



Notice under Section 155(1) of the Enterprise Act 2002

**Consultation on undertakings offered by British Telecommunications
plc in lieu of a reference under Part 4 of the Enterprise Act 2002**

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Section 1

Executive Summary

- 1.1 The Office of Communications (Ofcom) has decided to consult on whether it should accept undertakings which have been offered by British Telecommunications plc ('BT') in lieu of a reference to the Competition Commission under Part 4 of the Enterprise Act 2002.
- 1.2 BT's offer of these undertakings in lieu of a reference, and Ofcom's decision to consult on accepting them, follow Ofcom's consideration of the current state of fixed telecoms in the UK in its Strategic Review of Telecommunications ('the Telecoms Review').¹
- 1.3 A core conclusion of the Telecoms Review has been that effective competition remains the best means to deliver benefits to businesses and consumers in relation to telecoms. In particular, businesses and consumers value and are increasingly benefiting from the plethora of innovative new services being brought to market. Our analysis showed that competition based upon deployment of alternative infrastructure is the best mechanism to deliver not only wider choice, better quality and lower prices, but also faster innovation and availability of new services. There are important caveats to this approach, such as the need for informed consumers able to make effective choices, and the need to ensure delivery of services to vulnerable groups and isolated communities. However, the clear conclusion remains that the best way to further the aggregate interests of businesses and consumers in the UK is to promote effective competition in telecommunications.²
- 1.4 Ofcom suspects that competition is being restricted in markets for the supply of wholesale access and backhaul network services in the context of electronic communications in the United Kingdom ('the wholesale markets identified') and on directly related downstream retail markets ('the retail markets identified'). In the wholesale markets identified, BT has and will continue to have a substantial degree of market power. BT is also a vertically integrated provider with a presence in the directly related downstream markets. Ofcom believes that the combination of these features (upstream market power and vertical integration) provides BT with both the ability and the incentive to discriminate against its downstream competitors, who are also

¹ Ofcom has so far published two consultation documents as part of its Strategic Review of Telecommunications. The phase 1 consultation, published on 28 April 2004, considered the current position and prospects for the telecoms sector (available at www.ofcom.org.uk/static/telecoms_review/condoc_phase1.htm). The phase 2 consultation, published on 18 November 2004, (available at www.ofcom.org.uk/static/telecoms_review/condoc_phase2.htm), identified and assessed options for Ofcom's strategic approach to telecoms markets, and specifically discussed the possibility of utilising Ofcom's powers under Part 4 of the Enterprise Act 2002.

² In general, when exercising its functions, Ofcom is required under the Communications Act 2003 to further the interests of consumers in relevant markets, where appropriate by promoting competition. While those duties do not apply when Ofcom carries out its functions under Part 4 of the Enterprise Act 2002, it may have regard to such matters if they are matters to which the OFT is entitled to have regard.

its wholesale customers. Moreover, Ofcom suspects that BT may have engaged in conduct which has had the effect of restricting competition.

- 1.5 Section 370 of the Communications Act 2003 gives Ofcom concurrent functions with the OFT under Part 4 of the Enterprise Act 2002.
- 1.6 Under section 131 of the Enterprise Act 2002, Ofcom may make a market investigation reference to the Competition Commission where it has reasonable grounds for suspecting that any feature, or combination of features, of a market in the UK for goods or services prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the UK or a part of the UK.
- 1.7 Under section 154 of that Act, instead of making such a reference, but where it has the power to make one and otherwise intends to do so, Ofcom may accept undertakings from such persons as it considers appropriate, to take such action as it considers appropriate. These undertakings must be for the purpose of remedying, mitigating or preventing any adverse effect on competition concerned, or any detrimental effect on customers so far as it has resulted from, or may be expected to result from, the adverse effect on competition.
- 1.8 Ofcom believes that the test for a reference set out in section 131 of the Enterprise Act 2002 is satisfied and intends, if it does not accept undertakings, to make such a reference. The terms of the reference which Ofcom would make are set out in Annex A.
- 1.9 However, Ofcom considers that the package of undertakings offered by BT is appropriate to address the difficulties which it has identified, and offers as comprehensive a solution as is reasonable and practicable.
- 1.10 In the light of sections 155 and 169 of the Enterprise Act 2002, Ofcom hereby gives notice of the undertakings which it proposes to accept from BT, subject to comments and representations received as to the effectiveness of the undertakings. In this notice, Ofcom sets out the reasons for which it proposes to accept those undertakings. Ofcom invites written views and comments on the issues raised in this document to be made by 12 August 2005. Further details of how to respond are set out in Annex B.

Section 2

Summary of the undertakings offered by BT

2.1 Following Ofcom's consideration of the current state of fixed telecoms in the UK in its Strategic Review of Telecommunications, BT has offered undertakings in lieu of a reference under Part 4 of the Enterprise Act 2002. The full text of the undertakings offered by BT is set out in Annex E. The main elements of those undertakings are summarised in five parts below, and we set out in section 5 why we believe they are apt to address the competition problems we have identified.

Equivalence of Inputs

2.2 First, BT undertakes to supply a range of products in the wholesale markets identified to all communications providers (including its own downstream operations) on the same timescales, terms and conditions (including price) and by the same systems and processes. BT will provide to all providers the same information about these products and their associated services, systems and processes. This set of rules has been termed equivalence of inputs between BT's downstream divisions and its downstream competitors.

2.3 Such equivalence of inputs is to be applied to the wholesale products listed below on a specified timetable, set out in the undertakings.

Local access products

- wholesale line rental;
- local loop unbundling³; and
- wholesale extension service.

Other products

- IPStream;
- backhaul extension services; and
- various other products when they are provided in future.

2.4 BT also offers a public, but not legal, commitment to deliver equivalence of input for certain wholesale line rental products at specified earlier dates than those set out in the undertakings.

³ Both shared metallic path facility, and metallic path facility

Access Services Division

2.5 Second, BT offers to establish a separate division of the BT group, referred to as the 'Access Services Division' or ASD. The ASD would control and operate the physical network assets making up BT's local access network and backhaul network. It would include all staff and management tiers necessary for managing these assets. It would supply on behalf of the BT group the following products and services in the wholesale markets identified:

Local access products

- wholesale line rental;
- local loop unbundling⁴;
- wholesale extension service; and
- partial private circuits (excluding trunk segments).

Other products

- backhaul extension service; and
- various other products when they are provided in future.

2.6 For the products supplied by ASD to which equivalence of input is to be applied, the ASD would trade with other parts of the BT group on published terms and conditions which would also be offered to other communications providers.

2.7 BT offers further undertakings designed to ensure the independence of the ASD within the BT group, including the following commitments:

- the chief executive officer (CEO) of the ASD would report to the CEO of the BT group; he or she would not be a member of the operating committee of the BT group;
- the ASD would have the freedom to operate within an operating plan and capital expenditure plan agreed annually with the BT group;
- the ASD would provide separate financial and regulatory accounts;
- the management team of the ASD would be based in physically separate locations from the rest of the BT group;
- future remuneration of the ASD's personnel would be aligned towards the performance of the ASD, not the BT group;

⁴ Both shared metallic path facility and associated services, and metallic path facility and associated services

- only named individuals outside of the ASD may be insiders to its decisions, and only specified group functions may supply it with services;
- the ASD would be obliged to act in a non-discriminatory fashion;
- the ASD's systems would be first logically separated, and later the operational support systems would be physically separated, on specified timescales; and
- the ASD would use a separate brand to the remainder of the BT group.

Other organisational provisions

2.8 Third, BT offers a range of undertakings to guard against inappropriate information flows and influence passing between different parts of its organisation, and to monitor its compliance with these undertakings. These include:

- provisions for an organisational separation between BT's upstream operations (such as BT Wholesale) and its downstream operations (such as BT Retail), including a Chinese wall between the two; and
- more specific protections to ensure that the SMP product management team in BT Wholesale acts in an independent and non-discriminatory fashion.

Next generation networks

2.9 Fourth, BT offers undertakings concerning the deployment of its next generation network technology, called its '21st Century Network' (21CN). BT offers to undertake:

- to ensure that other communications providers will be able to purchase unbundled network access products;
- to design 21CN as efficiently as it reasonably could have been expected to, and to accept that it cannot recover the costs in relation to SMP products, if redesign is required, from other communications providers;
- to design 21CN so that it is capable of delivering equivalence of inputs in relation to SMP products;
- not to launch new retail products based on its 21CN before a suitable upstream wholesale SMP product is available for its downstream competitors;
- to adopt certain principles in relation to compensating other communications providers for the cost of reconfiguring their networks to interconnect with BT's new network;

- to ensure that other communications providers are not disadvantaged by the capability of its new network to provide software-controlled migration of customers to new services; and
- to participate in a multi-lateral industry forum responsible for managing the transition to next generation networks.

Equality of Access Board (EAB)

2.10 Fifth, BT is proposing to establish a new internal compliance board, to monitor its compliance with these undertakings, and to make recommendations to the management of BT on remedial action:

- the EAB would have a majority of independent members, and would be chaired by a non-executive member of BT's main board;
- it would be able to monitor information regarding compliance with the undertakings and to investigate matters of concern; and
- minutes of its proceedings and regular reports would be sent to Ofcom.

Section 3

Possible market definition

- 3.1 Ofcom notes that the OFT has stated in its Guidance on Market Investigation References that when consulting on a reference a view should normally be expressed as to the possible definition of the market (or markets) affected. Ofcom considers it equally appropriate to express such a view when consulting on undertakings in lieu.
- 3.2 Ofcom believes that there are features of the market that prevent, restrict or distort competition in what are termed access and backhaul network services, and that these features are likely to persist. The access network is broadly defined as the part of a telephone network connecting the customer with the local exchange. The backhaul network is broadly defined as the part of a telephone network that connects local exchanges back to the core network or to another communications provider's network. These terms are explained in more detail, and more discussion is provided of the principal markets identified by Ofcom, in Annex D.
- 3.3 There is a chain of supply in many telecoms markets. For example, when a telephone call is made from one fixed telephone to another, one supplier has the customer making the call; this supplier is acting in a retail market for fixed telephone calls, and charges the person making the call. The physical infrastructures connecting the two telephones could be self-supplied by the retail provider, or the retail provider may purchase them from a number of different suppliers in a number of wholesale markets. Each of these wholesale suppliers, in turn, may provide these services by purchasing network components or interconnection services from other wholesale network operators.
- 3.4 In this document, we use the terms downstream and upstream to refer to this sequence of retail and wholesale markets respectively. Retail markets are the most downstream markets. A supplier who provides a service to another supplier is upstream of that supplier in the chain of supply.
- 3.5 Because of this chain of supply, Ofcom considers that the set of markets in which competition is adversely affected by the combination of features it has identified consists of the upstream markets for the provision of access and backhaul network services, and all related downstream markets, including retail markets, for which the former services are a critical input.

Section 4

Features of the markets identified which prevent, restrict or distort competition

- 4.1 This section discusses the features of the markets identified which we suspect are resulting, and have resulted in a restriction of competition. We first identify features of the markets identified which in our view confer upon BT the ability and the incentive to engage in conduct which distorts competition. We then explain the basis for our reasons for suspecting that such conduct is taking, and has taken place. We consider the consequences of such structural features and behaviour for competition on the markets identified. Lastly, we set out our reasons for thinking that BT's ability and incentive to engage in conduct which restricts competition are likely to remain for the foreseeable future unless addressed.

Features giving rise to the ability and incentive for BT to distort competition

BT's enduring market power in the wholesale markets for network access and backhaul services

- 4.2 Ofcom believes that BT retains a substantial degree of market power in the wholesale markets for the provision of access and backhaul network services.
- 4.3 Since BT's privatisation and the subsequent pro-competitive policies of Oftel and Ofcom, an increasing number of fixed downstream and retail markets have been opened up to competition. However, for the reasons set out in the Telecoms Review phase 2 consultation document, most new competitors still rely heavily on upstream inputs provided by BT, the provision of which is therefore subject to regulatory intervention.
- 4.4 As explained in that document, BT's enduring market power arises because of the substantial economies of scale that exist in installing and operating access and backhaul network facilities. Furthermore, a very large proportion of the costs of such activities are sunk – that is not recoverable upon exiting the market. The combination of large fixed and sunk costs constitutes a significant barrier to entry and severely limits the number of potential competing infrastructure providers that the market could sustain. The OFT Draft Guidelines on the Assessment of market power list both sunk costs and economies of scale as factors that can raise entry barriers and therefore lead to the incumbents having market power⁵. Their combination is particularly important, as highlighted by the OFT: “large scale entry might require

⁵ OFT, Assessment of market power - Draft competition law guidelines for consultation, OFT415a, April 2004, paras 5.8 to 5.11 and 5.18 to 5.20.

relatively large sunk costs and might be more likely to attract an aggressive response from incumbents.”⁶

- 4.5 The barriers to entry are particularly pronounced for the access network, which is the last segment of the network which connects individual premises to the local exchange. This is the most difficult facility for any potential alternative network operator (or ‘altnet’) to replicate profitably.
- 4.6 In Ofcom’s view, similar conclusions also apply to other complementary network services, such as backhaul, in most locations. The economies of scale, and perhaps the proportion of those costs that have already been incurred but cannot be recovered to any significant degree (sunk costs), may be slightly less marked for some locations than in the access network. However, the homogeneous nature of backhaul services could influence the type of competition that occurs should a competitor enter the market. Given that there is little or no scope to differentiate rival backhaul network services, competitive differentiation needs to be largely based on price. Faced with an incumbent operator, like BT, with significant economies of scale and lower costs, the likelihood of profitable market entry by competitors is slim.
- 4.7 Given the above, Ofcom believes that BT’s ownership and control of such access and backhaul network infrastructure confers upon it substantial and enduring market power in the provision of services in the wholesale markets identified. Such market power is evidenced by the very large and persistently high market shares enjoyed by BT in the provision of those services. For the reasons we set out in Annex F, we do not believe that these conditions will change in the foreseeable future.

BT’s vertically integrated structure

- 4.8 BT is a vertically integrated group. It provides services in both the upstream wholesale markets for access and backhaul network services in which it has market power, and also in those directly related downstream markets in which it competes with its upstream customers. This vertical integration across markets is matched by the vertical integration within BT’s organisation, both in terms of its management structures and in terms of its network operations. This vertical integration gives rise to benefits to BT in terms of cost efficiency as well as financial and strategic synergies. There is nothing to suggest that BT’s current structure will change in the foreseeable future.

BT’s incentives to engage in discriminatory behaviour

- 4.9 The combination of market power in the markets for the provision of access and backhaul network services, and vertical integration into related downstream markets, provides BT with the ability and the incentive to engage in discriminatory behaviour against its downstream competitors. We explain the reasons for this conclusion in detail in Annex F.
- 4.10 When a vertically integrated firm has a substantial degree of market power in a market for the provision of an upstream input, it will, in many circumstances, have the incentive and the ability to treat its own downstream business more

⁶ OFT, op. cit., para 5.18.

favourably than its downstream competitors. Its upstream market power means that it is unlikely to lose share of upstream markets by supplying inferior products. The provision of inferior upstream products will maximise the profits of its combined upstream and downstream operations because it will have an advantage over competitors in downstream markets. This will be to the detriment of its downstream competitors and ultimately of final consumers.

- 4.11 The ability of a vertically integrated, dominant operator to exploit its market power in the provision of upstream services may be controlled, in part, by regulation designed to constrain any anti-competitive conduct. For example price controls may prevent a dominant operator with enduring market power from charging excessive prices for upstream products. Similarly, non-discrimination obligations, whether imposed under general competition law or specific sectoral regulation, may to some extent prevent the dominant operator from offering lower quality services, or unfavourable terms and conditions, to downstream competitors.
- 4.12 However, even when such regulatory controls are in place they may not fully be able to address the problems identified. Ofcom is particularly concerned about discrimination in relation to non-price terms and conditions. Such non-price discrimination may be much harder for a regulator to detect and address than price discrimination, yet it may have similarly detrimental effects on competition on downstream markets. The costs of regulation to address non-price discrimination on an issue-by-issue basis may also be excessive, particularly in markets characterised by rapid change, as we discuss in section 5.
- 4.13 We recognise that price and non-price discrimination are not necessarily anti-competitive in all cases. However, given the conditions which prevail in the wholesale and retail markets identified, and for the reasons set out in Annex F, we believe that non-price discrimination by BT is likely to have the effect of restricting competition and reducing benefits to consumers under most if not all circumstances.

Conduct which has had the effect of restricting competition in the markets identified

- 4.14 Ofcom suspects that BT may have acted in accordance with the incentives set out above in the wholesale markets identified, thereby restricting competition in the related downstream markets. We have analysed progress in the deployment of five of the most important wholesale products introduced recently, all of which are supplied by BT in the wholesale markets identified, namely: wholesale line rental (WLR), carrier pre-selection (CPS), local loop unbundling (LLU), DataStream, and partial private circuits (PPC). Each of these products was introduced by BT as a result of regulatory remedies in markets where BT has Significant Market Power (SMP). Between them, these products directly affect competition in downstream markets which represent around 87% of retail fixed telecoms revenues in the UK.
- 4.15 A detailed account of the development of each product is set out in Annexes G to K. The conclusions we have derived from those accounts are summarised below.

Reluctance to supply any wholesale product

- 4.16 When BT was first asked about the introduction of many of the wholesale products we have considered (such as LLU, PPCs and WLR), initially its response was that they were not required. When downstream competitors requested a product be made available, as in the case of DataStream for example, commercial negotiations between BT and downstream competitors wishing to purchase the product either failed, or led to irreconcilable disagreement over the commercial terms or product specification being offered by BT.
- 4.17 As a consequence, Oftel (Ofcom's predecessor) had on a number of occasions to mandate the introduction of upstream products through regulation, and in most cases also to specify in considerable detail the design of particular products. In the case of PPCs, for example, Oftel had separately to mandate the introduction of a number of different products within the same product group (varying according to speed and grade of service).
- 4.18 In relation to a number of the upstream products considered, continuing problems of design or specification mean that BT's downstream competitors are still not able to use the products effectively as inputs to competitive downstream products.

Supply of an inferior wholesale product

- 4.19 Our analysis of the selected wholesale products reveals many examples of products being supplied by BT to its wholesale customers of an inferior quality to those which BT supplies to its own downstream divisions. In some cases these wholesale products have not yet been designated by Ofcom as fit-for-purpose for use by downstream competitors as an input to a competitive downstream product. Ofcom believes that the effect has been to erode downstream competitors' ability to compete.
- 4.20 Individually, many of these issues might not have had a material impact on downstream competition. Cumulatively however, Ofcom believes that they have contributed to wholesale products being materially inferior to the inputs that BT supplies to its own downstream products, restricting downstream competitors' ability to construct competitive products in downstream markets.
- 4.21 The weaknesses of wholesale products offered to competitors have taken a variety of forms. These are described in detail in Annexes G to K, and they include:
- Differences in commercial terms and conditions. BT's wholesale customers have been subject to a wide variety of requirements which BT's downstream divisions have not been subject to. For example, for PPCs, CPS and WLR, BT required its wholesale customers to forecast future demand in order that it could better predict resource requirements for its upstream operations. Wholesale customers were subject to financial or other penalties if their actual demand did not match these forecasts. Because BT's downstream divisions were not subject to such requirements, these forecasting requirements had the effect of being discriminatory, and may have placed competitors at a commercial disadvantage;

- Inferior operational systems support. The wholesale products that BT offers to its downstream competitors have often been supported by operational systems which are less automated, or capable of less, than the systems supporting the products that BT supplies to itself. For example, this has resulted in much higher levels of order rejections for WLR and LLU, with the result that downstream competitors have taken longer than BT's downstream divisions to deliver their retail customers' orders;
- Differences in provisioning and migration of competitors' products. For many of these wholesale products, BT's upstream divisions have provisioned products earlier, or more rapidly for BT's downstream divisions than for its other wholesale customers. For example ports for IPStream, BT's end-to-end wholesale broadband service, could be reserved before ports were made available for DataStream, an upstream wholesale service;
- Inferior maintenance and fault clearing. In some cases, fault repair turnaround times that were available to BT's downstream divisions were not available to BT's wholesale customers;
- Differences in access to retail customer information. BT's own downstream divisions have access to its upstream divisions' customer databases, whereas BT's downstream competitors do not. One result of this, for example, has been a very high level of rejections of downstream competitors' orders because the customer address they provide does not precisely match that on BT's database; and
- Inferior access to BT's infrastructure. Some wholesale products, such as LLU, require downstream competitors to have a degree of access to BT's exchanges or other infrastructure. Difficulties finding a reasonable solution to BT's concerns over network integrity, for example, have meant that competitors have been disadvantaged in their access to BT's infrastructure, as compared to BT's own downstream divisions.

Resultant delays in introducing products and resolving problems

4.22 Resolution of the issues described above has resulted in long delays between the introduction of wholesale products by BT following regulatory intervention, and the effective deployment of those products as inputs of a competitive downstream service.

4.23 The delays with many wholesale products have been very substantial. For example:

- in November 1999, Oftel determined that BT must offer LLU products. In June 2005, five and half years later, the Telecommunications Adjudicator is still working with BT to resolve problems with many important features of the LLU products. As a result of such problems, the LLU products continue to suffer from inferior functionality to those that BT supplies to itself;

- four years have passed since BT was directed to negotiate the terms of PPC provision on a commercial basis, yet there remain a number of areas in which BT's wholesale customers consider that PPCs are inferior to the network inputs used by BT's downstream divisions; and
- Oftel's determination that BT must offer WLR as a remedy was taken in August 2002. BT's WLR product has been repeatedly redesigned to resolve problems identified by wholesale customers. Release 14.1 of WLR, which will address many (but not all) of the remaining issues, is expected to be launched in December 2005, nearly three and a half years after the original determination.

Response to supply of upstream products deters investment by competitors

4.24 Ofcom believes that the combination of BT's enduring market power in upstream wholesale markets, and its vertical integration into downstream markets, may have had the effect of deterring investment by competitors in upstream markets. Although it may not be intended by BT, this may have had the effect of restricting competition in upstream markets. Ofcom believes that investment may have been, and may be being deterred in this way for two reasons:

- Downstream product improvements. BT has upgraded downstream wholesale products for little or no additional cost, which may have had the effect of eroding the competitive advantage of customers purchasing upstream products. For example, when BT upgraded IPStream to include capacity-based charging for no additional charge, this had the effect of removing one of the competitive advantages of customers making investments on the basis of purchasing DataStream, an upstream product to IPStream. Similarly, BT has responded to the threat of competition from operators who might invest in businesses based on LLU inputs by reducing IPStream prices, possibly not to the point of causing a margin squeeze, but to the point of causing sufficient uncertainty and a sufficiently credible threat of further price competition that potential entrants are not able to build the business cases to support their investment; and
- Network investment. BT's market power in access and backhaul markets is causing significant uncertainty in the network upgrade plans of other networks, who must interconnect to BT. As a result, other operators are facing additional risks in investing in their own NGNs, until they know the design of BT's NGN. This may be causing them to delay investments, and forgo any competitive advantages that earlier deployment of such investments might give them.

4.25 Ofcom suspects that the structural features and conduct discussed above are having, and have had, the effect of restricting competition in all the downstream markets for which the upstream services are a critical input. Ofcom suspects that BT's downstream competitors are unable to compete as effectively, depriving them of the capacity to offer a service comparable with that offered by BT. The ability of alternative communications providers to offer new, innovative products and services in downstream markets may have been hampered. Investment by actual or potential competitors may be deterred. Ultimately, end consumers are likely to suffer as a consequence of reduced

choice, delayed introduction of services and potentially higher prices. The costs in terms of dynamic efficiency (that is the timely introduction of more efficient new services and new technologies) are likely to be especially pronounced in rapidly evolving telecoms markets.

Ability and incentive to discriminate likely to remain for the foreseeable future

- 4.26 Given the enduring nature of the features giving rise to BT's ability and incentive to discriminate against its downstream competitors, we expect this incentive to persist for the foreseeable future. For the reasons set out in Annex F, Ofcom considers that BT will continue to enjoy a substantial level of market power in the wholesale markets for network access and backhaul services in the UK. There is nothing to indicate that BT's vertically integrated structure will change.
- 4.27 While Ofcom's concerns about the effects of BT's behaviour cover all the relevant markets identified in Annex D, Ofcom has particular concerns in relation to the deployment which is currently underway of next generation networks. Ofcom suspects that the process by which BT's next generation network is being introduced is having the effect of restricting competition. Ofcom is therefore particularly concerned that, unless the issue of next generation networks is addressed at this time, BT's further upgrading of its network may happen in a way that has the effect of putting its downstream competitors at a disadvantage, and in so doing have the effect of restricting competition and harming consumers for the foreseeable future. These issues are further discussed in Annex L.

Section 5

The appropriateness of the proposed undertakings

- 5.1 Ofcom considers that the most appropriate and proportionate method of addressing the features identified above is by accepting the proposed undertakings offered by BT. In reaching that conclusion, we have considered *inter alia*:
- whether the problem is sufficiently serious to merit regulatory intervention at all;
 - whether we might otherwise proceed by means of the other powers available to us under the Competition Act 1998 and the Communications Act 2003;
 - whether the undertakings are apt to address the features identified; and
 - whether the undertakings satisfy the need to achieve as comprehensive a solution as is reasonable and practicable to the adverse effect on competition concerned, and to any detrimental effects on customers which result from the adverse effect on competition.

The scale of the problem

- 5.2 In assessing whether the problems identified above are sufficiently serious to merit intervention, Ofcom has taken account of the importance of the markets identified, the degree to which competition may be being distorted by the features identified, and the extent to which such features are likely to persist over time.
- 5.3 We have no doubt that the scale of the problem is sufficient to justify Ofcom either in making a reference under Part 4 of the Enterprise Act 2002 or, as is proposed here, in accepting instead undertakings in lieu. As we describe in Annex C, the markets identified are of unquestionable importance to the social and economic life of the UK. The non-price discrimination in which, in our view, BT has the ability and the incentive to engage, and which we suspect is occurring and has occurred, has hampered and is liable to hamper the ability of downstream competitors to compete effectively.
- 5.4 The combination of these features is likely to lead to reduced efficiency, competitive entry and innovation in the retail markets identified. This in turn is likely to result in higher prices and lower choice for the end consumer. As stated above, we do not envisage any change in the foreseeable future to the conditions that give rise to BT's ability and incentive to discriminate.

Other available powers

- 5.5 Ofcom considers that the features identified above may most effectively be dealt with by accepting the proposed undertakings rather than through the

exercise of its powers under the Competition Act 1998 or its *ex ante* regulatory powers.

The Competition Act 1998

- 5.6 On the basis of the materials currently available to it, Ofcom has no grounds for suspecting that there are anti-competitive agreements and/or concerted practices, within the meaning of Chapter I of the Competition Act 1998 or Article 81 EC, operating in the markets identified.
- 5.7 Discriminatory conduct by BT would be likely to constitute the abuse of a dominant position in the wholesale markets identified, contrary to Chapter II of the Competition Act 1998 and Article 82 EC.
- 5.8 Ofcom will continue to monitor the markets identified for breaches of EC and UK competition law and, where it is able to establish such breaches to have occurred, will intervene as necessary in exercise of its powers under the Competition Act 1998. For the following reasons, however, we believe that the features identified may more effectively be tackled by accepting the proposed undertakings.
- 5.9 First, there is a significant asymmetry of information that exists between BT and Ofcom (as well as between BT and its potential or actual customers and competitors). As a consequence, Ofcom may find it difficult to detect and prove in individual cases that non-price discrimination has in fact occurred.
- 5.10 Second, because of these difficulties of detection and proof, Ofcom may find it difficult to intervene in a timely fashion. Given the rapidly evolving character of the markets identified, any delay in intervention may confer first-mover advantages on BT and deter investment by actual or potential competitors.
- 5.11 Third, the proposed undertakings would constitute a more comprehensive solution to the problem than could be achieved by a series of interventions under the Competition Act 1998.
- 5.12 The European Commission has recognised that powers such as those available to Ofcom under the Competition Act 1998 may be inadequate to address market failures in certain sectors where 'the compliance requirements of an intervention to address a market failure are extensive'. For example, this could occur where there is a need to monitor 'terms and conditions including technical parameters', 'where frequent and/or timely intervention is indispensable' or 'where creating legal certainty is of paramount concern'.⁷

⁷ The Explanatory Memorandum to the European Commission's Recommendations on Relevant Markets, Commission Recommendation On Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, O.J. (2003) C-497, pp. 11-12.

Ex Ante Regulation

- 5.13 Ofcom also considers that the proposed undertakings would complement the ex ante regulatory powers available to it under the Communications Act 2003 and the EC Common Regulatory Framework for electronic communications networks, in providing an effective basis for addressing the features identified.⁸
- 5.14 The proposed undertakings deploy a variety of mechanisms aimed at defining equivalent treatment, and at preventing and detecting discriminatory conduct by BT when supplying wholesale network access and backhaul services to its downstream competitors. Using powers under the Communications Act or the Directives would involve Ofcom in commencing separate investigations in relation to particular products. The case studies in Annexes G to K illustrate the difficulties of detection, proof and delay in implementing effective remedies. This is particularly the case where the features which have been identified in the markets are resulting, and have resulted, in adverse effects on competition in respect of a wide range of products.
- 5.15 Further, as with the Competition Act, the proposed undertakings would constitute a more comprehensive solution to the problem than could be achieved by a series of interventions under the Communications Act. A product-by-product approach allows discrimination effectively to move from product to product within a chain of supply. For example, competition in an upstream market may be restricted if BT improves a downstream product without altering the margin between the two products. Alternatively, changes in the margin between an upstream and a downstream product affect competitors' ability to compete in each of these markets. The resulting uncertainty has the effect of reducing investment in these markets by operators competing with BT.

The purpose and effect of the undertakings

- 5.16 The purpose of the undertakings described in this document and set out in Annex E is to address the competition concerns described in section 4 of this document.
- 5.17 The undertakings are apt to address the competition concerns identified, because whilst they allow BT to retain its vertically integrated structure, they set out a detailed basis on which BT can operate within the context of its market power and vertical integration; and they constrain its ability and remove the incentives of its component divisions to engage in the types of conduct identified which have the effect of restricting competition.
- 5.18 These undertakings achieve this by a number of means. They identify a number of wholesale products in markets for access and backhaul network services. The supply of these products is critical to creating the conditions for effective competition at the deepest level of infrastructure at which such competition is likely to be sustainable. The undertakings specify particular circumstances in these markets in which the wholesale products supplied to other communications providers must be the same as those supplied to BT's

⁸ Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) OJ (2002) L 108, p. 33.

downstream divisions. To complement this, the undertakings increase the autonomy of decision-making within the parts of the BT group which supply wholesale products in the markets identified, and they affect the incentives of particular individuals and divisions within the BT group who supply these products. They restrict the information flows within the BT group to protect commercially sensitive information. They specify how the upgrades to BT's new network must adhere to the principles of non-discrimination. Finally, they increase the level of transparency within BT, to enable Ofcom and BT's wholesale customers to monitor whether these requirements are being complied with.

5.19 The undertakings BT offers are in five parts, as we discuss below:

- Equivalence of Inputs;
- Access Services Division;
- new management arrangements within BT;
- next generation networks; and
- Equality of Access Board.

Equivalence of Inputs

5.20 The proposed undertakings relating to equivalence of inputs would require BT to provide the same specified wholesale products and services, by means of the same systems and processes, on the same terms and conditions, to other communications providers and to its own downstream operations.

5.21 Because of the proposed undertakings on equivalence of inputs, BT's own downstream operations would use the same inputs as were being supplied to other communications providers. As a result, BT would have no incentive to engage in non-price discrimination such as delay in providing products or the provision of inferior products, and such conduct would be made much more difficult to achieve.

5.22 The undertakings apply equivalence of input to a defined set of products. These are products in the markets for access and backhaul services, in which (as we discuss in Annex D) Ofcom believes BT to have enduring market power. The product set covers the key access and backhaul products which are inputs to the following types of market:

- narrowband (voice) markets: various WLR products;
- broadband markets: shared and full metallic path facilities and IP-based bitstream access; and
- leased lines markets: Ethernet-based (fibre) access and backhaul⁹.

⁹ Specifically, equivalence of input will apply to wholesale extension service and backhaul extension service, and in future to a wholesale extension service access product, a wholesale extension service backhaul product, and a wholesale end-to-end Ethernet service

- 5.23 The product set does not include the current upstream inputs to leased lines market; partial private circuits (PPCs). We consider that it would be impractical and disproportionate to require equivalence of input to be applied to these products, because they are likely to be replaced over time by Ethernet-based products. However, it is likely that wholesale customers will continue to purchase at least some PPC products for some time to come. To address this, the undertakings would require BT to increase the level of transparency regarding the network inputs that it supplies to its own downstream divisions. The undertakings would commit BT to apply reasonable endeavours to address any concerns over non-equivalence that were identified as a result.
- 5.24 The product set includes a downstream wholesale broadband product, IP-based bitstream, currently in the form of IPStream. We consider that the upstream broadband product, LLU, will not be economically viable in many parts of the country, particularly rural areas, where there is a lack of customer density. BT's enduring market power in these locations is therefore likely to reside further downstream, namely in the provision of IP-based bitstream. We consider that it is impractical to identify the specific geographic areas in which LLU will be economically viable at this stage.
- 5.25 The proposed undertakings also specify a timetable for the delivery of equivalent products. We are satisfied that the dates specified are the earliest by which equivalence of inputs could reasonably and practicably be achieved, given the technical issues involved in its implementation.

Access Services Division

- 5.26 The proposed undertakings would establish an Access Services Division (ASD) within the BT group. ASD would control and manage the physical layer assets¹⁰ of the access and backhaul networks and employ all the staff operating and managing them. It would operate under a separate brand name, which would have no more than a minor association with the BT brand.
- 5.27 ASD would provide a set of defined products, including backhaul products which would be improved according to defined principles. This product set would not include IPStream. ASD would be prohibited from providing such products to BT which were not also available to other communications providers on an equivalence of inputs basis, unless there were no demand from other providers or unless Ofcom agreed otherwise.
- 5.28 The proposed undertakings specify a set of internal governance arrangements to secure an operational separation of ASD from the rest of BT's activities. These include provisions regarding the incentive-based remuneration for ASD's senior management, which would be aligned with the performance of ASD only; and provisions to prevent undue influence and inappropriate information flows between ASD and the rest of the BT group.
- 5.29 The purpose of these provisions is to address the competition concerns arising from the combination of BT's enduring upstream market power and its vertical integration. As set out in section 4 and in more detail in Annex F, it is these features that give rise to both the ability and the incentive to provide inferior upstream products.

¹⁰ "Physical layer" means the duct, fibre, copper and other non-electronic assets in a network

- 5.30 The vertical integration of BT operates at a number of different levels:
- the network and operations are vertically integrated, in that BT operates the only end-to-end fixed telecoms network with national (and near universal) coverage, including all the associated components, tiers and layers;
 - the organisation is integrated, in that a single management and team structure spans its activities across the value chain;
 - it benefits from strategic integration based on an integrated business strategy across the group; and
 - it also operates with financial integration in that it has consolidated capital and cash requirements.
- 5.31 **Network integration** has the benefit of economic and technical efficiency, but may enable discriminatory conduct because access to the network is controlled by a single organisation which supplies both the upstream and downstream products.
- 5.32 The provisions of the proposed undertakings would partition the network between: (i) ASD, which would contain the physical layer assets of the backhaul and access networks in ASD; and (ii) BT Wholesale, which would contain the transmission layer assets of these networks, as well as the core network assets.
- 5.33 We believe that this is a coherent and clear distinction, which addresses the competition effects of network integration without undermining the economic benefits of vertical integration. The undertakings provide that ASD would have sufficient influence over the use of the transmission layer assets that it would be able to act independently in the provision of its products using those assets. This gives the arrangement sufficient flexibility to adapt to changes in market conditions and technologies.
- 5.34 The **organisational integration** within the group (particularly within BT Wholesale as it is currently structured) gives the management of BT knowledge of activities and plans across the value chain. For example, BT Wholesale has an incentive to supply inferior LLU products, so that its market position in the provision of its downstream IPStream product is not jeopardised. BT Wholesale has the ability to change the specifications and pricing of its IPStream product in response to Ofcom's regulatory interventions to encourage competition based on LLU inputs.
- 5.35 The proposed undertakings address these concerns by providing an organisational separation between the upstream activities of ASD and the rest of BT. Teams would be separated organisationally and physically, and would be prohibited from passing commercial information or influencing commercial policy. The number of people in BT outside ASD who would be allowed to be insiders to ASD's plans by virtue of their group role, is tightly defined and the roles listed. The incentives of the senior management of ASD would be aligned with the performance of ASD only.

- 5.36 The **strategic integration** of BT gives rise to risks that the business strategy of the upstream operations will be determined with a view to the strategic interests of the group as a whole, rather than even-handedly for all the customers of the upstream operations. For example, a strategy that constrains investment in access products (for example, LLU) may benefit BT group but may disadvantage competitors.
- 5.37 The proposed undertakings would address this concern by giving ASD a degree of independence within an annual operating plan and capital expenditure plan agreed with the BT group. While this would not completely resolve the tension between the division's strategy and the broader strategy of the BT group, we consider that this is as far as it is reasonable and practicable for the undertakings to go. The alternative – entirely independent strategic plans for ASD – would not be compatible with the continuing duties of a single board of directors of British Telecommunications plc.
- 5.38 The proposed undertakings do not address the **financial integration** of the BT group. The capital and cash requirements of the group would continue to be consolidated. It is not clear that there are adverse competition effects from this fact, so long as the capital and cash resources are deployed in a non-discriminatory fashion within BT.
- 5.39 We consider that the operational separation provisions for ASD in the proposed undertakings would be sufficient to address the adverse competition effects arising from BT's enduring market power in upstream markets and its vertical integration whilst preserving the benefits of integration. They are also sufficiently flexible to accommodate changes in markets and technologies in the coming years.

New management arrangements within BT

- 5.40 The third part of the undertakings provides for new management arrangements within the rest of BT group (i.e. outside of ASD). These address three of Ofcom's competition concerns.
- 5.41 Firstly, Ofcom is concerned that BT, owing to its market power upstream and its vertical integration across the value chain, is able to respond to regulatory interventions upstream by action in downstream markets, particularly by product differentiation and innovation, and pricing decisions.
- 5.42 Secondly, Ofcom is concerned that BT's downstream retail operations have undue influence over the products and services provided by its upstream wholesale operations, to the detriment of retail competitors.
- 5.43 Thirdly, Ofcom would be concerned if competing retail service providers, who wanted to buy input products from BT, had to buy them from BT Retail, their main competitor.
- 5.44 The proposed undertakings would address these concerns by specifying various prohibitions on discriminatory behaviour or inappropriate information and undue influence passing between different teams and divisions within BT. These provisions would apply to the product management team in BT Wholesale responsible for SMP products. Products which are important upstream inputs for service providers would be managed within a new team in BT Wholesale, with some products being transferred out of BT Retail into this

team. BT would maintain an organisational separation between its downstream retail activities and its upstream wholesale activities, while allowing communications providers the choice of which they would prefer to be served by.

5.45 Ofcom considers that these provisions are sufficient to address its competition concerns, whilst allowing BT to provide services to its customers in an efficient fashion.

Next generation networks

5.46 BT is planning to transform its existing multiple electronic communications networks to a new next generation network technology, called its 21st century Network (21CN).

5.47 As is set out in section 4 and in more detail in Annex L, Ofcom is concerned that BT's investment in 21CN is providing BT with the ability to restrict competition, and that BT's upstream market power and vertical integration give it the incentive to do so. BT's network upgrade could restrict competition were it to:

- provide BT with a systematic first-mover advantage in the deployment of its NGN, as a result of its market power and its superior information about the design of the 21CN;
- provide BT's retail divisions with earlier and more complete information about the design of the network than is available to BT's downstream competitors;
- provide BT's retail divisions with more opportunity to influence the design of the 21 CN than is available to BT's downstream competitors;
- provide BT's downstream divisions with upstream products with higher functionality than those available to its downstream competitors;
- re-locate points of interconnection so that competitors' assets became stranded;
- be designed to provide end-to-end services, rather than unbundled network elements which allow competitors to make use of their own infrastructures;
- adopt interconnection arrangements that made capabilities such as end-to-end quality of service management harder for competitors to provide; and
- allow BT to upgrade customers using software switches, rather than physically reconnecting customers between pieces of equipment as must competitors using LLU – a slower and costlier process.

5.48 The proposed undertakings address these concerns. To deal with BT's reluctance to supply wholesale products required by other communications providers, the undertakings specify that BT would not foreclose opportunities for unbundled network access for other communications providers. They

include an undertaking by BT to design the network efficiently to provide products that it is predictable that other communications providers are likely to require – specifically SMP products and their successors. This is supported by a proposed undertaking for BT to bear the costs, at its expense, of any redesign of the network required to provide these products. This commitment gives BT an incentive to design the network with the needs of other communications providers in mind.

- 5.49 To deal with BT's provision of inferior products based on its 21CN, the proposed undertakings provide for the network to be designed so as to provide equivalence of inputs for SMP products that competitors are likely to require. In line with the proposed equivalence of inputs undertakings described above, this would make it much harder for BT to provide inferior wholesale products. In addition it is proposed that BT undertakes that it will ensure that the capability of its new network to switch customers between services electronically ("broadband dialtone") does not give it an advantage over competitors, who can only switch customers by physically moving their connections from one piece of equipment to another.
- 5.50 To deal with BT's ability, resulting from its vertical integration, to respond in downstream markets to the provision of upstream inputs for competitors, BT is proposing an undertaking not to provide retail products based on its 21CN until wholesale variants are available.
- 5.51 To deal with the cost implications of BT's plans on other communications providers, the undertakings set out the principles BT would apply in making compensation payments to these providers for the costs of reconfiguring their networks. This would give BT an incentive to optimise the costs incurred across all of the industry, not just its own.
- 5.52 Lastly, to deal with the asymmetry of information and delays in providing information to other communications providers, BT is offering an undertaking to participate in a multi-lateral industry group, which would have the power to make plans for the transition of UK telecoms networks in general to the next generation of technology.

Equality of Access Board

- 5.53 The final part of the proposed undertakings relates to the establishment of a new internal compliance function called the Equality of Access Board, which would be supported by an Equality of Access Office.
- 5.54 At its most general, Ofcom's concern is that BT is able to engage in vertical non-price discrimination between its own operations and those of other communications providers. By its nature vertical non-price discrimination is difficult to detect, either by competitors or by the regulator, who are by definition external to BT's organisation.
- 5.55 The Equality of Access Board would address this concern by establishing an independent, authoritative and transparent board within BT to monitor BT's compliance with the undertakings.
- 5.56 The independence of the board would be secured by the fact that a majority of its members would be independent of BT. It would have the authority to obtain information and investigate compliance, through the work of the Equality of

Access Office. It would record its proceedings in minutes, which would be available to Ofcom. Any breaches identified would be reported to Ofcom. It would conduct annual reviews and would publish its reports.

- 5.57 Ofcom considers that this monitoring arrangement would make a substantial contribution to ensuring compliance with the rest of the proposed undertakings, and as such adds to the comprehensive nature of the package of undertakings offered.

Northern Ireland

- 5.58 All the proposed undertakings discussed above would apply in Northern Ireland, except for the operational separation of an ASD in Northern Ireland (and some consequential proposed undertakings around staff incentives). Equivalence of inputs, prices, processes and timescales; the Equality of Access board; the provisions relating to next generation networks; and all the other undertakings would be the same in Northern Ireland as in the rest of the UK.
- 5.59 The reason for the exception is that BT Northern Ireland is a comparatively small division of BT, and has historically been structured as a single, vertically integrated operation. Ofcom considers that it would not be practical to draw a boundary line between ASD and non-ASD staff in Northern Ireland. Furthermore, product management and many other functions are run on a national (all UK) basis, operating out of London. Therefore, the only roles potentially separable in Northern Ireland would be local operations and local sales (other functions, such as sales to corporate customers and call centres, are either carried out on the mainland, or are not specific to Northern Ireland).

The need to achieve as comprehensive a solution as is reasonable and practicable

- 5.60 Ofcom believes that this package of undertakings offered by BT represents as comprehensive solution as is reasonable and practicable to the adverse effects on competition, and to the detrimental effects on customers described above.
- 5.61 A more restrictive set of obligations on BT would come at a cost in terms of flexibility, practicability and efficiency. In particular, in Ofcom's view it would not be proportionate at this time to seek the structural separation of the BT group, a remedy which would in principle be available to the Competition Commission following a reference. We perceive that there are some benefits to consumers from BT's vertical integration, and the package of proposed undertakings seeks to retain these while addressing the adverse effects of vertical integration on competition.
- 5.62 Conversely, a less restrictive set of obligations on BT would be less able to address the features of the market that Ofcom has identified and which currently confer on BT the ability and incentive to engage in discriminatory behaviour.

Section 6

Conclusion

- 6.1 Ofcom considers that the undertakings offered by BT are appropriate and proportionate to address the competition concerns and the detrimental effect on customers which it has identified. Ofcom further considers that they represent as comprehensive a solution as is reasonable and practicable to those concerns and effects. We believe that they would deliver real benefits to businesses and consumers in the UK through the lower prices, wider choice, and faster access to new services that would result from increased competition.
- 6.2 Ofcom invites written views and comments on the issues raised in this document, to be made by 12 August 2005.