



End-to-end connectivity

Consultation

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Section 1

Executive summary

Background

- 1.1 "End-to-end connectivity" describes the process of enabling retail customers to make calls to other customers or services on the same network or other providers' networks¹. This is important for both competition generally and end-users individually. Competing communications providers need to be able to interconnect with other networks in order to provide a full service to their customers. Customers expect to be able to call every other retail customer irrespective of the network to which the called party is connected.
- 1.2 On 27 May 2003 Ofcom published guidance on the provision of end-to-end connectivity. This document – *End-to-end connectivity – Guidance issued by the Director General of Telecommunications*² ("the Ofcom guidelines") – set out Ofcom's approach to the provision of end-to-end connectivity.
- 1.3 In November and December 2005, the Competition Appeal Tribunal's (CAT) gave judgment³ and made an order⁴ on the appeal by H3G against Ofcom's decision that H3G had significant market power in the market for mobile voice call termination on H3G's network (case number 1047/3/3/04). The CAT remitted to Ofcom for reconsideration whether H3G has significant market power in the market for mobile wholesale voice call termination on its network taking into account the extent to which countervailing buyer power exists in BT and any other matters as are relevant at the time of Ofcom's reconsideration.
- 1.4 In the context of reconsidering this issue, but also more generally, Ofcom has been considering the measures necessary to ensure end-to-end connectivity. In particular, Ofcom considers that the Ofcom guidelines are not sufficient to ensure end-to-end connectivity and that to ensure end-to-end connectivity, it is necessary to propose an obligation to that effect.

Options and impact assessment

- 1.5 Under the previous telecommunications regulatory framework, BT was obliged under its licence conditions to allow interconnection so as to provide end-to-end connectivity. In anticipation of the current legislative framework for electronic communications Ofcom issued its guidance. Ofcom considered that the issuing of guidelines would be sufficient to provide for interconnection and end-to-end connectivity on the premise that BT as a universal service provider would in any event be required to meet all reasonable requests from their customers to provide access to publicly available telephone services; and that in meeting this requirement BT would be expected to ensure end-to-end connectivity. On which basis Ofcom considered that to impose a further obligation to ensure end-to-end connectivity

¹ "End-to-end connectivity means the facility – (a) for different users of the same public electronic communications service to be able to communicate with each other; and (b) for the end-users of different such services to be able, each using the service of which he is the end-user, to communicate with each other", Section 74(3) Communications Act

² http://www.ofcom.org.uk/static/archive/ofcom/publications/eu_directives/2003/endcon0503.htm

³ 29 November 2005, <http://www.catribunal.org.uk/documents/Jdg1047H3G281105.pdf>

⁴ 16 December 2005, <http://www.catribunal.org.uk/documents/Order1047H3G161205.pdf>

would be disproportionate and it was sufficient to issue guidance, *inter alia*, setting out its expectation as to the effect of the universal service obligation on BT. However, Oftel noted at the time that if these arrangements were inadequate to ensure end-to-end connectivity it might propose an obligation on BT and / or other providers, recognising the importance of end-to-end connectivity for competition generally and end-users.

- 1.6 For the reasons set out at paragraphs 2.12-2.15 Ofcom does not consider that the existing Oftel guidelines are sufficient to ensure end-to-end connectivity since they rely on the universal service obligations which do not extend to a requirement to connect end-users to every network.
- 1.7 On this basis, Ofcom has identified four options for ensuring end-to-end connectivity:
- Option 1 – Do nothing;
 - Option 2 – To publish new guidelines;
 - Option 3 – To require all providers of a public electronic communications network ('PECN') to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services on reasonable terms and conditions from any other PECN who wishes to supply termination to it (and its customers);
 - Option 4 – To require BT to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services on reasonable terms and conditions from any PECN who wishes to supply termination to BT (and its customers) on the basis that end-to-end connectivity will be ensured through an obligation on BT without the need to impose such an obligation on all PECNs.
- 1.8 Option 1 considers whether, if there are no guidelines and no obligation, there is a risk that end-to-end connectivity may not be ensured. Given the asymmetries between PECNs in respect of the number of telecoms connections and in particular the prominent role of BT also as a provider of transit, there is a risk that commercial incentives may be insufficient to ensure end-to-end connectivity and in Ofcom's view this option is not appropriate.
- 1.9 Option 2 considers whether revised guidelines will be sufficient to ensure end-to-end connectivity. Ofcom believes that absent an obligation to purchase, there is a risk that end-to-end connectivity may not be ensured, and in Ofcom's view this option is not appropriate.
- 1.10 Options 3 and 4 consider whether the imposition of an obligation to ensure end-to-end connectivity should be on all PECNs or on BT only. Ofcom considers that once a PECN has secured an agreement to send calls to BT's network, they will be in a position to send calls to all other networks (thereby securing end-to-end connectivity for their customers). This is due to BT's position in the provision of transit whereby BT buys termination on behalf of a large part of the industry in addition to buying termination for itself. BT is the largest provider of telecoms connections (taking both fixed and mobile together)⁵. In addition being the largest provider of transit, BT is also by far the largest buyer of call termination in the UK.
- 1.11 Therefore, Ofcom considers that an access-related condition on BT alone is necessary to ensure end-to-end connectivity. A PECN cannot effectively refuse to

⁵ See further paragraphs 3.25-3.26

terminate calls originated by another PECN where that PECN buys transit and termination services via BT.

Proposals

- 1.12 As a result of the analysis contained in the impact assessment set out in Section 3 of this document, Ofcom is proposing to introduce an access-related condition under Sections 73 and 74 of the Act.
- 1.13 The proposed access-related condition will apply to BT only, and will require BT:
- to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services from any PECN that reasonably requests in writing that BT purchases such services (proposed condition 1.1);
 - to ensure that the purchase of the wholesale narrowband (fixed and mobile voice and narrowband data) call termination services shall occur as soon as reasonably practicable and shall be on reasonable terms and conditions (including charges), and on such terms and conditions (including charges) as Ofcom may from time to time direct (proposed condition 1.2);
 - to ensure that after purchasing wholesale narrowband (fixed and mobile voice and narrowband data) call termination services, BT will not be able to unreasonably change, withdraw or restrict access to an applicable Normal Telephone Number (proposed condition 1.3); and
 - to comply with any direction Ofcom may make from time to time under this Condition (proposed condition 1.4).
- 1.14 For the reasons set out in detail in Section 4, Ofcom considers among other things that this proposal is objectively justifiable, proportionate, non-discriminatory and transparent.

Next steps

- 1.15 Ofcom is consulting on these proposals until 15 August 2006. When Ofcom has considered responses to this consultation, it will decide whether to give effect to its proposals, with or without modifications, by publishing a final statement in September 2006.
- 1.16 In this case Ofcom considers it appropriate to consult for a month because it is an issue that needs to be looked at urgently as it is important that there is certainty in relation to the security of provision of end-to-end connectivity as soon as possible in the interests of competition and end-users. This is in line with Ofcom's guide to its consultation process.⁶

⁶ See page nine, http://www.ofcom.org.uk/consult/consult_method/consult_guide.pdf

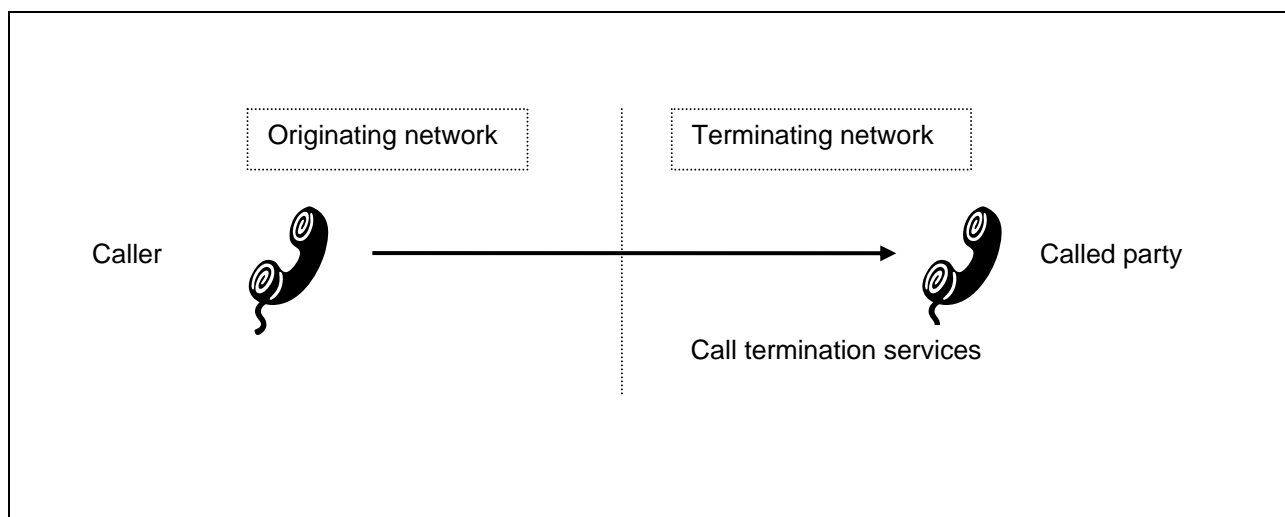
Section 2

Background

End-to-end connectivity and its importance

- 2.1 "End-to-end connectivity" describes the process of enabling retail customers to make calls to other customers or services on the same network or other providers' networks⁷. This is important for both competition generally and end-users individually. Competing communications providers need to be able to interconnect with other networks in order to provide a full service to their customers. Customers expect to be able call any other retail customer irrespective of the network to which the called party is connected.
- 2.2 The ability to deliver end-to-end calls across networks requires interconnect agreements between providers. The provider originating the call will have to have sought and purchased a "call termination" service from the network provider of the called party. The provider delivering the final stage of the call to the called party will have to have offered and agreed to provide the call termination service to the originating network provider.

Figure 1 – A straightforward call across networks



Ofcom's guidelines on end-to-end connectivity

- 2.3 On 25 July 2003, a new regulatory regime for electronic communications networks and services entered into force. The basis for this framework was five EU Communications Directives as follows:
- the Framework Directive – Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services;

⁷ "End-to-end connectivity means the facility – (a) for different users or the same public electronic communications service to be able to communicate with each other; and (b) for the end-users of different such services to be able, each using the service of which he is the end-user, to communicate with each other", Section 74(3) Communications Act

- the Access Directive – Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities;
- the Authorisation Directive – Directive 2002/20/EC on the authorisation of electronic communications networks and services;
- the Universal Service Directive – Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and associated facilities; and
- the Privacy Directive – Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector.

2.4 In carrying out market reviews and in setting universal service conditions under the new regime in 2003, Oftel had to consider how end-to-end connectivity was to be ensured. On 27 May 2003 Oftel published guidance on this issue – *End-to-end connectivity – Guidance issued by the Director General of Telecommunications*⁸ (“the Oftel guidelines”). This document set out Oftel’s approach to ensuring that providers request and purchase termination services from other providers; and offer call termination services when requested.

2.5 In summary the Oftel guidelines stated that among other things:

- The proposed market reviews – *Review of fixed geographic termination markets* (published 17 March 2003)⁹ and *Review of mobile wholesale voice call termination markets* (published 15 May 2003)¹⁰ – would require providers to offer call termination services;
- BT and Kingston – in meeting their requirements as universal service providers to meet all reasonable requests from their customers to provide access to publicly available telephone services – could be expected to ensure that their customers can call other customers and services irrespective of terminating network, i.e. to provide end-to-end connectivity; and

2.6 On the basis set out above, Oftel did not consider it need to impose *ex ante* conditions at that time. However, it noted that it had the powers under Article 5 of the Access Directive to impose obligations to the extent necessary to ensure end-to-end connectivity.

2.7 Ofcom has considered whether the basis for ensuring end-to-end connectivity relied upon by Oftel in the Oftel guidelines is sufficient. Specifically, in the Oftel guidelines, Oftel stated that:

S5 This guidance document explains that if, as proposed in Notification of proposals for the designation of universal service providers and setting of conditions published on 12 March 2003, BT and Kingston remain the Universal Service providers in the UK, they will be required to meet all reasonable requests from their customers to provide access to publicly available telephone services. In meeting this requirement Oftel would expect BT and Kingston to

⁸ http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/endcon0503.htm

⁹ http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/eu_geo_term/index.htm

¹⁰ http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/ctm/ctm0503.pdf

ensure that their customers can call other customers and services irrespective of terminating network, that is to provide end-to-end connectivity.

2.8 It went on to explain its view of the expected effect of the universal service obligations as follows:

2.5 BT and Kingston are currently the Universal Service providers. The Universal Service Obligation (USO) is a fundamental part of consumer protection in communications regulation – ensuring that basic telephony services are made available to everybody upon reasonable request and at an affordable price.

2.6 Oftel's view is that ensuring customers of the USO providers can call other customers and services, irrespective of network, is an important part of the basic consumer protection that USO affords. Without connectivity across networks, customers could only speak with, or send data to, customers connected to the same network. This would reduce consumer choice and welfare.

2.7 There are also economic benefits arising from the network externality on which the USO is based. As the number of people accessible by phone increases, so does the value to all customers of being on the network – because they can contact a larger number of people. This means that there is an economic basis for ensuring that telephone services offering full connectivity are provided to people if those services might not otherwise be supplied by the market.

2.8 The basic principles of USO continue with the new regime. Article 4(1) of the Universal Service Directive requires Member States to ensure that all reasonable requests for connection at a fixed location to the public telephone network and for access to publicly available telephone services at a fixed location are met by at least one undertaking.

2.9 Oftel published a consultation document Notification of proposals for the designation of universal service providers and setting of conditions on 12 March 2003. In this document Oftel proposed that the Universal Service providers be required to provide Telephony Services at the reasonable request of any end-user. 'Telephony Services' are defined as either or both single or narrowband connection at a fixed location to the Public Telephone Network and access to Publicly Available Telephone Services (PATS). Oftel is proposing that PATS is defined as a 'service available to the public for originating and receiving national and international telephone calls and access to Emergency Organisations through a Telephone Number or Numbers, and in addition may, where relevant, include one or more of the following services: the provision of operator assistance services, Directory Enquiry Facilities, Directories, provision of Public Pay Telephones, provision of service under special terms, provision of specific facilities for End-Users with disabilities or with special social needs and/or the provision of non-geographic services'.

2.10 Oftel proposes to continue the existing policy that USO providers, in meeting reasonable requests to provide access to PATS, must ensure that their customers can call other customers and services irrespective of terminating network, that is they must provide end-to-end connectivity.

2.11 In the USO consultation document, Oftel is proposing to designate BT and Kingston as Universal Service providers, although Kingston's designation will only apply in respect of activities in the Hull area.

- 2.9 Subsequently, on 25 July 2003, Oftel designated BT and Kingston as universal service providers. In particular, the USO in Article 4(1) of the Universal Service Directive was, in effect, transposed under Universal Service Condition ("USC") 1, which provides:

Part 2: Proposed conditions for British Telecommunications plc

Condition 1: Provision of telephony services on request

1.1 At the reasonable request of any End-user, BT shall provide Telephony Services, including the ability to make and receive calls employing facsimile and data communications, at data rates that are sufficient to permit functional internet access, to that End-user at any place in the UK except for the Hull Area, and BT shall ensure that its Electronic Communications Networks are installed, kept installed and run for those purposes.

1.2 Unless the Director consents otherwise, BT shall provide the services referred to in paragraph 1.1 on the basis of uniform prices throughout the UK except for the Hull Area.

- 2.10 The term "Telephony Services" provides:

"Telephony Services" means either or both a single narrowband connection at a fixed location to the Public Telephone Network and access to Publicly Available Telephone Services;

"Publicly Available Telephone Service" means a service available to the public for originating and receiving national and international calls and access to Emergency Organisations through a number or numbers in a national or international telephone numbering plan, and in addition may, where relevant, include one or more of the following services: the provision of operator assistance services, Directory Enquiry Facilities, Directories, provision of Public Pay Telephones, provision of service under special terms, provision of specific facilities for End-Users with disabilities or with special social needs and/or the provision of non-geographic services;

- 2.11 The Oftel Statement accompanying the Notification setting USC 1 explained that Oftel expected end-to-end connectivity to be provided by reference to the universal service obligation:

End-to-end connectivity

3.11 It is an important part of the basic consumer protection afforded by universal service that end-users can call all other end-users and access all publicly available telephone services, irrespective of network. Without such connectivity across networks, end-users could only speak with, or send data to, other end-users who were customers of the same communications provider, and would not have access to the full range of publicly available telephone services. This would reduce consumer choice and welfare.

3.12 As part of the requirement to meet all reasonable requests to provide access to publicly available telephone services, Oftel therefore expects BT and Kingston to ensure that their customers can make calls across networks. In interconnect terms, this means that BT and Kingston have to purchase 'call termination' services from other providers. Further details on this issue are set out in the guidance note End-to-end connectivity published by Oftel on 27 May 2003.

- 2.12 It appears that Oftel intended that BT would be required to provide end-to-end connectivity. However, on closer examination of the requirement in USC 1, Ofcom is not satisfied that it could effectively enforce that requirement against BT as a means to ensure end-to-end connectivity if BT decided not to purchase wholesale narrowband (whether fixed, mobile, voice or data) call termination services from any operator that wished to sell such service to BT.
- 2.13 Oftel's position would require interpreting Article 4(1) of the Universal Service Directive (USC 1) as imposing not only a retail obligation – the provision of "Telephony Services" to all end-users – but also an implied wholesale obligation on BT to purchase termination services. In Ofcom's view, Article 4(1) does not contemplate that the obligations placed on designated undertakings might require them to supply or purchase services at a "wholesale" level, that is to say to or from other communications providers.
- 2.14 Secondly, the term "Telephony Services" does no more, by definition (as seen above), than require BT to provide access to PATS. If that definition is properly construed together with the text of USC 1 itself, it is plain that this requirement simply concerns a particular end-user's ability to make and receive calls of a particular kind, i.e. PATS. BT could potentially satisfy this obligation simply by allowing an end-user access to a basic telephony service. But USC 1 does not then proceed to require BT to ensure that such an end-user can make calls to every, or a particular, network.
- 2.15 Therefore, Ofcom's view is that USC 1 does not provide an appropriate basis for a legally enforceable end-to-end connectivity obligation as envisaged by the Oftel guidelines.

Summary

- 2.16 Ofcom considers that the current approach, i.e. relying for the ability to ensure end-to-end connectivity on guidelines which are premised on universal service obligations, is not sufficient to ensure end-to-end connectivity.
- 2.17 Given such a view, Ofcom believes it appropriate to consider how end-to-end connectivity can be ensured, and the next section sets out the options that Ofcom has identified to accomplish this and assesses the impact of these options.

Section 3

Options and impact assessment

The options

- 3.1 Sections 73 and 74 of the Communications Act 2003 (“the Act”) provide Ofcom with powers to impose end-to-end connectivity obligations on undertakings that control access to end-users.
- 3.2 Ofcom’s powers under Sections 73 and 74 of the Act to impose access-related conditions relating to end-to-end connectivity are discretionary. Section 73(2) of the Act states that Ofcom may set access-related conditions. The Act stipulates that such conditions may be set as it appears to Ofcom appropriate for the purpose of securing:
- (a) efficiency on the part of communications providers and persons making associated facilities available;
 - (b) sustainable competition between them; and
 - (c) the greatest possible benefit for the end-users of public electronic communications services.
- 3.3 Section 74(1) of the Act states that the conditions that may be set under Section 73(2) above, include conditions which:
- “[...] for the purpose of securing end-to-end connectivity for the end-users of public electronic communications services provided by means of a series of electronic communications networks-
- (a) impose obligations on a person controlling network access to any of those networks; and
 - (b) require the interconnection of the networks.”
- 3.4 End-to-end connectivity is defined in Section 74 of the Act as:
- “the facility (a) for different end-users of the same public electronic communications service to be able to communicate with each other; and (b) for the end-users of different such services to be able, each using the service of which he is the end-user, to communicate with each other.”
- 3.5 Sections 73 and 74 implement Article 5(1) AD. Article 5(1)(a) AD states that:
- “without prejudice to measures that may be taken regarding undertakings with significant market power [...] national regulatory authorities shall be able to impose: (a) to the extent that is necessary to ensure end-to-end connectivity, obligations on undertakings that control access to end-users, including in justified cases the obligation to interconnect their networks where this is not already the case;”

- 3.6 Therefore, separately from any finding of significant market power, Ofcom can – to the extent that is necessary to ensure end-to-end connectivity – impose obligations to purchase wholesale narrowband call termination services on undertakings such as BT, cable or other operators, as among other things they control access to their end-users.
- 3.7 As set out in Section 2, Ofcom believes that the current situation in relation to ensuring end-to-end connectivity is inadequate and therefore it is necessary to ensure end-to-end connectivity. Ofcom considers that it should withdraw the Oftel guidelines which are in Ofcom's view based on an incorrect view as to the scope of the universal service obligations.
- 3.8 On this basis, Ofcom has identified four options for ensuring end-to-end connectivity, in light of the importance of this obligation for competition and end-users:
- Option 1 – Do nothing;
 - Option 2 – To publish new guidelines;
 - Option 3 – Require all providers of a public electronic communications network ('PECN') to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services on reasonable terms and conditions from any other PECN who wishes to supply termination to it (and its customers);
 - Option 4 – Require BT to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services on reasonable terms and conditions from any PECN who wishes to supply termination to BT (and its customers) on the basis that end-to-end connectivity can be secured through an obligation on BT without the need to impose it as an obligation on all PECNs.
- 3.9 In assessing the options, Ofcom considers that any policy it adopts is likely to affect many different groups of stakeholders. Consumers and citizens will be affected as the ultimate users of services requiring interconnection; business customers of PECNs are also potentially affected by any lack of interconnection. Whether or not there is a requirement to provide end-to-end connectivity will also impact upon PECNs themselves, in particular as regards the levels of service (degree of interconnection provided) they offer.
- 3.10 The four options are considered below and their impacts assessed. The analysis presented in this Section represents an impact assessment, as defined in Section 7 of the Communications Act 2003 (the Act). Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making. For further information about our approach to impact assessments, see the guidelines, *Better policy-making: Ofcom's approach to impact assessment*, which are on our website: http://www.ofcom.org.uk/consult/policy_making/guidelines.pdf.

Option 1 – Do nothing

- 3.11 Ofcom could decide not to issue new guidelines or impose an end-to-end connectivity obligation.
- 3.12 Although Ofcom considers that generally it will be in the commercial interest of communications providers to purchase termination from other providers, there is a risk that in some circumstances providers of communications services may not be

sufficiently incentivised to purchase termination, particularly from new market entrants or they may delay negotiations unreasonably. This may be due to potentially large differences between the sizes of different providers in terms of the number of retail customers they serve or their ubiquity in providing related services such as transit as set out below in Options 3-4. For example, a provider may not wish to have to interconnect with multiple small providers. If a provider has no customers there may not seem an imperative to agree to purchase termination.

- 3.13 Ofcom's view is that this option is not appropriate, as it would not be sufficient to ensure end-to-end connectivity. This is because as set out in the previous paragraph, there is a risk that end-to-end connectivity may not be provided under all appropriate circumstances. In light of the importance of ensuring end-to-end connectivity for competition and end-users, Ofcom also considers that it would not be appropriate to rely only on taking action *ex post* under competition law after end-to-end connectivity has failed to be provided at all or on reasonable terms and conditions.

Option 2 –To publish new guidelines

- 3.14 Ofcom could publish new guidelines setting out its policy that it expects end-to-end connectivity to be provided. If end-to-end connectivity was not provided, Ofcom could then seek to impose an obligation under the Access Directive.
- 3.15 Although providers would no doubt be mindful of guidelines, this option would not necessarily ensure end-to-end connectivity for the same reasons as set out in Option 1 above. There is a risk, therefore, that Option 2 could allow one or more providers not to provide end-to-end connectivity for end-users and could mean certain PECNs (particularly new entrants) would not be able to sell termination services, a pre-requisite for calls to be made to their customers. In light of the importance of ensuring end-to-end connectivity for competition and end-users, Ofcom considers that this option is not sufficient.

Options 3 and 4

- 3.16 As set out above, Ofcom considers it necessary to impose an obligation to ensure end-to-end connectivity. The following options consider what is the most appropriate form of such an obligation.

Option 3 – Imposing an access-related condition on all PECNs to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services from any other PECN

- 3.17 This option would impose an end-to-end connectivity obligation on all PECNs so that all such network providers would have to purchase termination when subject to a request from another PECN. Ofcom's initial view is that such an obligation on all PECNs would not be appropriate and proportionate. This is particularly the case because of the interrelationship with the transit market. Once a PECN has secured an agreement to send calls to BT's network, they will in any event be in a position to send calls to all other networks (thereby securing end-to-end connectivity for their customers)¹¹. This is due to BT's position in the provision of transit whereby BT buys

¹¹ This is important and is because due to number portability a terminating network is not in a position to identify on which PECNs network a call has originated. Hence once a PECN is able to send calls to BT and buy termination and transit through BT, no other PECN is in a position to refuse to terminate all calls from another PECNs network.

termination on behalf of a large part of the industry in addition to buying termination for itself.

- 3.18 Figures 2 and 3 below illustrate the two forms of fixed transit – inter-tandem transit and single transit. Inter-tandem transit is the service an operator provides to convey calls between its tandem exchanges when a call originates and terminates on networks other than its own. Single transit is the service an operator provides when a call originates and terminates on networks other than its own and the originating and terminating operators are directly connected at the same transit operator’s tandem exchange. The call is therefore transited through a single tandem exchange. Mobile transit is slightly different but the same principles as illustrated by the figures below will still apply.

Figure 2: Inter-tandem transit

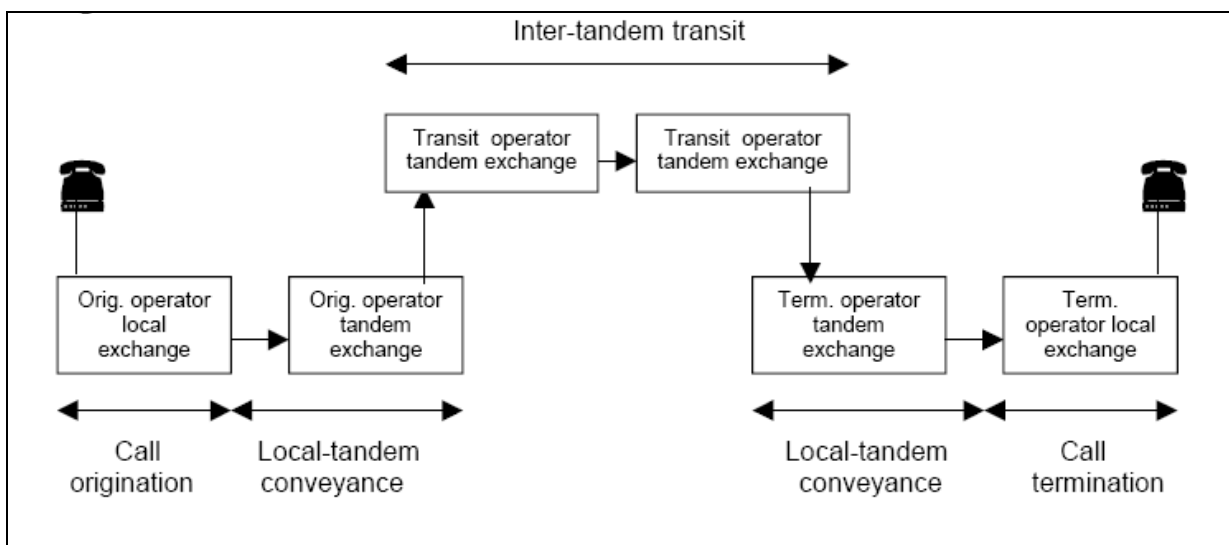
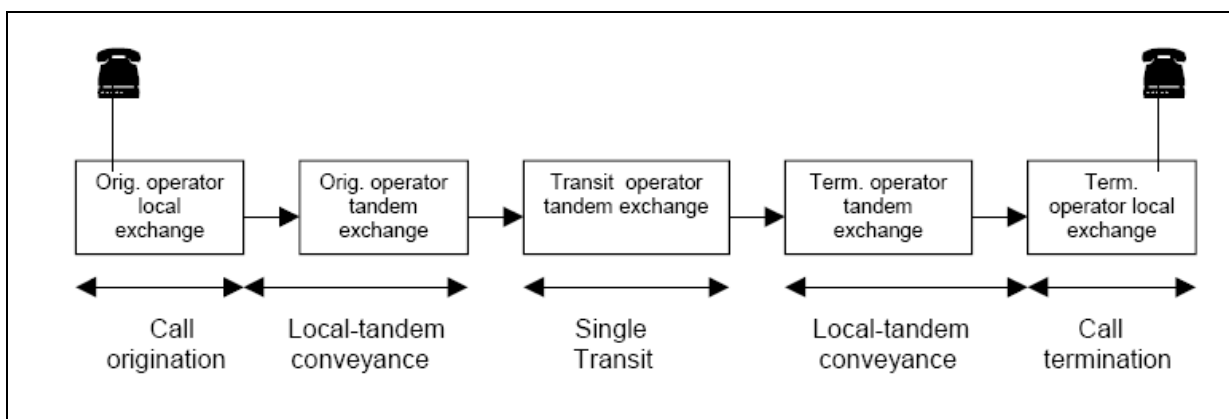


Figure 3: Single Transit



- 3.19 As a provider of transit, BT is the single largest provider of transit and the single largest buyer of voice call termination¹².

- 3.20 BT’s prominent role in transiting calls also means that direct interconnection between all PECNs may not be essential to secure end-to-end connectivity for other PECNs.

¹² For UK geographic and mobile call volumes. Source: Internal Ofcom estimates.

Rather, once a PECN has bought transit services from BT the users of that PECN are already able to contact customers on any other network provided that BT itself does buy termination from that network.

- 3.21 Ofcom notes in this context however, that the end-to-end connectivity obligation does not imply that BT has any obligations in relation to transit. Rather, Ofcom notes that in practical and commercial terms (rather than it being a regulatory requirement), once a PECN has achieved interconnection with BT, they will normally already be in a position to terminate calls on all other networks. This is because by virtue of BT's unique position in the provision of transit, BT buys termination on behalf of a large part of the industry in addition to buying termination for direct interconnection on behalf of its own customer base.
- 3.22 Thus, while there is a risk that BT may have, under some circumstances, incentives to refuse to buy termination and not to provide end-to-end connectivity, it is unlikely that any other PECN will have the incentive of doing so under current market conditions. Therefore, Ofcom considers it disproportionate to propose that an end-to-end connectivity obligation is imposed on all PECNs.

Option 4 – Imposing an access-related condition on BT to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services from any PECN on reasonable terms and conditions (including charges)

- 3.23 Option 4 provides that the proportionate way to secure end-to-end connectivity is by imposing an access-related condition on BT to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services from any PECN provider who has a normal telephone number¹³ and who wishes to supply termination to BT (and its customers). This is Ofcom's proposed option.
- 3.24 This option proposes that the end-to-end connectivity obligation is placed only on BT because of BT's position in the transit market (as explained in paragraphs 3.17-3.21) and BT's position in relation to call origination.

Table 1: Summary of exchange line numbers at end of quarter by operator (000's)

	All Operators	BT	ntl & Telewest	Other	BT Share
2004 Q4	33,740	27,721	4,728	1,292	82.2%
2005 Q1	33,542	27,502	4,746	1,293	82.0%
2005 Q2	32,933	26,959	4,682	1,292	81.9%
2005 Q3	32,336	26,357	4,687	1,292	81.5%
2005 Q4	31,796	25,874	4,631	1,290	81.4%

Source: Ofcom

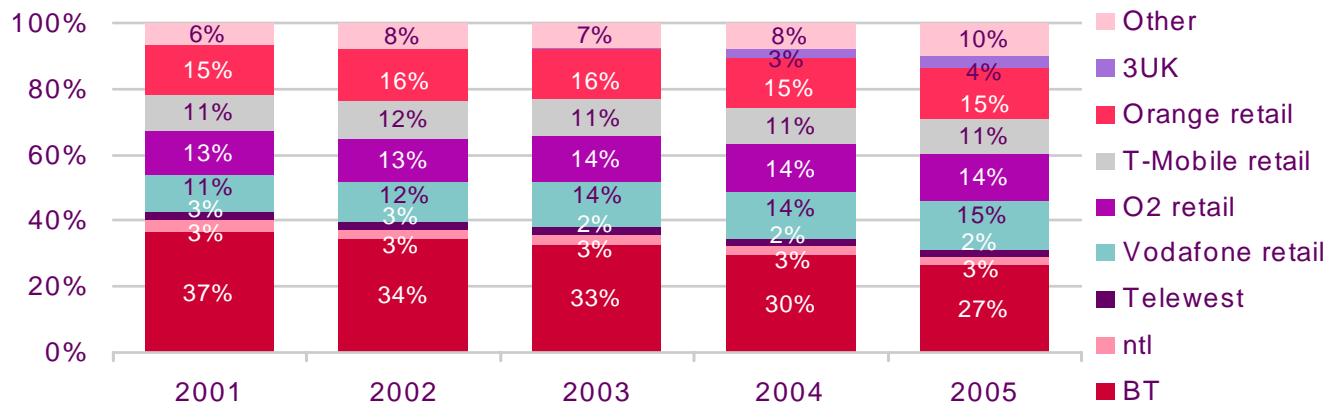
- 3.25 The data in Table 1 above demonstrates that while BT's share has been declining for the bulk of consumers in the UK, end-to-end connectivity can only be secured if BT purchases wholesale narrowband call termination services from other PECNs – as it has the most exchange line. In fixed telephony for example, BT supplies 81% of exchange lines¹⁴.

¹³ As defined at Section 57(2) of the Act.

¹⁴ This is based on data on Retail Exchange Lines. The number of exchange line is accounted for by adding the number of analogue lines plus the number of ISDN channels. One ISDN30 line equals 30

3.26 The data in Figure 4 below shows the total telecommunications connections, i.e. it adds mobile subscriptions to fixed lines. This shows that BT is still the largest provider of telecoms connections including both fixed and mobile, with the next largest providers being only just over half its size.

Figure 4: Summary of all fixed and mobile telecommunications connections broken down by provider¹⁵



3.27 Ofcom considers that as a result of these significant asymmetries between market participants, there is a risk that large PECNs may not have sufficient incentives to interconnect with all other PECNs. By virtue of BT's position as the largest provider of transit, its importance as an interconnection partner is further enhanced. Ofcom considers that this effectively means that every PECN is likely to have commercial incentives to interconnect with BT. Where BT interconnects with every PECN, end-to-end connectivity is ensured. As a result Ofcom considers that Option 4 removes the risk that end-to-end connectivity may not be provided.

3.28 Further, it follows from Ofcom's view on Option 3 that Ofcom considers it is not necessary nor proportionate for to ensure end-to-end connectivity to be provided that for an obligation is to be imposed on any other PECN. It should be noted in this context, that in Ofcom's view this is true for Kingston Communications as it is for other PECNs for the following reasons.

3.29 Kingston is a small network. According to the data contained in Kingston's Regulatory Financial Statements, Kingston has 229,637 exchange lines (including both digital and analogue) in the Hull area as of 31 March 2005. This includes 162,417 residential and 63,126 business users of PSTN services, and 788 residential users of digital ISDN services as well as 3,296 users of business ISDN services (ISDN 2 and ISDN30). Of the calls made to these exchange lines, Ofcom estimates that approximately one third of outgoing call minutes are on-net, and two-thirds of call minutes are off-net¹⁶. This means that for the largest part of its traffic, Kingston has to buy termination in order to provide a satisfactory service to its own customers. On this basis, Ofcom considers it unlikely that Kingston would have an incentive to

channels and one ISDN2 line equals two channels. The 81% are retail lines and therefore exclude Wholesale Leased Lines Access ('WLR'). At the wholesale level, BT's share is at 83%.

¹⁵ A mobile telecommunications connection is defined as one active subscription or pre-pay SIM card.

¹⁶ Source: Kingston Regulatory Financial Statements, March 2005, http://www.kcom.com/regulatory/docs/Ofcom_Statements_FINAL_12.pdf. This analysis is based on the volumes of call origination and termination on Kingston's SMP network and the revenues of internal and external sales for these services, and assumes that all call revenues are split evenly across minutes.

refuse to buy termination from another PECN. Furthermore, BT's role as a provider of transit means that Kingston is not able to refuse interconnection (it cannot tell where calls it transits via BT are terminated). The fact that Kingston has SMP in a number of markets in the Hull area, including call origination, calls termination, and exchange lines does not alter that analysis.

- 3.30 Ofcom also would emphasise in this context that – while the proposed condition would oblige BT to purchase termination from every other PECN so as to ensure end-to-end connectivity – it does not oblige BT to interconnect directly with every other PECN. BT may secure compliance with this condition through indirect connection.
- 3.31 As set out in the proposed condition at 1.1, any request for such purchase must be reasonable, and in writing. If BT is already providing end-to-end connectivity indirectly to a PECN, then a request for direct interconnection would not normally be reasonable. This is because the purpose of the obligation is to ensure end-to-end connectivity, not to determine the exact way in which it is achieved.
- 3.32 Ofcom is also proposing that BT is not obliged to purchase wholesale narrowband call termination services at any price, but to do so where requested by a PECN and where the terms and conditions offered by that PECN are reasonable. Whether a particular term or condition (including charge) is reasonable will depend on the particular circumstances relating to any decision not to purchase in the context of the need to ensure end-to-end connectivity and may lie within a broader range of outcomes than that which might be considered in the circumstances of SMP. In particular, as Ofcom has to ensure that any charges it imposes are proportionate, it is unlikely to set charges at a level set in the context of addressing a finding of SMP.

Effectiveness of end-to-end connectivity obligation

- 3.33 Additionally, Ofcom considers it appropriate to propose that when purchasing such wholesale narrowband call termination services, BT cannot unreasonably change, withdraw or restrict access to an applicable normal telephone number. This is specifically envisaged in Recital 6 of the Access Directive which states that:

“National regulatory authorities [...] may ensure end-to-end connectivity by imposing proportionate obligations on undertakings that control access to end-users. Control of means of access may entail ownership or control of the physical link to the end-user (either fixed or mobile), and/or the ability to change or withdraw the national number or numbers needed to access an end-user's network termination point.”

- 3.34 Therefore, in addition to the proposed Option 4 above, in order to ensure the effectiveness of any end-to-end connectivity obligation, Ofcom proposes to impose an obligation on BT that in purchasing the wholesale call termination services, it cannot after such purchase unreasonably change, withdraw or restrict access to an applicable normal telephone number. This is because for the end-to-end connectivity obligation to be effective, not only must wholesale narrowband (fixed and mobile voice and narrowband data) call termination services be purchased, but end-users also need to be able to access those numbers. Potentially it would be possible to circumvent the obligation to provide end-to-end connectivity if a provider purchases termination but then does not allow its customers access to the number ranges of the PECN supplying such termination services.

Question 1: Do you agree with Ofcom's view that Option 4 is necessary to ensure end-to-end connectivity, and represents the most proportionate way of securing such connectivity.

Section 4

Proposal and next steps

Proposed condition

- 4.1 As a result of the analysis contained in the impact assessment carried out in Section 3 of this document, Ofcom is proposing to introduce an access-related condition under Sections 73 and 74 of the Act.
- 4.2 The proposed access-related condition will apply to BT only, and will require BT:
- to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services from any PECN that reasonably requests in writing that BT purchases such services (proposed condition 1.1);
 - to ensure that the purchase of the wholesale narrowband (fixed and mobile voice and narrowband data) call termination services shall occur as soon as reasonably practicable and shall be on reasonable terms and conditions (including charges), and on such terms and conditions (including charges) as Ofcom may from time to time direct (proposed condition 1.2);
 - to ensure that after purchasing wholesale narrowband (fixed and mobile voice and narrowband data) call termination services, BT will not be able to unreasonably change, withdraw or restrict access to an applicable Normal Telephone Number (proposed condition 1.3); and
 - to comply with any direction Ofcom may make from time to time under this Condition (proposed condition 1.4).
- 4.3 Ofcom is proposing to use the definition of a Normal Telephone Number as set out in Section 57(2) of the Act because it more closely relates to the scope of the proposed access-related condition as addressed in the impact assessment. The definition of a Telephone Number set out in Section 56(5) of the Act is wider and includes numbers used for the purposes outside the scope of the proposed access-related condition, such as Carrier Pre-Selection codes, Number Portability Prefix Codes, etc.
- 4.4 In proposing this condition, Ofcom considers it is necessary to ensure end-to-end connectivity is available in the UK. As set out in the impact assessment, Ofcom's view it is sufficient and proportionate to do so by imposing an obligation on BT only. Ofcom believes that other PECNs will have a commercial incentive to provide end-to-end connectivity to their customers that should be sufficiently strong to ensure that they seek to purchase call termination and that no additional *ex ante* regulation is required. However, Ofcom would examine the case for proposing *ex ante* conditions on other PECNs should they not provide end-to-end connectivity.

Question 2: Do you agree with Ofcom's proposed condition?

Legal tests – Ofcom’s powers to impose such access-related conditions

Ofcom’s duties under the Communications Act 2003

Section 3 – Ofcom’s general duties

- 4.5 Section 3(1) of the Act sets out the principal duty of Ofcom, in carrying out its functions under the Act 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. Ofcom considers that its proposal to set the access-condition set out in the Schedule falls within the scope of Section 3 of the Act because among other things, and as previously discussed in paragraphs 3.25-3.34 above, Ofcom considers that it is necessary to set such a condition to ensure the end-users of the same or different providers are able to call each other.

Section 4 – European Community requirements for regulation

- 4.6 Section 4 of the Act requires Ofcom to act in accordance with the six European Community requirements for regulation. In summary these requirements are to:
- Promote competition in the provision of electronic communications networks and services, associated facilities and the supply of directories;
 - Contribute to the development of the European internal market;
 - Promote the interests of all persons who are citizens of the European Union;
 - Not favour one form of or means of providing electronic communications networks or services, i.e. to be technologically neutral;
 - Encourage the provision of network access and service interoperability for the purpose of securing;
 - Efficient and sustainable competition; and
 - The maximum benefit for customers of communications providers; and
 - Encourage compliance with certain standards in order to facilitate service interoperability and secure freedom of choice for the customers of communications providers.
- 4.7 For the reasons set out in paragraphs 3.25-3.34 above, and in particular, that it would encourage the provision of network access and service interoperability by ensuring that BT has to purchase wholesale narrowband (fixed and mobile voice and narrowband data) call termination services from PECN providers who wish it to do so, Ofcom considers that its proposed decision would meet these requirements.

Section 47 – test for setting or modifying conditions

- 4.8 As set out under Section 47(1) of the act, in setting a condition, Ofcom must be satisfied that the test set out under Section 47(2) has been met. The test is that the condition is:

- Objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
- Not unduly discriminatory against particular persons or against a particular description of persons;
- Proportionate to what it is intended to achieve; and
- Transparent in relation to what it is intended to achieve.

Objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates

4.9 The proposed access-related condition is objectively justifiable as without it, there is a risk that BT will not have sufficient incentives to ensure end-to-end connectivity. BT may not for example purchase termination from a new entrant. As a consequence end-users would not necessarily have the ability to communicate with each other.

Not unduly discriminatory against particular persons or against a particular description of persons

4.10 As mentioned in the analysis of Option 3 above, Ofcom considers that the cost of imposing an access-related condition on all PECNs would be disproportionate to ensure end-to-end connectivity. Once a PECN has secured an agreement to send calls to BT's network, they will in any event be in a position to send calls to all other networks (thereby securing end-to-end connectivity for their customers). This is due to BT's position in the provision of transit whereby BT buys termination on behalf of a large part of the industry in addition to buying termination for itself. It is unlikely that there are any commercial incentives on PECNs other than BT not to buy termination once BT is terminating calls on a particular network. This is due to among other things the role of BT as a provider of transit and the position that BT holds in the retail markets.

Proportionate to what it is intended to achieve

- 4.11 The proposed condition only obliges BT to provide the minimum necessary to ensure the end-to-end connectivity. It is proposed to apply only to wholesale call termination of fixed and mobile voice calls and narrowband data services which are those services covered by the Universal Service Directive. It also sets out that the terms and conditions be reasonable rather than seeking to impose a particular charge.
- 4.12 Ofcom considers that the term "reasonable terms and conditions (including charges)" should be interpreted in the context of the end-to-end connectivity obligation and the aims of that obligation. Consequently, the determination of whether a particular term or condition (including price) is reasonable in the context of this obligation may lie within a broader range than that which might be determined pursuant to an SMP condition. In particular, as Ofcom has to ensure that any charges it imposes are proportionate, it is unlikely to set charges at a level set in the context of addressing a finding of SMP.

Transparent in relation to what it is intended to achieve

4.13 Ofcom is satisfied that the proposed access-related conditions are transparent insofar as the nature and obligations are clearly set out in this document.

Section 73(2) of the Act

- 4.14 As previously set out above, Section 73(2) of the Act states that Ofcom may set access-related conditions as it appears to Ofcom appropriate for the purpose of securing:
- (a) efficiency on the part of communications providers and persons making associated facilities available;
 - (b) sustainable competition between them; and
 - (c) the greatest possible benefit for the end-users of public electronic communications services.
- 4.15 Ofcom considers that the above will be secured because the provision of end-to-end connectivity provides the greatest possible benefit by allowing all users to be able to call each other regardless of the network to which the called party is connected. This means that consumers can switch or take up new services from other providers with the confidence of knowing that they will still be able to call and be called by any other end-user in the UK. Such confidence should help secure sustainable competition as providers will be able to stay in the market as customers can use their services, and encourage providers to be efficient as possible so that their costs are lower than other providers, and so that they can compete effectively.

Oftel guidelines

- 4.16 Ofcom considers that the Oftel guidelines should be formally withdrawn at the point at which the proposed access-related condition comes into force.

Next steps

- 4.17 Ofcom is required to give interested parties an opportunity to comment on the proposals contained in this consultation document. Ofcom is also required to send its proposals to the European Commission, NRAs of every other Member State and the Secretary of State. Ofcom is consulting on these proposals until 15 August 2006.
- 4.18 When Ofcom has considered responses to this consultation, including any made by the European Commission, it will decide whether to give effect to its proposals, with or without modifications, by publishing a final statement.

Annex 1

Notification: Draft condition requiring end-to-end connectivity

NOTIFICATION UNDER SECTIONS 48(2) AND 73(2) OF THE COMMUNICATIONS ACT 2003

Proposals the setting of an access-related conditions, in relation to British Telecommunications plc (BT)

1. The Office of Communications (“OFCOM”), in accordance with Sections 48(2) and 73(2) of the Communications Act 2003 (the ‘Act’) hereby makes the following proposals for the setting of access-related conditions as set out in the Schedule to this Notification to apply to BT.
2. The effect of, and OFCOM’s reasons for making, the proposals to set the access-related conditions set out in the Schedule to this Notification are contained in the explanatory statement published with this Notification.
3. OFCOM considers that the proposed access-related conditions referred to in paragraph 2 above comply with the requirements of Sections 45 to 50, 73 to 77 of the Act as appropriate and relevant to each of the access-related conditions.
4. In making the proposals referred to in paragraph 1 of this Notification, Ofcom has considered and acted in accordance with its duties under Section 3 of the Act, and the six Community requirements in Section 4 of the Act.
5. Representations may be made to OFCOM about any of the proposals set out in this Notification and the accompanying explanatory statement by 15 August 2006.
6. Copies of this Notification and the accompanying explanatory statement have been sent to the Secretary of State for Trade and Industry in accordance with Section 50(1)(a) of the Act, the European Commission, and to the regulatory authorities of every other member State in accordance with Sections 50(3) of the Act.

Neil Buckley
Competition Policy Director

A person authorised by Ofcom under paragraph 18 of the Schedule to the Office of Communications Act 2002

14 July 2006

Schedule

Proposed Conditions applicable to British Telecommunications plc as a provider of end-to-end connectivity

Part 1: Application, definitions and interpretation relating to the Conditions in this Schedule

1. In this Schedule, except in so far as the context otherwise requires:

“**Act**” means the Communications Act 2003.

“**Connectivity Provider**” means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by Section 736 of the Companies Act 1985, as amended by the Companies Act 1989;

“**Narrowband Data**” means a service or connection supporting data transmission at speeds of up to 56kbit/s;

“**Normal Telephone Number**” means as defined by s 57(2) of the Act.

2. Except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them above otherwise any word or expression shall have the same meaning as it has in the Act
3. The Interpretation Act 1978 shall apply as if each of the conditions were an Act of Parliament.
4. For the purpose of interpreting the conditions set out in Part 2, the headings and titles shall be disregarded.

Part 2: The Conditions

Condition 1 – Requirement to secure end-to-end connectivity

1.1 Where a provider of a Public Electronic Communications Network reasonably requests in writing the Connectivity Provider to purchase wholesale narrowband call termination services (fixed and mobile voice, and Narrowband Data) provided by it, the Connectivity Provider shall purchase such services.

1.2 The purchase of such services shall occur as soon as reasonably practicable and shall be on reasonable terms and conditions (including charges) and on such terms and conditions (including charges) as Ofcom may from time to time direct.

1.3 In purchasing such services, the Connectivity Provider cannot after such purchase unreasonably change, withdraw or restrict access to an applicable Normal Telephone Number.

1.4 The Connectivity Provider shall comply with any direction Ofcom may make from time to time under this condition.

Annex 2

Responding to this consultation

How to respond

- A2.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 15 August 2006**.
- A2.2 Ofcom strongly prefers to receive responses using the online web form at http://www.ofcom.org.uk/consult/condocs/end_to_end/howtorespond/form, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response (see Annex 4), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.
- A2.3 For larger consultation responses – particularly those with supporting charts, tables or other data – please email chris.rowsell@ofcom.org.uk attaching your response in Microsoft Word format, together with a consultation response coversheet.
- A2.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.
- Chris Rowsell
4th Floor
Competition Group
Riverside House
2A Southwark Bridge Road
London SE1 9HA
- Fax: 020 7981 3333
- A2.5 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A2.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 5. It would also help if you can explain why you hold your views.

Further information

- A2.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Chris Rowsell on 020 7783 4176.

Confidentiality

- A2.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, www.ofcom.org.uk, ideally on receipt (when respondents confirm on their response coversheet that this is acceptable).

- A2.9 All comments will be treated as non-confidential unless respondents specify that part or all of the response is confidential and should not be disclosed. Please place any confidential parts of a response in a separate annex so that non-confidential parts may be published along with the respondent's identity.
- A2.10 Ofcom reserves its power to disclose any information it receives where this is required to facilitate the carrying out of its statutory functions.
- A2.11 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use in order to meet its legal requirements. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/about/accoun/disclaimer/>

Next steps

- A2.12 Following the end of the consultation period, Ofcom intends to publish a statement in September 2006.
- A2.13 Please note that you can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: http://www.ofcom.org.uk/static/subscribe/select_list.htm

Ofcom's consultation processes

- A2.14 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 3.
- A2.15 This consultation is shorter than Ofcom's standard 10 week period because in this case Ofcom considers it appropriate to consult for a month because it is an issue that needs to be looked at urgently as it is important that the legal position is clarified as soon as possible, in line with page 9 of Ofcom's guide to its consultation process.
- A2.16 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at consult@ofcom.org.uk . We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.
- A2.17 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Vicki Nash, Director Scotland, who is Ofcom's consultation champion:

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

Tel: 0141 229 7401
Fax: 0141 229 7433

Email vicki.nash@ofcom.org.uk

Annex 3

Ofcom's consultation principles

A3.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

Before the consultation

A3.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

During the consultation

A3.3 We will be clear about who we are consulting, why, on what questions and for how long.

A3.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened version for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A3.5 We will normally allow ten weeks for responses to consultations on issues of general interest.

A3.6 There will be a person within Ofcom who will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organizations interested in the outcome of our decisions. This individual (who we call the consultation champion) will also be the main person to contact with views on the way we run our consultations.

A3.7 If we are not able to follow one of these principles, we will explain why. This may be because a particular issue is urgent. If we need to reduce the amount of time we have set aside for a consultation, we will let those concerned know beforehand that this is a 'red flag consultation' which needs their urgent attention.

After the consultation

A3.8 We will look at each response carefully and with an open mind. We will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

Annex 4

Consultation response cover sheet

- A4.1 In the interests of transparency, we will publish all consultation responses in full on our website, www.ofcom.org.uk, unless a respondent specifies that all or part of their response is confidential. We will also refer to the contents of a response when explaining our decision, without disclosing the specific information that you wish to remain confidential.
- A4.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality by allowing you to state very clearly what you don't want to be published. We will keep your completed coversheets confidential.
- A4.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
- A4.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at www.ofcom.org.uk/consult/.
- A4.5 Please put any confidential parts of your response in a separate annex to your response, so that they are clearly identified. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your coversheet only so that we don't have to edit your response.

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

What do you want Ofcom to keep confidential?

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

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response. It can be published in full on Ofcom's website, unless otherwise specified on this cover sheet, and I authorise Ofcom to make use of the information in this response to meet its legal requirements. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

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

Name

Signed (if hard copy)

Annex 5

Consultation questions

Question 1: Do you agree with Ofcom's view that Option 4 is necessary to ensure end-to-end connectivity, and represents the most proportionate way of securing such connectivity?

Question 2: Do you agree with Ofcom's proposed condition?