.3 It was stated in the WBA market review Second Consultation that the Director had considered the issue of the migration of end-users between different providers of intermediate products, partly as a result of responses to the first consultation on the WBA market ([http://www.ofcom.org.uk/static/archive/oftel/publications/eu\\_directives/2003/eu\\_dsl/dsl.pdf](http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/eu_dsl/dsl.pdf)) (“First Consultation”) and partly in response to a dispute that was referred to him. The Director further stated that he would be setting out his draft proposals on the migration issue in the form of a draft Direction shortly. The draft Direction which accompanies this explanatory statement sets out Ofcom’s proposals in this area. The view and proposals set out in this document assume that Ofcom confirms the position of the Director in its final statement on the WBA market review.

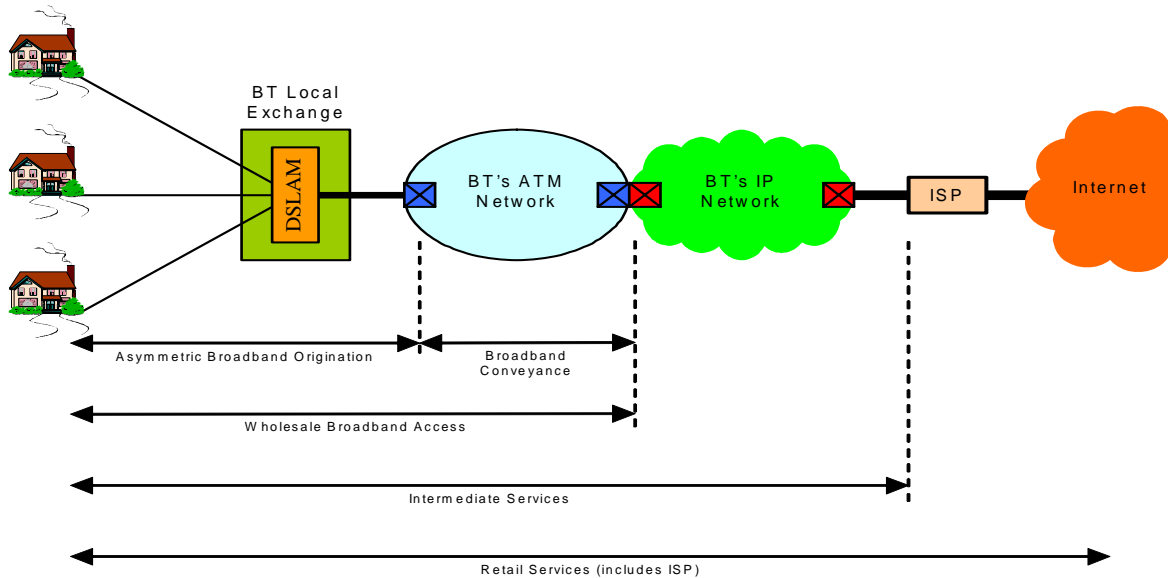
## The products and levels in the vertical chain

- 2.4 As explained in paragraph 2.1 above, the broadband markets to which the broadband access migration services relate are under review. This section briefly sets out the terminology used to identify the different vertical levels in the supply of asymmetric broadband internet access services.
- 2.5 Potentially, there are five distinct levels in the value chain. Each level includes the previous level as one of its inputs. Starting from the end-user, the levels are as follows:
- i. the local access network;
  - ii. broadband origination;
  - iii. broadband access (origination plus conveyance);
  - iv. services delivered to service providers (resale services, e.g. IPStream and BT Central); and

- v. services delivered to consumers (business or residential) e.g. broadband internet access.

2.6 The diagram below illustrates the services in question, focusing on the technology, namely Asymmetric Digital Subscriber Line (“ADSL”), principally used by BT to offer broadband internet access. This diagram is displayed for illustrative purpose only, as the asymmetric broadband services markets include services provided in other ways e.g. broadband cable and unbundled loops.

Figure 1



2.7 The diagram illustrates, in terms of BT’s network, the various vertical levels in relation to broadband internet access. For the remainder of this document, services at levels (ii) and (iii) are referred to as being at the wholesale level; services at level (iv) are referred to as “intermediate services”; and services at level (v) as “retail services”.

2.8 At the retail level, end-users buy retail services (such as broadband internet access) from service providers (e.g. BT Openworld, AOL, Freeserve). In order to supply these retail services, the service providers buy intermediate services (e.g. IPStream) from wholesale operators. Sometimes wholesale suppliers self-supply to their own service provider. For example, in the intermediate market, BT is a wholesale supplier selling IPStream to its own service provider as well as to other service providers. Other suppliers in the intermediate market include, for example, the cable companies.

2.9 In the WBA market review, Ofcom has recently consulted on whether to require BT to provide the wholesale broadband access products (Asymmetric Broadband Origination and Broadband Conveyance) to allow operators to compete in the provision of intermediate services, based on its proposed SMP findings in those markets. These operators can then add their own IP layer to these wholesale inputs to provide intermediate services. For the purposes of this document, BT’s intermediate service is referred to as IPStream, and the wholesale input provided by BT to competing network operators is referred to as ATM Interconnection. For the purposes of broadband access migration, the difference between ATM Interconnection and DataStream is not relevant, and for the purposes of this document, any reference to ATM Interconnection also includes DataStream, and vice

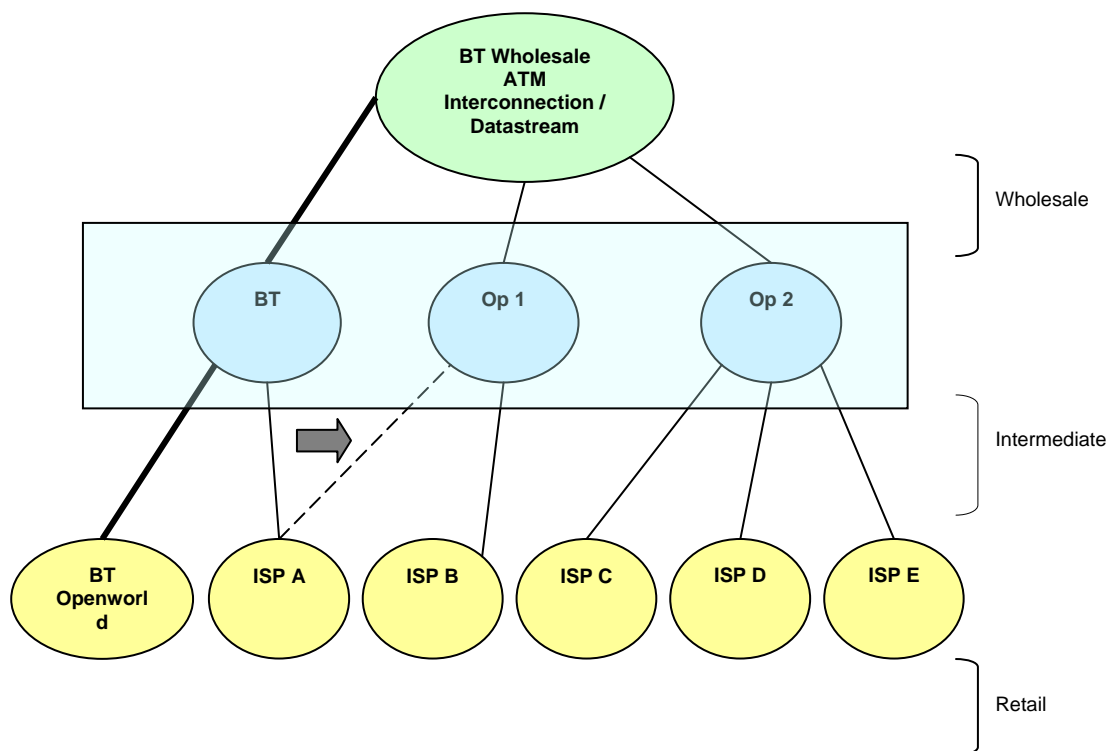
versa. ATM Interconnection allows operators to benefit from their own networks and to differentiate their products.

- 2.10 In this document the term ‘ISP’ refers to Internet Service Providers who purchase intermediate services and sell retail services to consumers. The term ‘operator’ refers to providers of intermediate services who purchase (explicitly, or implicitly in the case of self provision) wholesale broadband access, specifically DataStream / ATM Interconnection.

## Broadband Access Migration

- 2.11 Migration services need to be purchased by operators in order for ISPs to switch between different providers of intermediate services. Availability of migration is thus essential both in the short term and in the long term to enable effective competition in the provision of intermediate services.

Figure 2



- 2.12 The diagram above illustrates the meaning of broadband access migration services. Broadband access migration includes migration between any of the intermediate services of BT (IPStream) or Operators 1 and 2. This means that broadband access migration includes migrations from IPStream to ATM Interconnection based services; migrations between different ATM Interconnection based services; and migrations from ATM Interconnection based services to IPStream.

- 2.13 There are three reasons why the need for broadband access migration may arise: (i) as a result of the ISP choosing to switch some or all of its customer base to another operator; (ii) as a result of the end-user choosing to switch to a different ISP; if that ISP is being supplied by a different intermediate service provider, and (iii) as a result of a communications provider choosing, for commercial reasons, to switch all or part of its end-user base from BT's intermediate service (IPStream) to its own intermediate service. In all three cases, the end-user is unlikely to have any visibility



of the need for broadband access migration, even where he has instigated the switch to a different ISP.

- 2.14 Broadband access migration involves changes at the wholesale broadband origination level (more specifically, changes at the Digital Subscriber Line Access Multiplexer (“DSLAM”)) to ensure that traffic is routed to the appropriate operator. In effect, when a migration takes place BT is transferring the broadband origination from one operator to another. These changes are described in greater detail in paragraphs 3.5 and 3.6 below.
- 2.15 As explained above at paragraph 2.1, it is proposed that BT has SMP in the markets for (i) asymmetric broadband origination market in the UK (excluding the Hull area); and (ii) broadband conveyance market in the UK. Given BT’s network position and proposed SMP in the provision of wholesale broadband access services, it is BT that needs to perform the migrations on its network to enable ISPs to switch between different providers of intermediate services, and end-users to switch between ISPs where service is provided via a different intermediate service.
- 2.16 BT currently offers a broadband access migration service which is charged at £50 (with a special offer of £25 until the end of April 2004), under an extension of its pilot scheme scheduled to run between 28 July and 31 August 2003, for migration orders involving the same ISP. From 1 November 2003, it has also been possible to migrate with a simultaneous change of ISP. Approximately 1,000 migration orders have been processed in total since July 2003.

## **Competition Issues**

- 2.17 Ofcom considers the availability of broadband access migration at a reasonable charge to be important for the promotion of effective competition in the markets. In order to be able to compete effectively with BT, it is necessary for an entrant to be able to compete for existing end-users, otherwise the new entrant would have to win a very large proportion of new ADSL end-users. It seems doubtful that it is realistic for network operators to build their business cases on this basis. Therefore, the ability of other operators to migrate end-users and service providers efficiently and economically is important for competition.

## **Scope and Legal basis for Draft Direction**

- 2.18 Ofcom has examined the costs of broadband access migration and is proposing in this draft Direction that appropriate broadband access migration charging arrangements and service level that should apply.
- 2.19 Ofcom proposes to issue a Direction under the proposed SMP Conditions EA1.1 and EA1.2, which states that the provision of Network Access by the Dominant Provider, as required by proposed SMP Conditions EA1.1 and EA1.2, shall be provided on fair and reasonable terms, conditions and charges as Ofcom may from time to time direct. Ofcom proposes to issue a Direction on the assumption that the proposed SMP designation and SMP Condition EA1 contained in the WBA consultation document is confirmed. As a result the Direction will have effect across the entire industry for that market.
- 2.20 Thus and Tiscali are in dispute with BT over the cost of BT’s provision of broadband access migration services to them, and the lack of a fit for purpose migration process, as they referred a dispute to Oftel in June 2003. Ofcom will separately

propose to resolve that dispute between BT and Thus/Tiscali in a Draft Determination under section 188 of the Communications Act 2003 (the "Act"), attached at Annex 5.

### **Outline of the rest of the document**

2.21 The following sections cover:

- costs of Broadband Access Migration (Section 3)
- proposed remedies (Section 4)
- details of the consultation process (Section 5)

## Section 3

# Cost of Broadband Access Migrations

- 3.1 In order to determine a charge for broadband access migration, it is necessary to investigate what are the efficiently incurred costs of broadband access migration.
- 3.2 The network architecture and the underlying technology used to support BT's ADSL based broadband services means that BT will need to perform certain network alterations to enable ISPs to switch between operators providing intermediate services, end-users to switch between ISPs supplied by different intermediate service providers, and operators to switch all or part of their end-user base from BT's intermediate service to their own intermediate service. Depending on the circumstances of these network alterations, the costs will vary. This is discussed below.

## Factors affecting cost of migrations

### Software versus hardware migration

- 3.3 Broadband access migrations will require either software changes or hardware changes to be carried out. In order to understand the differences between these, some network technicalities are described below.
- 3.4 The ATM Interconnection service is composed of two main components: end-user access ("EUA") and virtual paths ("VP"s). An EUA is the ADSL connection between the end-user and the DSLAM at the local serving exchange. A VP is a path that is assigned to an operator, which goes across the ATM network, between the DSLAM and the point of hand-over.
- 3.5 If there is only one operational DSLAM within an exchange, then it follows that all of the EUAs served from that exchange are connected to the same (single) DSLAM. In such a situation, broadband access migration can be achieved by changing the mapping between EUAs and VPs within the DSLAM. This is a software change, sometimes described as 'port re-use'. For example, if a particular end-user is on IPStream, then the EUA will be mapped to a VP used by BT. In order to migrate this end-user to another operator's intermediate service, it is necessary to re-map the EUA to a VP used by that operator. It is generally considered that the variable cost of performing such a software re-mapping exercise should be low.
- 3.6 However, in some exchanges, particularly the larger exchanges that were enabled early in BT's rollout, there is more than one operational DSLAM. The reason for this is that when a DSLAM becomes full, it is augmented with another one. The existence of multiple DSLAMs at an exchange complicates the migration process. The complication arises when the migrating end-user and the alternative operator's VP are on different DSLAMs, as in this situation it is not possible to re-map the EUA. In fact, given the current network architecture, the only practical way to facilitate this type of migration is physically to move the EUA to the DSLAM where the alternative operator is present. A physical move of this nature is a hardware change and it is achieved by changing the jumpers on the main distribution frame ("MDF") within the exchange.
- 3.7 The cost of performing a hardware re-jumpering exercise is likely to be significantly higher than the software changes because it involves manual intervention, as an

engineer is required to carry out the necessary steps (see paragraph 3.6 above) at the exchange.

- 3.8 Hence the estimation of the costs of migration will depend on the proportion of software and hardware changes required to provide a migration service.

### **Multiple versus single migrations**

- 3.9 The costs of migration are also influenced by whether single or multiple migrations are being carried out. The 'single' versus 'multiple' distinction will often relate to two different scenarios when migration takes place.
- 3.10 Multiple migrations are likely to occur when an ISP chooses an alternative provider of intermediate services. This will require broadband access migrations of its customers from its existing provider of intermediate services to the alternative provider of intermediate services.
- 3.11 A single migration will occur when an end-user switches to an ISP who uses a different intermediate service provider compared to the end-users original ISP. This is likely to occur on an individual basis. The corresponding migration order will be referred to as a single migration.
- 3.12 In practice, however, if the volume of migration is large enough, physical migrations requiring hardware change, even though emanating from an individual, are likely to be carried out in batches. That is, hardware migrations on the same distribution frame will be carried out in a batch by one engineer, even though they might have originated as separate single migration requests and/or from different wholesale operators.
- 3.13 When an order covers at least 10 end-users, BT uses an additional project management service to manage the migration process. This is distinct from multiple migration which is a basic service and does not use the additional management service to manage the migration process. It is likely that a request for multiple migrations will cover more than ten end-users at once, and therefore the provider could, if he wished, purchase managed migrations instead of multiple migrations.

### **BT's migration cost levels**

- 3.14 As part of the investigation, Ofcom requested information from BT about migration volumes and costs. BT supplied information on the expected volumes and costs of migration. This cost information falls into two cost categories:
- **System set-up costs**, which are the costs of developing and implementing the software needed for the capability of providing migration and the cost of modifying the support system; and
  - **Per individual migration costs**, which are the costs of carrying out the migration of the ADSL service supplied to a specific end-user.
- 3.15 Ofcom understands that BT's development of an automated migration service is proposed to take place in two phases, with an associated reduction in the level of variable costs resulting from greater automation, and the introduction of port re-use (see Paragraph 3.5 above).
- 3.16 The first phase, which is due to be completed in October 2004, will introduce automation (to replace the current manual process), together with the facility for BT

to re-use ports at the DSLAM using a software change, as broadband access migration will be included on BT's main systems. However, BT will only be able to process migrations using its process of 'managed migrations'. Therefore, from October 2004, single orders would need to be submitted together in batches of at least 10 orders. Prior to October 2004, BT has no facility to handle single migration orders.

- 3.17 During the second phase, which is due to be completed by March 2005, BT's automated system will be extended to include single migrations, with further general automation reducing the time spent on 'managed migrations', and enhanced volume capability.

**BT's estimated volumes**

- 3.18 BT has provided the following forecast volumes for broadband access migrations:

Forecast volume of migrations	Year				
	2004/05	2005/06	2006/07	2007/08	2008/09
Type of migration					
IP-DS	[...]	[...]	[...]	[...]	[...]
DS-DS	[...]	[...]	[...]	[...]	[...]
DS-IP	[...]	[...]	[...]	[...]	[...]

The table above sets out BT's forecast figures for Broadband Access Migrations for the period 2004/05 - 2008/09. These figures have been removed from the non-confidential version of this document.

- 3.19 Ofcom notes that the volumes of broadband access migrations are closely dependent on the level of the migration charge. Ofcom makes no judgment on the accuracy of this volume forecast, but considers that it is within the range of what could be considered a reasonable basis for conducting the analysis for the purposes of this decision. Ofcom notes that volumes of churn will be higher, as not all churn involves migration.

**Question 1:** *What volumes of Broadband Access Migration do stakeholders expect over the next 5 years? It would be helpful for responses to be set out in the table format included above at Paragraph 3.18, and for responses to include an explanation of the assumptions made, for example, the levels of churn and the size of the market.*

### Fixed costs (system set-up costs)

3.20 BT has stated that in total, its fixed costs are:

2002/03	[...]
2003/04	[...]
2004/05	[...]
<b>Total</b>	<b>[...]</b>

The table above sets out BT's total fixed costs for Broadband Access Migration for years 2002/03, 2003/04, 2004/05. These figures have been removed from the non-confidential version of this document.

### Variable costs (per individual migration costs)

3.21 In BT's description of its variable costs, BT distinguishes two types of migration: single and managed migrations (see paragraphs 3.9 – 3.13 above). BT identifies the per individual migration costs for each type and indicates the extent to which these individual migration costs decrease over time, as a result of automation.

3.22 BT derives an average cost per migration based on an assumption about the relative proportions of single and managed migrations. BT assumes that for the period from October 2004 to March 2005, 75% of the migrations will be managed orders (with the remaining 25% being single orders), and that this will reduce to 50% from March 2005 onwards. There will be no facility for BT to handle single orders prior to October 2004, and from October 2004 to March 2005, BT will process any single orders through its system of 'managed migrations'. Full automation for single orders will only be introduced in March 2005.

3.23 BT also incorporates another factor in its variable migration costs: the proportion of migrations which can be carried out using port re-use (see paragraph 3.5 above), rather than requiring a manual hardware change. BT has assumed that initially 80% of migrations can be completed using a software change, with the remaining 20% requiring a hardware change. However, BT assumes that as the take up of broadband continues to grow, reducing the number of available ports on each DSLAM, there will be less scope for port re-use at the DSLAM. Therefore BT has assumed the proportion of migrations requiring a software change will drop to 65% in March 2005, with a further reduction to 50% in March 2006. Ofcom's initial view is that this assumption appears not to be unreasonable.

3.24 In this document, references to BT's 'actually incurred costs' refer to the fixed and variable costs as submitted by BT.

### Efficiently incurred costs

3.25 One of the objectives in setting charges is to ensure that charges encourage efficiency and incentives to minimise costs. In general, ensuring that a firm with market power is efficient can be achieved in a number of ways, for example, price caps. However, cases involving costs of switching between different providers may raise issues that go beyond the inefficiency that may be associated with a dominant supplier.

- 3.26 In such cases, a dominant vertically integrated supplier may have a strategic incentive to behave in a way that is deliberately inefficient in the provision of services which allow switching to occur because it slows down the entry of its competitors in downstream markets. The inefficiency may manifest in different ways, for example, by delaying the launch of its products, by not introducing efficient processes and technology to allow switching to occur or by setting a high charge for these services.
- 3.27 In the present case of broadband access migration, Ofcom believes that BT has a strategic incentive in making migration unattractive in order to protect its existing customer base. In other words, BT has an incentive to choose a relatively costly and inefficient migration procedure to deter competitors from attracting BT's existing customers, especially as BT does not need broadband access migration itself (at least in the short run).
- 3.28 The continuation of this strategic incentive will result in an inefficient migration process which will have the effect of delaying and reducing competition in downstream markets. Therefore Ofcom considers it appropriate to consider efficiently incurred costs when setting the broadband access migration charge, rather than simply setting it on the basis of BT's actually incurred costs. Ofcom considers that the efficiently incurred costs can be estimated by adjusting BT's costs. This is explained in more detail in the remainder of this chapter.

### **Derivation of efficiently incurred costs**

- 3.29 In order to derive what the efficiently incurred costs would be, Ofcom has considered the sources of BT's actually incurred fixed and variable costs and has considered to what extent an efficient operator would have incurred similar costs. Ofcom has also considered the timing of BT's development of its migration process, and the introduction of automation.

### **Timing of BT's development**

- 3.30 It appears that BT has received a variety of strong signals from industry over the last 2 years that an economical and efficient broadband access migration service was essential for interconnecting operators to be able to effectively compete in the market for intermediate services.
- 3.31 In June 2002 the Director required BT to provide Network Access in the form of ATM Interconnection to competing operators on reasonable terms. Following that Direction, Tiscali requested broadband access migration from BT in July 2002, and Thus requested broadband access migration in October 2002. Following the breakdown of those negotiations when the parties could not agree on a price, Tiscali and Thus submitted a dispute to Oftel in June 2003. In a letter from BT to Tiscali dated 12 March 2003, BT stated that it was working on a 'strategic solution' which would introduce automation, and have additional functionality such as singleton migrations and regrades. BT stated that it was aiming to deliver this by the end of the calendar year i.e. December 2003. The issue of broadband access migration was also discussed at industry forums early in 2003. Ofcom provisionally concludes from this evidence that clear signals had been given to BT about the need for broadband access migration, and that it appears from BT's responses, to have been recognised by BT.
- 3.32 Ofcom further notes that the development of the broadband access migration process mainly benefits BT's competitors, as it is necessary to enable those

competitors to compete for the business of ISPs currently provided via BT's IPStream (via which the vast majority of ADSL internet access services are provided at present). Therefore, BT has had little commercial incentive to develop an automated migration process on a timely basis; indeed the reverse is true.

- 3.33 The development of an automated migration process appears to be a standard type of development work. The development of an automated migration process would enable a significant proportion of migrations to be carried out by means of a software change. It would also aim to automate and rationalise the handling of migration requests as much as possible.
- 3.34 BT only agreed with Oftel's view that a significant proportion of broadband access migrations would require a software change rather than a hardware change, in November 2003, during the progress of this investigation. Initially, BT had stated that only 25% of such migrations could be completed via a software change. Ofcom considers that an efficient operator would have recognised the potential for port re-use much sooner. Furthermore, Ofcom understands that the development to take advantage of such port re-use will only be made available to other operators in October 2004, almost 12 months after BT agreed that a large proportion of migrations could be carried out in this way.
- 3.35 Given its views on automation and port re-use as set out above, Ofcom considers that an efficient operator would have invested in the development of an automated migration process (including automation to implement software migration relating to port re-use) soon after the industry expressed a need for such a migration service. Ofcom has provisionally concluded that it is reasonable to assume that an automated system would have been introduced by an efficient operator by April 2004, at least 6 months before BT's development is due to be completed. This would have been achieved either by starting development sooner, or by completing it over a shorter period of time. Therefore Ofcom has adjusted BT's costs by bringing forward the dates at which the results of each phase of automation become available by six months. There may be a case for estimating an even earlier development of an automated system on the basis of efficiently incurred costs.
- 3.36 Bringing forward the date on which automation becomes available has two effects. Firstly, it shifts the variable costs series by six months, enabling customers to benefit from reduced variable costs six months earlier than planned by BT. As a result, customers benefit immediately from the outcomes of the first automation phase and avoid paying inefficiently high variable costs, which correspond to the first six months of BT's schedule of actually incurred costs.
- 3.37 Secondly, Ofcom considers that development costs totalling £160,000 which were incurred for developments which are due to cease functionality at the end of September 2004 should be removed because these development expenditures do not contribute to BT's development of an automated migration service.

### **Basic migration service**

- 3.38 BT has stated that its variable costs for managed migrations are higher than its costs for single migrations, due to an element of 'value added' services. These appear to be essentially project management services and not directly related to the provision of broadband access migration itself. During the period prior to automation, BT has used project management to link and co-ordinate a 'cease' order with a 'provide' order, in order to ensure the migration process progresses smoothly and to minimise the disruption caused by downtime for the end-user. It has been necessary for BT to



carry out migrations in this way as the automated migration process is not yet available. However, BT has also included value added services in its assessment of costs for managed migrations even when using the proposed automated process, in its information provided to Ofcom.

- 3.39 Ofcom is proposing to require the provision of a basic migration service (including both single and multiple migrations), which would exclude value added services currently provided under the managed migrations process. Therefore, Ofcom has based the proposed broadband access migration charge on BT's costs for singleton migrations rather than the cost of managed migrations. BT has stated that it provides the value added services in response to demand for those services from operators. There is nothing to prevent BT offering a 'value added' migration service at a higher charge, in addition to the basic migration service, if there is sufficient demand for such a product. However, Ofcom considers that operators should have the choice as to whether they wish BT to carry out the additional processing.

**Question 2:** *Would stakeholders expect there to be economies of scale resulting from multiple migrations being processed together as a batch? If so, please provide details of the types of economies of scale which would be expected and explain why they would be expected to arise, and an indication of the magnitude of such economies of scale. Please distinguish between software and hardware migrations whenever necessary.*

#### **Fixed costs**

- 3.40 For the reasons stated in paragraph 3.39 above, Ofcom is using the development costs for single migrations in the calculation of the broadband access migration charge, rather than the development costs of managed migrations. Costs of £306,500 were incurred for developments which only benefited BT's managed migration service. Therefore Ofcom has removed this amount from the total of fixed costs.
- 3.41 For reasons stated in paragraph 3.37 above, Ofcom considers that development costs totalling £160,000 that were incurred for developments which are due to cease functionality by the end September 2004 should be removed.
- 3.42 In addition, the description of the SFJ development (system transformation for order handling and fulfilment) includes functionality for IPStream-IPStream migrations, which do not fall within the definition of broadband access migrations. Therefore, not all of the cost of the SFJ development is necessary for broadband access migration. Ofcom considers that a reasonable approach to calculating the appropriate apportionment for broadband access migration (and hence not including the costs associated with IPStream-IPStream migration) is to split the costs according to the relative expected volumes of each type of migration.
- 3.43 BT has supplied the following forecast volume figures for IPStream to IPStream migrations:

Forecast volume of migrations	Year				
	2004/05	2005/06	2006/07	2007/08	2008/09
Type of migration					
IP-IP	[...]	[...]	[...]	[...]	[...]

The table above sets out BT's forecast figures for IPStream to IPStream migrations for the period 2004/05 - 2008/09. These figures have been removed from the non-confidential version of this document.

3.44 Ofcom considers that the relevant amount of SFJ costs is [...], rather than the total figure of [...] provided by BT, on the basis of the volumes above. Therefore, Ofcom has removed a further £156,050 from the total of fixed costs.

**Question 3:** *What volumes of IPStream to IPStream migration do stakeholders expect over the next 5 years? It would be helpful if responses are set out in the table format given in Paragraph 3.43 above, and include an explanation of the assumptions made, for example, on the levels of churn and the size of the market.*

### Other assumptions used to derive the migration charge

#### Appropriate period of cost recovery

3.45 Ofcom considers that a period of 5 years from 2004/05 is an appropriate period for BT to seek to recover its costs, as that is a reasonable estimate of the life expectancy of the broadband access migration service. BT forecasts indicate that it expects broadband access migrations to continue to occur until at least 2008/09.

#### Cost of capital and inflation adjustment

3.46 Ofcom has applied the standard regulated cost of capital, 13.5%, while deriving the proposed charge. In addition, Ofcom has had to adjust some of BT's figures for inflation as they were not expressed in nominal terms. In order to do this, Ofcom has used a 2.8% inflation rate as implied by the yields on Government bonds and Government index-linked bond.

### Preliminary conclusions

3.47 For the reasons outlined above, Ofcom has assessed the costs of broadband access migration on the basis of the costs incurred by an efficient operator offering a basic migration service. Ofcom believes that an estimate of these costs can be derived by removing from BT's fixed costs all those that do not relate to basic migration services and by bringing forward by six months the dates at which the results of each automation phases become available. In practice this leads Ofcom to remove £622,550 from the total of fixed costs and to enable customers to benefit earlier from reduced variable costs.

## Section 4

# Remedies

- 4.1 Under the assumption that BT has SMP in the market for asymmetric broadband origination (see paragraph 2.1 above), it is appropriate for BT to offer an efficient broadband access migration service. Otherwise, there would be a risk of significant restriction of competition, in particular, in the provision of services to ISPs, as outlined in paragraph 2.11 above.

### Ofcom's aims

- 4.2 Ofcom's principle duty as set out in Section 3 of the Act, is to further the interests of citizens in relation to communications matters, and to further the interests of consumers in relevant markets, where appropriate by promoting competition. Section 4 of the Act sets out Ofcom's duties for the purposes of fulfilling Community obligations. In regard to Ofcom's proposals for Broadband Access Migration, Ofcom has considered all of these requirements, in particular, the requirement for Ofcom to promote competition in relation to the provision of electronic communications networks and electronic communications services.
- 4.3 As explained in Paragraph 2.1 above, the Director proposed in the (WBA) Second Consultation that BT has SMP in the market for asymmetric broadband origination market in the UK (excluding the Hull area) and the broadband conveyance market in the UK.
- 4.4 Assuming Ofcom confirms the proposed finding of SMP held by BT, Ofcom notes BT's ability to behave to an appreciable extent independently of competitors, customers and ultimately consumers, particularly with regard to broadband access migration, which is required by BT's competitors to enable them to compete for existing ADSL end-users. Ofcom notes that BT has an incentive to set a high migration charge to deter migration, as BT gains a strategic advantage from protecting its large share of existing ADSL end-users. It is necessary for other operators to be able to compete to supply those existing end-users otherwise the operators would have to win a very large proportion of new ADSL end-users. It seems doubtful that it is realistic for operators to build their business cases on this basis. Therefore, Ofcom's aim in setting the broadband access migration charge, and the fit for purpose requirements, is to promote effective competition in the provision of intermediate services.
- 4.5 The issue of whether an allowance for migration should be included in the regulated margin between IPStream and DataStream/ATM Interconnection is to be considered as part of the separate consultation on setting that margin, which is expected to be published around the end of May 2004, and does not form part of this consultation. However, assuming a decision is made to include an adjustment in the margin to cover the expected costs of migration, Ofcom has considered in this consultation whether that mechanism alone would be sufficient to have the necessary impact on the volumes of migration to promote effective competition. Since any adjustment to the margin to reflect the migration charge would be averaged across new and existing customers, the migration of an existing end-user could be a significantly loss-making activity depending on the level of the migration charge (and on the attrition rate of migrated customers). So operators would have an incentive to recruit new end-users, rather than migrated end-users. Even though other operators are put in a position where they can compete on average against BT for new and existing end-

users, it is anticipated that the higher the charge, the greater the profitability gap between attracting new and existing end-users and the lesser, relatively speaking, the competition for existing end-users. Therefore, Ofcom has reached the initial conclusion that an allowance in the margin alone would not be sufficient to ensure that the migration volumes necessary to stimulate effective competition materialise.

- 4.6 In determining the appropriate broadband access migration charge Ofcom considers it is appropriate to apply the six principles of cost recovery described below, which were developed by Oftel in the context of number portability and endorsed by the Monopolies and Mergers Commission<sup>1</sup>. In addition, Ofcom must have regard to its statutory duties and obligations as set out in the Communications Act 2003, in particular, as set out in sections 3, 4 and 49 of the Act.

### Application of the principles of cost recovery

- 4.7 The six principles of cost recovery are:

- **Cost causation:** the cost should be recovered from those whose actions cause the costs to be incurred at the margin. This principle is usually the starting point for a cost recovery mechanism analysis on the grounds that economic efficiency is enhanced by requiring parties to pay costs which they directly cause to be incurred;
- **Effective competition:** the mechanism for cost recovery should not undermine or weaken the pressure for effective competition;
- **Distribution of benefits:** the costs should be recovered from the beneficiaries especially where there are externalities;
- **Cost minimisation:** the mechanism for cost recovery should ensure that there are strong incentives to minimise costs;
- **Reciprocity:** where services are provided reciprocally, charges should also be reciprocal;
- **Practicability:** the mechanism for cost recovery needs to be practicable and relatively easy to implement.

- 4.8 When applying these principles, the starting point is generally cost causation, on the grounds that economic efficiency is enhanced by requiring parties to pay costs which they directly cause to be required. The other principles are then considered, which may require modification of the initial position.

#### Cost causation

- 4.9 As stated above, the cost causation principle is generally the starting point for cost recovery, since it is economically efficient to recover costs from those who cause the costs to be incurred. However, consideration of other principles may require departure from this principle, if the circumstances require it.
- 4.10 One interpretation of the principle of cost causation requires that both set up costs and individual migration costs should be recovered from the operators of intermediate services, since migration costs will arise because of specific requests from these operators to migrate end-users. The operator should thus pay a migration charge covering the migration costs to BT who carries out the migration at the wholesale broadband access level.

<sup>1</sup> Telephone Number Portability: A Report on a reference under s13 of the Telecommunications Act 1984 (MMC, 1995).

### **Effective competition**

- 4.11 When applied to the intermediate service market, the principle of effective competition implies that set up costs and individual migration costs should be recovered in a way which allows suppliers of intermediate services to compete against BT's provision of IPStream for both new and existing end-users, and therefore promotes effective competition.
- 4.12 If the broadband access migration charge was based solely on the principle of cost causation, there is potentially a concern that operators may find it difficult to compete for the installed base of customers, since they will have to pay a migration charge in order to win these customers whereas BT is unlikely to face that charge since an overwhelming majority of the installed base of customers is supplied by BT.
- 4.13 For the operators competing for ISPs' existing customers a migration charge per customer creates a gap between attracting new customers and existing ones. To attract an existing customer implies paying a migration charge and this means an increase in wholesale costs for the operators compared to those for acquiring a new customer. This is expected to hamper effective competition. If competing suppliers of intermediate services do not find it commercially viable to migrate existing end-users because of the level of the migration charge, then it is expected that there would be a (very) large segment of the market that these operators would not be in a position to compete for against BT. This market segment is estimated to represent about 98% of the addressable market (i.e. excluding cable operators who self supply) at the moment, and is expected to represent about 25% to 30% in five years time.
- 4.14 As a charge per migration makes attracting existing end-users less profitable than acquiring new end-users and hence hinders effective competition, a cost recovery mechanism that would support the effective competition principle would be one that, among other things, makes the acquisition of existing end-users sufficiently commercially viable compared to the acquisition of new end-users.

### **Distribution of benefits**

- 4.15 This principle suggests that the set up costs and costs of individual migrations should be recovered from all those who benefit from a viable migration service being available.
- 4.16 Since a viable migration service will stimulate competition in the intermediate service market, the distribution of benefits principle suggests that the migration costs can be recovered from those who will benefit from increased competition in that market. Ultimately these are the retail end-users who would benefit from competition in terms of lower prices, greater choice and innovation.
- 4.17 The distribution of benefit principle would in this case suggest that migration costs could ultimately be recovered from these retail end-users. This could be implemented for example by ensuring that the price the retail end-users pay for the asymmetric broadband services incorporates an element aimed at recovering migration costs.
- 4.18 Two categories of retail end-users can be identified: the end-users of ADSL internet access and the end-users of asymmetric broadband internet access services in general. Indeed it is expected that increased competition among ADSL service providers will also in turn benefit all end-users of asymmetric broadband services

because it will increase competitive pressure at the retail level in general, leading to falling prices and increased quality of service.

### **Cost minimisation**

- 4.19 Since BT does not need to migrate end-users in order to compete at present, (whereas its competitors might) and given that currently the migration costs are fully borne by the competitors, BT does not have any incentive to minimise any element of the migration costs.
- 4.20 There are various ways by which a cost recovery mechanism introduces incentives to minimise costs. A standard way is to set up a fixed charge. A fixed charge would provide BT with an incentive to minimise its costs, in order to increase its profits. A supplier is also encouraged to minimise its costs when it purchases the product or service itself and hence has to pay the charge. The development of effective competition in the intermediate service market might in the future lead BT to request migration from an alternative intermediate services supplier. When this happens, BT will face some incentive to minimise its migration costs. However, these incentives are only expected to arise in the longer term. An alternative way of providing an incentive for a supplier to minimise its costs is to set a cost recovery mechanism by which the supplier bears some part of the migration costs, whether or not it purchases the product for itself.
- 4.21 As all the approaches discussed above are likely to provide incentives to BT to minimise costs, this suggests there might be various ways of recovering the migration costs that provide some incentive for BT to minimise costs.

### **Reciprocity**

- 4.22 This principle suggests that where services are provided reciprocally, charges should also be reciprocal. Since the broadband access migration service is not provided reciprocally (in all migration profiles it is always BT that carries out the physical migration at the DSLAM), this principle is not applicable in the present case and therefore will not be discussed further in this document.

### **Practicability**

- 4.23 The principle of practicability suggests that both the set up costs and the individual migration costs should be recovered in a practicable way, which lends itself to relatively easy measurement and implementation. This principle of practicability may provide guidance on the extent to which the other principles should be followed in the design of the cost recovery mechanism.
- 4.24 For example, on the basis of distribution of benefits principle alone, there may be some merit in spreading the contribution to the migration costs to all the asymmetric broadband internet access end-users. However, it would be difficult in practice to share the costs of individual migration with other end-users that are not provided by means of BT's underlying network, such as the cable end-users. In this case, practicability considerations are expected to limit the group(s) of beneficiaries among which the costs are to be spread according to the distribution of benefits principle.

## Options

4.25 Ofcom is required under Section 7 of the Communications Act 2003 to carry out an impact assessment of any proposed regulation where the proposal would be likely to have a significant impact on persons carrying on businesses in the markets for any of the services, facilities, apparatus or directories in relation to which Ofcom carries out its functions. Ofcom's regulatory impact assessment of the proposed broadband access migration charge and the fit for purpose process is set out in the remainder of this Chapter, in the context set out earlier.

### **Option 1 – No regulatory intervention (i.e. BT to set the broadband access migration charge)**

4.26 Under Section 6 of the Act, Ofcom has a duty to ensure that it does not impose or maintain unnecessary regulatory burdens. Ofcom has considered the option of not intervening to set the migration charge at all. However, if Ofcom makes no regulatory intervention, and BT continues to set the level of the broadband access migration charge, it appears from the evidence currently available that only very low volumes of migrations will occur. Even including the period when BT has offered migration at a special offer price of £25, total volumes of migrations to date are approximately 1,000. In addition, representations from alternative operators indicate that they consider it is not economic to migrate end-users unless the broadband access migration charge is significantly reduced from the current level.

4.27 Indeed, with the broadband access migration charge set by BT, alternative operators are finding it difficult to compete against BT for the installed base of customers since they have to pay a per end-user migration charge in order to win these customers. This charge is not incurred by BT, at present. Furthermore operators cannot spread the costs incurred as a result of paying the migration charge over the lifetime of the end-users in a commercially viable manner, given the level of the charge and the average life expectancy of an end-user.

4.28 It may be argued that this option follows the cost recovery principle of cost causation as the migration charge per customer is paid by those causing the costs, namely the operator asking for the broadband access migration to take place.

4.29 The principle of practicability supports this option, as a charge per migration would be straightforward to implement.

4.30 The principle of distribution of benefits suggests that costs should be spread across all broadband internet access end-users, as the existence of migration is expected to stimulate competition in the intermediate service market and hence to benefit all end-users. A migration charge would not capture this distribution of benefits.

4.31 In addition, this option does not provide an incentive for BT to minimise its costs. As BT is not expected to require migration itself in the short term, it can always recover its costs from the other operators. Furthermore, as broadband access migration is required by BT's competitors to enable them to compete with BT for the existing base of ADSL end-users, it is noted that under this option BT has an incentive to inflate its costs.

4.32 In conclusion, the option of allowing BT to set the broadband access migration charge itself does not satisfy some of the principles of cost recovery, namely the principles of cost minimisation, effective competition and distribution of benefits. The historic evidence on the migration charge and low migration volumes to date

demonstrates the inadequacy of this option to meet Ofcom's aim of promoting effective competition in the intermediate services market.

- 4.33 Under Section 3 of the Act, and as set out in Section 4 of the Act, Ofcom's principal duty is to further the interests of consumers in relevant markets, where appropriate by promoting effective competition. By taking this option, Ofcom considers that it would not have adequately discharged its duty to promote effective competition.

#### **Option 2 – Set the charge at BT's actual costs**

- 4.34 If the economic principle of cost recovery based on cost causation is applied, the costs of migration should be recovered from those using the migration service. A natural starting point to derive the migration charge would then be to look at BT's costs and to set the charge at a level which allows BT to recover the costs it has incurred in providing the migration service. On the basis of the information received during the course of the investigation, this option would result in charge of £17.82, allowing BT to recover its costs over 5 years.
- 4.35 By setting the charge at a fixed level, for the period of the review, rather than allowing the charge to vary (as under Option 1), Ofcom would be encouraging BT to minimise its costs more than under Option 1. Indeed with the migration charge fixed at a given level and determining its revenues, BT has some incentive over that period to minimise its costs since this would increase its profits.
- 4.36 As a charge based on BT's actual costs is lower than the current charge, it is expected that it would encourage the use of broadband access migration, and therefore is likely to increase competition in the intermediate services market, which in turn will benefit retail end-users. However, Ofcom considers that setting the charge at this level would not promote effective competition. Indeed, it appears that, although there would be some increase in volumes of migration resulting from a reduction of the charge to £17.82, the charge would be too high to generate the volumes of migrations necessary to promote effective competition.
- 4.37 This can be inferred from examining what a business case plan would look like for a competing operator considering migrating existing customers as a strategy. If the average end-user life is assumed to be 3 years, from the competing operators' perspective, a £17.82 migration charge equates to about 50p pcm, with a zero return on capital. Although 50p pcm may seem small when compared with retail prices of £20 - £30 pcm, it needs to be compared with the margin available to the competing operator, which is currently in the order of £2.00 to £2.50, and must cover other costs such as interconnection charges, the IP layer and service costs. Therefore, Ofcom is of the view that even a £17.82 migration charge could be considered too high, and risks making migration unattractive because operators cannot recover the cost of the migration charge in a commercially viable manner over the lifetime of the end-users.
- 4.38 For the same reasons as with Option 1, the principle of distribution of benefits does not support Option 2, whereas the practicability principle does.
- 4.39 Furthermore, as discussed at Paragraph 3.32 above, Ofcom notes that the development of the broadband access migration process only benefits BT's competitors, as it is necessary to enable those competitors to compete for the business of ISPs currently provided via BT's IPStream. Therefore, until now, BT has had no incentive to develop an automated migration process; rather the reverse. Therefore, Ofcom considers that BT's actually incurred costs do not reflect the costs which would have been incurred by an efficient operator. By setting the charge based



on BT's actual costs, rather than efficiently incurred costs, BT benefits from the protection of its large share of the ADSL end-user customer base, which results from lower than optimum levels of migration due to a higher migration charge.

- 4.40 Therefore, for the reasons stated above, Ofcom does not consider that it would discharge its statutory duty under Section 3 of the Act to promote effective competition by setting the charge of £17.82 on the basis of BT's actually incurred costs.

### **Option 3 – Set the charge based on BT's efficiently incurred costs**

- 4.41 Given BT's strategic incentive to choose a relatively costly and inefficient migration procedure to deter competitors from attracting BT's existing customers, Ofcom considers it appropriate to consider efficiently incurred costs when setting the broadband access migration charge, rather than simply setting it on the basis of BT's actually incurred costs. As explained in Chapter 3 above, Ofcom has considered whether the costs presented by BT during the course of this investigation are efficiently incurred.
- 4.42 Chapter 3 above explains Ofcom's analysis of BT's costs and why Ofcom concludes that the costs of an efficient operator would be lower than BT's actually incurred costs: an efficient operator facing competition would have developed an automated migration procedure sooner, and would have offered a basic migration service before offering value added services.
- 4.43 Setting the migration charge on the basis of BT's efficiently incurred costs, results in a charge of £10.47. Ofcom considers that this charge will encourage the use of migration to a greater extent than a charge based on BT's actually incurred costs, and will therefore be more conducive to promoting effective competition than Option 2. Indeed, by lowering the migration charge further, the gap between attracting existing and new end-users is reduced and this makes it easier for providers to compete against BT for these existing end-users.
- 4.44 Using the same business case example referred to above, spreading a £10.47 migration charge over the life expectancy of an end-user means a cost increase of about 30p pcm with zero return on capital. Although initially 30p pcm may not seem significantly smaller than 50p pcm, Ofcom is of the view that a 40% reduction in this cost will make it easier for competing operators to migrate existing customers in a commercially viable manner. This seems to be supported by representations made by competing operators interested in relying on migration to accelerate the growth of their market share in the intermediate service market, that a migration charge in the range of £10 would make it commercially viable to use migration. Therefore, Ofcom considers that a £10.47 migration charge (as derived from efficiently incurred costs) is likely to significantly remove the existing barriers to migrating customers. This option would therefore satisfy the effective competition cost recovery principle.
- 4.45 As the charge is set at a given level, Option 3 is a cost recovery mechanism that offers cost minimisation incentives to BT for the period of the review. Since the level of the charge is lower than that proposed under Option 2, it is expected that there will be an incentive to minimise cost even further compared to Option 2.
- 4.46 Option 3 supports the other cost recovery principles in a similar way to Option 2, with some difference in intensity. The cost recovery principle of cost causation supports this option, as the migration costs are recovered from those directly causing the costs to arise. As with Option 2, Option 3 meets the principle of practicability as it is

straightforward to implement. However, it does not follow the principle of distribution of benefits because not all end-users that are expected to benefit from the increase in competition contribute to the cost recovery.

- 4.47 Ofcom considers that, for the reasons stated above, it would discharge its statutory duties under Section 3 of the Act to promote effective competition by setting the charge of £10.47 on the basis of BT's efficiently incurred costs.

**Option 4 – Set the charge below BT's efficiently incurred costs, permitting BT to recover any additionally incurred costs via DataStream rental charges**

- 4.48 Ofcom has considered the possibility that a charge based on BT's efficiently incurred costs would still be too high to be commercially viable, and thus would fail to generate the volumes of migrations required to ensure effective competition.
- 4.49 Therefore, Ofcom has also considered the option of setting the migration charge at a level which may be below the level necessary for BT to recover its efficiently incurred costs via the charge alone. If necessary, BT would be able to recover any shortfall by increasing the DataStream rental to cover any additional (efficiently incurred) costs. The primary reason for such an approach would be to ensure that the migration charge is set at a level which will stimulate the migration volumes required to promote effective competition.
- 4.50 The economic cost recovery principle of the distribution of benefits supports the argument that costs can be recovered from all the beneficiaries. In the present case, end-users of asymmetric broadband internet access services in general have been identified as benefiting from an economic and efficient migration system and the resulting increased competition. The principle of practicability further suggests that the set of beneficiaries from which it would be practicable to recover the migration costs are all the ADSL end-users. Hence the principle of distribution of benefits supports spreading the recovery of migration costs over these beneficiaries. A simple way of implementing this would be to increase the DataStream line rentals.
- 4.51 Under Option 4, BT faces little incentive to minimise costs since it knows that it can recover any additional costs (those not recovered by the revenues raised from the charge below BT's efficiently incurred costs) through an increase in the DataStream line rental, which is only regulated at retail minus. However, Option 4 is likely to reduce BT's strategic incentives to be deliberately inefficient - since any increase in costs would also be born by BT's end-users via increases in Datastream rental charges. It is therefore expected that Option 3 is likely to generate a stronger incentive to minimise costs than Option 4.
- 4.52 This approach departs from the strict principle of cost causation, as those persons causing the costs to be incurred by BT (migrating customers) only pay part of the costs. It may be possible to justify such a departure from the principle of cost causation, if the expected increase in future competition resulting from higher volumes of migration will generate greater dynamic efficiency (reduction of costs due to competitive pressures) than the inefficiency created by charging below costs.
- 4.53 In terms of practicability, this option leads to a two-part cost recovery mechanism: a migration charge and an increase in DataStream line rental, both of which would be relatively straightforward to implement.
- 4.54 Although Ofcom considers that, for the reasons stated above, that it would discharge its statutory duties under Section 3 of the Act to promote effective competition by

setting the charge below BT's efficiently incurred costs, Ofcom has considered whether it would be proportionate to set the migration charge on this basis i.e. is this option the least intrusive means to achieve Ofcom's aims? As explained above, Ofcom considers that a charge of £10.47, based on BT's efficiently incurred costs, would stimulate the volumes of migration necessary for effective competition. Therefore, although it seems reasonable to assume a charge set below BT's efficiently incurred costs would stimulate even higher volumes of migrations, in this instance Ofcom believes that it would not be proportionate to set the charge on this basis, as Option 3 is a less intrusive means of achieving Ofcom's aim of promoting effective competition. This option would only be justified if Ofcom considered that a charge based on BT's efficiently incurred costs was too high for the market to bear, and thus would not trigger the volumes of migrations necessary for the development of effective competition.

- 4.55 Taking this option to the extreme, the charge could be set to zero, with all the migration costs recovered by means of an increase in the DataStream rental charge. Ofcom considers that this would not be proportionate to its aim of promoting effective competition. In addition, by removing all links from the principle of cost causation, this version of option 4 has the potential of encouraging higher levels of migrations than are needed to achieve effective competition. Ofcom considers that this should be avoided, and this view is supported by submissions from operators.

## Proposal

- 4.56 Ofcom's application of the economic principles of cost recovery to the options discussed above can be summarised as follows:

Cost Recovery Principles	Option 1	Option 2	Option 3	Option 4
Cost Causation	H	H'	H	L/M
Effective Competition	L	L/M	H	H
Distribution of Benefits	L	L	L	M/H
Cost Minimisation	L	M	H	M
Practicability	H	H	H	H
Reciprocity	N/A	N/A	N/A	N/A

The Table above summarises Ofcom's application of the principles of cost recovery to each Option.

- 4.57 Under s3(3) of the Act, Ofcom has a duty to have regard, in all cases, to (a) the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases where action is needed; and (b) any other regulatory principles appearing to Ofcom to represent best regulatory practice.
- 4.58 As set out above, Ofcom has considered which option for setting the broadband access migration charge would be most appropriate, following the economic principles of cost recovery, and concludes that Option 3 (setting the charge on the

basis of BT's efficiently incurred costs) is most appropriate. Although Ofcom considers that Option 4 has some advantages, and would achieve its aim of promoting effective competition, Ofcom considers that Option 3 would be the least intrusive means of achieving that aim. Therefore, Ofcom proposes that the broadband access migration charge should be set on the basis of BT's efficiently incurred costs, at £10.47.

### Fit for purpose process

- 4.59 Ofcom considers that BT should provide a broadband access migration service using a process which is suitable for carrying out volumes of migrations much larger than the volumes seen to date. Ofcom agrees with BT's assessment that the development of an automated process appears to be most appropriate method to carry out the migrations, and Ofcom welcomes BT's proposed development of such an automated system, albeit later than Ofcom would have expected from an efficient operator.
- 4.60 Ofcom has considered below whether it is appropriate for it to consult on specifying the terms on which broadband access migration should be offered.

#### **Option 1: Allow BT to set the terms on which broadband access migration is offered**

- 4.61 As explained at paragraph 3.27 above, Ofcom considers that BT has a strategic incentive in making migration unattractive in order to protect its existing customer base. For this reason, BT has an incentive to choose an inefficient and lengthy process to deter competitors from using migration to access BT's existing customer base. Ofcom considers that BT could frustrate the intended impact of the proposed broadband access migration charge by not offering a migration process which is efficient and fit for purpose. Therefore, Ofcom considers that regulatory intervention is required to direct BT to provide broadband access migration on reasonable terms.

#### **Option 2: Direct BT to provide broadband access migration on reasonable terms**

- 4.62 Ofcom notes that BT has an obligation under its proposed SMP obligation EA1 to provide network access on fair and reasonable terms, conditions and charges, which implies in particular that the process is capable of dealing with reasonable volumes e.g. those considered in Ofcom's investigation of the costs. In particular, Ofcom considers that it would be unreasonable for BT's processing of a broadband access migration to take longer than the processing of a new 'provide' order for an end-user. Therefore, Ofcom proposes to require BT to provide broadband access migration within the same timescales, and with end-user downtime limited to no more than 30 minutes in a specified 24 hour period per migration, with an expectation that many migrations will require a much shorter period of end-user downtime.

**Question 4:** *Do stakeholders agree with Ofcom's proposals regarding the provision of a fit for purpose broadband access migration process? It would be helpful if responses are fully explained and supported by evidence.*

### Date from which these proposals will take effect

- 4.63 It is proposed that the charge and requirement to provide a fit for purpose broadband access migration process will take effect from the date of publication of the final Direction.

## Conclusion

4.64 Ofcom considers that the proposals contained in this draft Direction meet the tests set out in Section 49 of the Act. That is,

- Ofcom considers that the proposals are **objectively justifiable** in relation to wholesale broadband access and Ofcom's aim of promoting effective competition in the market for intermediate broadband services, as they would potentially allow other operators to compete with BT in offering intermediate services;
- Ofcom also considers that the proposals do not **unduly discriminate** against particular persons, as the charge will be applicable to all broadband access migrations regardless of the identity of the requesting operator or service provider. In addition, the proposals do not unduly discriminate against BT in that although they only apply to BT, they are intended to address BT's ability to set the migration charge above the competitive level in the light of its proposed SMP in the market to which the draft Direction applies, and BT's ability to frustrate the intended impact of the proposed broadband access migration charge by not offering a migration process which is efficient and fit for purpose;
- The draft Direction sets out clearly the requirements to be imposed on BT and therefore it meets the requirements of **transparency**. Ofcom also considers that the proposals are transparent in relation to what they are intended to achieve (effective competition in intermediate broadband services); and
- Ofcom's aim in setting the broadband access migration charge, and the fit for purpose requirements, is to promote effective competition in the provision of intermediate services. Ofcom considers it appropriate to consider efficiently incurred costs when setting the charge for providing broadband access migration services, rather than simply setting it on the basis of BT's actually incurred costs, given BT's strategic incentive to choose a relatively costly and inefficient migration procedure to deter competitors from attracting BT's base of existing broadband internet access end-users. It is necessary for other operators to be able to compete to supply those existing end-users in order to promote effective competition. Ofcom considers that the proposals are the least intrusive means of achieving its aim of promoting effective competition in intermediate broadband services, compared to the option of setting a charge below the level of BT's efficiently incurred costs and therefore the proposals are **proportionate** to what it intends to achieve.

4.65 For the reasons set out above, Ofcom considers that BT should provide broadband access migration on reasonable terms and conditions and at a charge of £10.47 per migration, based on BT's efficiently incurred costs. It is proposed that the terms and conditions and the charge will take effect from the date of publication of the Direction, and that it will be reviewed during the next relevant market review, or earlier, if there is evidence among other things of a material change in the efficient level of costs in the meantime.

4.66 Ofcom will consider whether an adjustment to reflect the broadband access migration charge should be made to the regulated margin between IPStream and DataStream/ATM Interconnection, as part of Ofcom's consideration of that margin. Ofcom proposes to publish a draft direction on that issue around the end of May 2004.

## Section 5

# Responding to this consultation

## How to respond

Ofcom invites written views and comments on the issues raised in this document, to be made by **5pm on Tuesday 1 June 2004**.

Ofcom strongly prefers to receive responses as e-mail attachments, in Microsoft Word format, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 2) to indicate whether or not there are confidentiality issues. The cover sheet can be downloaded from the 'Consultations' section of our website.

Please can you send your response to [ruth.gibson@ofcom.org.uk](mailto:ruth.gibson@ofcom.org.uk).

Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.

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Note that we do not need a hard copy in addition to an electronic version. Also note that Ofcom will not routinely acknowledge receipt of responses.

It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 3. It would also help if you can explain why you hold your views, and how Ofcom's proposals would impact on you.

## Further information

If you have any questions about the issues raised in this consultation, or need advice on the appropriate form of response, please contact Ruth Gibson on 020 7783 4340.

## Confidentiality

Ofcom thinks 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](http://www.ofcom.org.uk), as soon as possible after the consultation period has ended.

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.

Please also note that copyright in responses will be assumed to be vested in Ofcom unless specifically retained.

### **Next steps**

Following the end of the consultation period, Ofcom intends to determine the dispute and finalise the draft Direction

Please note that you can register to get automatic notifications of when Ofcom documents are published, at [http://www.ofcom.org.uk/static/subscribe/select\\_list.htm](http://www.ofcom.org.uk/static/subscribe/select_list.htm).

### **Ofcom's consultation processes**

Ofcom is keen to make responding to consultations easy, and has published some consultation principles (see Annex 1) which it seeks to follow, including on the length of consultations.

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](mailto: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, whose views are less likely to be obtained in a formal consultation.

If you would like to discuss these issues, or Ofcom's consultation processes more generally, you can alternatively contact Philip Rutnam, Partner, Competition and Strategic Resources, who is Ofcom's consultation champion:

Philip Rutnam  
Ofcom  
Riverside House  
2A Southwark Bridge Road  
London SE1 9HA  
Tel: 020 7981 3585  
Fax: 020 7981 3333

E-mail: [philip.rutnam@ofcom.org.uk](mailto:philip.rutnam@ofcom.org.uk)

## Annex 1

# Ofcom's consultation principles

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

### Before the consultation

1. 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

2. We will be clear about who we are consulting, why, on what questions and for how long.
3. 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.
4. We will normally allow ten weeks for responses to consultations on issues of general interest.
5. 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 organisations 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.
6. 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

7. 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 2

# Consultation response cover sheet

1. In the interests of transparency, we will publish all consultation responses in full on our website, [www.ofcom.org.uk](http://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.
2. We have produced a cover sheet for responses (see below) and would be very grateful if you could send one with your response. 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 cover sheets confidential.
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 cover sheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
4. We strongly prefer to receive responses in the form of a Microsoft Word attachment to an email. Our website therefore includes an electronic copy of this cover sheet, which you can download from the 'Consultations' section of our website.
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 cover sheet only so that we don't have to edit your response.

## Cover sheet for response to an Ofcom consultation

### BASIC DETAILS

Consultation title: Consultation on a Draft Direction concerning ADSL Broadband Access Migration Services; and

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?	

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

### DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response. 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 3

# Consultation questions

Ofcom invites written views and comments on the issues raised in this document, and in particular:

**Question 1:** *What volumes of Broadband Access Migration do stakeholders expect over the next 5 years? It would be helpful for responses to be set out in the table format included above at Paragraph 3.18, and for responses to include an explanation of the assumptions made, for example, the levels of churn and the size of the market.*

**Question 2:** *Would stakeholders expect there to be economies of scale resulting from multiple migrations being processed together as a batch? If so, please provide details of the types of economies of scale which would be expected and explain why they would be expected to arise, and an indication of the magnitude of such economies of scale. Please distinguish between software and hardware migrations whenever necessary.*

**Question 3:** *What volumes of IPStream to IPStream migration do stakeholders expect over the next 5 years? It would be helpful if responses are set out in the table format given in Paragraph 3.43 above, and include an explanation of the assumptions made, for example, on the levels of churn and the size of the market.*

**Question 4:** *Do stakeholders agree with Ofcom's proposals regarding the provision of a fit for purpose broadband access migration process? It would be helpful if responses are fully explained and supported by evidence.*

## **Annex 4**

### **Notification of a proposal under section 49 of the Communications Act 2003**

**Proposal for making a Direction under proposed Conditions EA1.1 and EA1.2 in Schedule 1 to the Notification at Annex E of the wholesale broadband access market review published on 16 December 2003 to be imposed on British Telecommunications plc (“BT”) as a result of the market power determination proposed to be made by Director General of Telecommunications that BT has significant market power in the asymmetric broadband origination market in the United Kingdom excluding the Hull Area, and the broadband conveyance market in the United Kingdom;**

1. Ofcom hereby makes, in accordance with section 49 of the Communications Act 2003 ('the Act'), the following proposal for a Direction to be given under proposed Conditions EA1.1 and EA1.2, to the Notification at Annex E of the wholesale broadband access market review published on 16 December 2003 to the accompanying explanatory statement.
2. The draft Direction is set out in the Schedule to this notification.
3. The effect of the draft Direction, and the reasons for making the proposal, are set out in the accompanying explanatory statement.
4. Representation may be made to Ofcom about the proposed draft Direction by 5pm on 1 June 2004.
5. In accordance with section 50 of the Act, copies of this notification have been sent to the Secretary of State, the European Commission and to the regulatory authorities of every other Member State.

**Jim Niblett**  
**Competition Policy Director**

[29 April 2004]

## Schedule

**[Draft] Direction under [proposed] Conditions EA1.1 and EA1.2 [to be] imposed on British Telecommunications plc (“BT”) as a result of the market power determinations [proposed to be] made by Ofcom that BT has significant market power in the (i) asymmetric broadband origination market in the United Kingdom excluding the Hull Area, and the (ii) broadband conveyance market in the United Kingdom**

### WHEREAS:

- A. as a result of a market analysis carried out by the Director, he proposed on 28 April 2003 and on 16 December 2003 in accordance with section 80 of the Act that British Telecommunications plc ('BT') has significant market power in (i) asymmetric broadband origination market in the United Kingdom excluding the Hull Area, and (ii) broadband conveyance market in the United Kingdom;
- B. by virtue of the Transitional Provisions the Director was able to exercise the powers under the Act for an interim period. Ofcom has now assumed those powers as of 29 December 2003;
- C. Ofcom, having considered every representation duly made, and thereafter on [date of final broadband market review notification] pursuant to sections 48(1) and 79 of the Act by way of publication of a Notification identified the relevant services markets, made market power determinations to the effect referred to in recital (A) above and set certain significant market power ('SMP') conditions on BT to take effect [date coming into effect], such as Condition EA1;
- D. this Direction concerns matters to which Condition EA1 relates;
- E. for the reasons set out in Chapters 2,3 and 4 of the explanatory statement accompanying this Direction, Ofcom is satisfied that, in accordance with section 49(2) of the Act, this Direction is:
  - i. objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
  - ii. not such as to discriminate unduly against particular persons or against a particular description of persons;
  - iii. proportionate to what it is intended to achieve; and
  - iv. in relation to what it is intended to achieve, transparent.
- F. for the reasons set out in Chapters 2,3 and 4 of the explanatory statement accompanying this Direction, Ofcom is satisfied that it has acted in accordance with the relevant duties set out in sections 3 and 4 of the Act;
- G. on 29 April 2004, Ofcom published a notification of the proposed Direction in accordance with section 49 of the Act;
- H. Ofcom has considered every representation about the proposed Direction duly made to it; and

**Therefore, pursuant to section 49 of the Act and Conditions EA1.1 and EA1.2 in Schedule 1 to the Notification, Ofcom gives the following Direction:**

1. The Dominant Provider must provide Broadband Access Migration Services on fair and reasonable terms, conditions and charges as soon as it is reasonably practicable to every Third Party who reasonably requests it in writing.
2. Without prejudice to paragraphs 3 and 4 below and where a request is covered by paragraph 1 above, the Dominant Provider shall:
  - a. provide Broadband Access Migration Services, at a charge of £10.47 per migration;
  - b. ensure that the period for the provision of the Broadband Access Migration Service is not longer than the period for which it provides a Third Party with the means to provide ADSL Internet access to an End-User; and
  - c. ensure that End-User Downtime is limited to no more than 30 minutes in a specified 24 hour period per migration.
3. For the purpose of interpreting this Direction, the following definitions shall apply:
  - a. **“Act”** means the Communications Act 2003;
  - b. **“ADSL”** means Asymmetric Digital Subscriber Line;
  - c. **“ATM Interconnection”** means Interconnection at the Asynchronous Transfer Mode ('ATM') switch;
  - d. **“Asymmetric Broadband Origination”** means in respect of the Dominant Provider's Electronic Communications Network the conveyance of ADSL Internet traffic from the End-User's premises to the first suitable point of Interconnection within the core network i.e. the parent node.
  - e. **“Broadband Access Migration Service”** means a service which allows the transfer by the Dominant Provider of Asymmetric Broadband Origination provided by the Dominant Provider between Communications Providers;
  - f. **“Communications Provider”** means a Third Party purchasing from the Dominant Provider DataStream or ATM Interconnection;
  - g. **“DataStream”** means BT's product which provides a dedicated ATM based broadband network service and is made up of the following four components:
    - a. the Customer Access Link (the link from the network termination equipment in an End-User's premises to a BT DataStream point of presence or, alternatively, an ATM Access Port on a BT ATM Switch, at a BT DataStream Point of Presence);
    - b. Virtual Paths ("VP") (an established path from the End-User's premises to the BT DataStream exchanges where the End-User is served from);
    - c. End-User Port Reservation (which allows the specification of End-User Ports the Third Party wishes to reserve on the DSLAM at the BT DataStream enabled exchange); and

- d. End-User Access ("EUA") (which provides the physical connection between the local BT exchange and each End-User that the Third Party wishes to provide a service to);
  - h. "**Director**" means the Director General of Telecommunications;
  - i. "**Dominant Provider**" means British Telecommunications plc, whose registered company number is 1800000, and any British Telecommunications plc subsidiary or holding company, or any subsidiary of that holding company, all as defined by Section 736 of the Companies Act 1985 as amended by the Companies Act 1989;
  - j. "**Downtime**" means where the End-User does not have ADSL Internet access;
  - k. "**DSLAM**" means Digital Subscriber Line Access Multiplexer;
  - l. "**Notification**" means the Notification referred to in recital (C) of this Direction above;
  - m. "**Ofcom**" means the Office of Communications as established under section 1 of the Communications Act 2003;
  - n. "**Third Party**" means either:
    - a. a person providing a Public Electronic Communications Network; or
    - b. a person providing a Public Electronic Communications Service.
  - o. "**Transitional Provisions**" means sections 408 and 411 of the Act, Article 3(1) of the Communications Act 2003 (Commencement No. 1) Order 2003 and Article 3(2) of the Office of Communications 2002 (Commencement No. 3) and Communications Act 2003 (Commencement No. 2) Order 2003;
4. Except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them in paragraphs 1, 2 and 3 above and otherwise any word or expression shall have the same meaning as it has in the Notification or, if the context so permits, in Schedule 1 thereto, as appropriate, and otherwise any word or expression shall have the same meaning as it has in the Act.
5. For the purpose of interpreting this Direction:
- a. headings and titles shall be disregarded; and
  - b. the Interpretation Act 1978 (c. 30) shall apply as if this Direction were an Act of Parliament.
6. This Direction shall take effect on the day it is published.

**Jim Niblett**  
**Competition Policy Director**

[XX XX 2004]

## Annex 5

# Draft Determination of Dispute

## DRAFT DETERMINATION

### **[DRAFT] DETERMINATION UNDER SECTIONS 188 AND 190 OF THE COMMUNICATIONS ACT 2003 FOR RESOLVING A DISPUTE BETWEEN TISCALI UK LTD (“TISCALI”) AND THUS PLC (“THUS”) AND BRITISH TELECOMMUNICATIONS PLC (“BT”) CONCERNING ADSL BROADBAND ACCESS MIGRATION SERVICES**

#### **WHEREAS:**

- A. Section 188(2) of the Communications Act 2003 (the “Act”) provides that where there is a dispute between different communications providers relating to the provision of network access, and Ofcom has decided pursuant to section 186(2) of the Act that it is appropriate for it to handle the dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the parties in accordance with section 188(7) of the Act, together with a full statement of the reasons on which the determination is based. Section 190 of the Act sets out the scope of Ofcom’s powers for resolving a dispute which may include, in accordance with section 190(2) of the Act, a direction imposing an obligation on the parties to give a direction fixing the terms or conditions of transactions between the parties to the dispute;
- B. By virtue of section 408 of the Act and Article 3(1) of the Communications Act 2003 (Commencement No. 1) Order 2003, the Director General of Telecommunications (the “Director”) was entitled to exercise Ofcom’s dispute resolution powers under sections 185 to 191 of the Act until Ofcom assumed those powers, which it did on 29 December 2003;
- C. On 4 June 2003, Tiscali and Thus wrote to the Director asking him to resolve a dispute between them and BT relating to the cost of migrating from IPStream to DataStream;
- D. On 15 August 2003, the Director decided pursuant to section 186(2) of the Act that it was appropriate for him to handle the dispute and he informed the parties of this decision;
- E. On 4 December 2003, Oftel notified the parties that the dispute would not be resolved within 4 months from the date Oftel accepted the dispute, as the market definitions and access obligations which relate to this issue were being considered as part of the wholesale broadband access market review. Therefore, Ofcom has determined this dispute following the conclusion of the wholesale broadband access market review, as published on [...].
- F. In order to resolve this dispute, the Ofcom has considered, among other things, the information provided by the parties and the relevant duties set out in sections 3 and 4 of the Act;
- G. An explanation of the background to the dispute and Ofcom’s reasons for making this Determination are set out in the explanatory statement accompanying this Determination;



- H. Ofcom issued a draft of this Determination and the explanatory statement on 29 April 2004 and responses were invited by 1 June 2004.

**NOW, THEREFORE, PURSUANT TO SECTIONS 188 AND 190 OF THE ACT, OFCOM MAKES THE FOLLOWING DETERMINATION:**

1. BT shall provide Tiscali and Thus with Broadband Access Migration Services on the terms and conditions and at the charge set out in the [proposed] Direction relating to Broadband Access Migration Services, published on [29 April 2004].
2. Words or expressions used in this Determination shall have the same meaning as in the Act, except as otherwise stated in this Determination and as follows:
  - a. **“Act”** means the Communications Act 2003;
  - b. **“ADSL”** means Asymmetric Digital Subscriber Line;
  - c. **“ATM Interconnection”** means Interconnection at the Asynchronous Transfer Mode ('ATM') switch;
  - d. **“Asymmetric Broadband Origination”** means in respect of the Dominant Provider's Electronic Communications Network the conveyance of ADSL Internet traffic from the End-User's premises to the first suitable point of Interconnection within the core network i.e. the parent node.
  - e. **“Broadband Access Migration Service”** means a service which allows the transfer by the Dominant Provider of Asymmetric Broadband Origination provided by the Dominant Provider between Communications Providers;
  - f. **“Communications Provider”** means a Third Party purchasing from the Dominant Provider DataStream or ATM Interconnection;
  - g. **“DataStream”** means BT's product which provides a dedicated ATM based broadband network service and is made up of the following four components:
    - a. the Customer Access Link (the link from the network termination equipment in an End-User's premises to a BT DataStream point of presence or, alternatively, an ATM Access Port on a BT ATM Switch, at a BT DataStream Point of Presence);
    - b. Virtual Paths ("VP") (an established path from the End-User's premises to the BT DataStream exchanges where the End-User is served from);
    - c. End-User Port Reservation (which allows the specification of End-User Ports the Third Party wishes to reserve on the DSLAM at the BT DataStream enabled exchange); and
    - d. End-User Access ("EUA") (which provides the physical connection between the local BT exchange and each End-User that the Third Party wishes to provide a service to);
  - h. **“Director”** means the Director General of Telecommunications;

- i. **"Dominant Provider"** means British Telecommunications plc, whose registered company number is 1800000, and any British Telecommunications plc subsidiary or holding company, or any subsidiary of that holding company, all as defined by Section 736 of the Companies Act 1985 as amended by the Companies Act 1989;
  - j. **"Downtime"** means when the End-User does not have ADSL Internet access;
  - k. **"DSLAM"** means Digital Subscriber Line Access Multiplexer;
  - l. **"Notification"** means the Notification referred to in recital (C) of this Direction above;
  - m. **"Ofcom"** means the Office of Communications as established under section 1 of the Communications Act 2003;
  - n. **"Third Party"** means either:
    - a. a person providing a Public Electronic Communications Network; or
    - b. a person providing a Public Electronic Communications Service.
  - o. **"Transitional Provisions"** means sections 408 and 411 of the Act, Article 3(1) of the Communications Act 2003 (Commencement No. 1) Order 2003 and Article 3(2) of the Office of Communications 2002 (Commencement No. 3) and Communications Act 2003 (Commencement No. 2) Order 2003;
3. For the purpose of interpreting this Determination:
- a. headings and titles shall be disregarded; and
  - b. the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.
4. This Determination shall take effect on the day it is published.
5. This Determination is binding on BT, Tiscali and Thus in accordance with section 190(8) of the Act.

**JIM NIBLETT**  
**COMPETITION POLICY DIRECTOR**

[Date ...]

# Explanatory Memorandum

## Introduction

1. Section 188(2) of the Communications Act 2003 (the "Act") provides that where there is a dispute between different communications providers relating to the provision of network access, and Ofcom has decided pursuant to section 186(2) of the Act that it is appropriate for it to handle the dispute, Ofcom must consider the dispute and make a determination for resolving it.

## Background

2. Tiscali UK Limited ("Tiscali") and Thus plc ("Thus") submitted a dispute to Oftel on 4 June 2003 concerning the provision of broadband access migration services, in particular, migration between IPStream and Datastream / ATM Interconnection. Tiscali and Thus had requested such a migration service from BT, but despite several months of commercial negotiations, had been unable to reach agreement with BT over the price of such a migration service.
3. On 15 August 2003, the Director General of Telecommunications (the "Director") decided pursuant to section 186(2) of the Act that it was appropriate for him to handle the dispute and he informed the parties of that decision. The scope of the dispute with regard to migration was agreed to be:
  - a. whether BT should be required to provide an automated fit for purpose migration process for migrations between IPStream and DataStream/ ATM Interconnection;
  - b. if BT was required to provide an automated migration process, to determine a reasonable price for both single and bulk migrations; and
  - c. the length of the minimum contract term for DataStream / ATM Interconnection (3 month), compared to the minimum term for IPStream (1 month). However, in November 2003, BT notified the Director that it was reducing the minimum contract term for DataStream/ ATM Interconnection to 1 month, and therefore the parties agreed that this aspect of the dispute had been resolved.
4. On 4 December 2003, the Director notified the parties that the dispute would not be resolved within 4 months from the date the Director accepted the dispute, as the market definitions and access obligations which relate to this issue were being considered as part of the Wholesale Broadband Access ("WBA") market review, and it was considered to be appropriate to resolve the dispute only after the conclusion of that market review.
5. Ofcom therefore proposes to resolve the dispute as set out below.
6. As mentioned in paragraph 5 above, the market definitions and access obligations which relate to this issue are being considered as part of the WBA market review. The Director proposed in the WBA market review second consultation document (<http://www.ofcom.org.uk/consultations/past/wbamp/wbam/?a=87101>), published on 16 December 2003, that BT has Significant Market Power ("SMP") in the following markets:
  - i. asymmetric broadband origination market in the UK (excluding the Hull area); and

- ii. broadband conveyance market in the UK.
7. Given the position of SMP held by BT, i.e. its ability to behave to an appreciable extent independently of competitors, customers and ultimately consumers, the Director proposed to impose a number of SMP service conditions, including the requirement to provide Network Access on reasonable request.
8. The view and proposals set out in this document assume Ofcom confirms its position in the WBA market review.

### **Proposals to resolve the dispute**

9. Ofcom has set out its proposals for Broadband Access Migration in a draft Direction and accompanying explanatory statement published today (29 April 2004). It is proposed that BT is required to provide Broadband Access Migration at a charge of £10.47. This charge is based on BT's efficiently incurred costs.
10. Broadband Access Migration Service is defined as "a service which allows the transfer by the Dominant Provider of Asymmetric Broadband Origination provided by the Dominant Provider between Communications Providers", and includes migration between any of the ADSL intermediate services of BT (IPStream) and other operators. This means that Broadband Access Migration would include migrations from IPStream to ATM Interconnection based services; migrations between different ATM Interconnection based services; and migrations from ATM Interconnection based services to IPStream.
11. Ofcom considers that BT should provide a Broadband Access Migration service using a process which is suitable for carrying out volumes of migrations much larger than the volumes seen to date. Ofcom agrees with the parties' assessment that the development of an automated process appears to be the most appropriate method to carry out the migrations, and Ofcom welcomes BT's proposed development of such an automated system, albeit later than Ofcom would have expected from an efficient operator. As BT is developing such an automated system to provide Broadband Access Migration, Ofcom provisionally considers that this appears to be sufficient to resolve that aspect of the dispute. However, Ofcom considers that regulatory intervention is required to direct BT to provide Broadband Access Migration Services on reasonable terms and conditions. Therefore, Ofcom proposes to direct BT to provide broadband access migration services within the same timescales as the processing of a new 'provide' order, and with end-user downtime limited to no more than 30 minutes in a specified 24 hour period per migration.
12. As set out in the explanatory statement accompanying the draft Direction on Broadband Access Migration, BT has explained that 'bulk' orders of multiple migrations are currently handled using a 'value-added' project management. Ofcom provisionally considers that an efficient operator would firstly provide a basic migration service, without added value. Ofcom has suggested that there would be nothing to prevent BT offering a 'value-added' migration service in addition to the Broadband Access Migration service, if there is sufficient demand for such a product. However, operators should have the choice as to whether they wish BT to provide the additional functionality. Therefore, it is proposed in the draft Direction to set a single Broadband Access Migration charge, rather than separate charges for 'bulk' and 'single' migration orders, and it is proposed to resolve this dispute by requiring BT to provide Tiscali and Thus with a Broadband Access Migration service on the terms and conditions and at the charge set out in the draft Direction relating to Broadband Access Migration Services.

13. As set out in the explanatory statement accompanying the proposed draft Direction on Broadband Access Migration, Ofcom considers that the proposals contained in this draft Determination meet its duties and obligations under the Act. In particular, the proposals are objectively justifiable, do not unduly discriminate, and they are transparent and proportionate to what Ofcom intends to achieve.

## Annex 6

# Glossary

**ADSL (Asymmetric Digital Subscriber Line):** a digital technology that allows the use of a copper line to send a large quantity of data in one direction and a lesser quantity in the other.

**ADSL Broadband Access Migration:** a service which allows the transfer by the Dominant Provider of Asymmetric Broadband Origination provided by the Dominant Provider between Communications Providers. It includes migration between any of the ADSL intermediate services of BT (IPStream) and other operators. This means that Broadband Access Migration would include migrations from IPStream to ATM Interconnection based services; migrations between different ATM Interconnection based services; and migrations from ATM Interconnection based services to IPStream.

**DataStream:** wholesale interconnection product, based on ATM Interconnection, offered by BT to operators allowing them to utilise more of their own networks and compete with it in the provision of intermediate services such as IPStream.

**Digital Subscriber Line Access Multiplexer (DSLAM)** – it is located in the co-location space of an operator at an exchange site. It is composed of a multiplex and the ADSL modems necessary to operate ADSL services over the loops served by the operator from the exchange.

**Internet Service Provider (ISP):** for the purposes of this document, the term ‘ISP’ refers to Internet Service Providers who purchase intermediate services and sell retail services to end-users.

**IPStream:** an intermediate broadband service sold by BT Wholesale to ISPs and its own retail arms BT Broadband and BT Retail to sell on to consumers, which is essentially a resale service. Parameters such as speed and quality of service are under BT’s control.

**Operator:** for the purposes of this document, the term ‘operator’ refers to providers of intermediate services who purchase (explicitly, or implicitly in the case of self provision) wholesale broadband access, specifically DataStream / ATM Interconnection.

**Port re-use:** software operation within the DSLAM by which the ADSL connection of a migrating end-user is switched from the VP of the losing supplier of intermediate services to the VP of the gaining supplier of intermediate services.

**Re-jumping:** manual operation by which the ADSL connection between the end-user and the DSLAM at the local serving exchange is physically moved between DSLAMs.

**VP (Virtual Path):** is a path that is assigned to an operator, which goes across the ATM network, between the DSLAM and the point of hand-over.

**WBA (Wholesale Broadband Access):** a wholesale service providing access from the end-user to the point of connection with a supplier of intermediate services’ network for the purpose of providing asymmetric broadband services.