

Review of the wholesale local access market

Identification and analysis of markets, determination of market power and setting of SMP conditions

Explanatory statement and notification

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Section 1

Summary

A new regulatory regime

- 1.1 A new regulatory framework for electronic communications networks and services entered into force on 25 July 2003. The framework is designed to create harmonised regulation across Europe and is aimed at reducing entry barriers and fostering prospects for effective competition to the benefit of consumers. The basis for the new regulatory framework is five EU Communications Directives.
- 1.2 The new Directives require national regulatory authorities (“NRAs”), such as Ofcom, to carry out reviews of competition in communications markets to ensure that regulation remains appropriate and proportionate in the light of changing market conditions. A series of market reviews has been carried out over the last 24 months and this review of the wholesale local access market has been one of the final reviews to be conducted.

Scope of this review

- 1.3 Ofcom has limited this review to setting out the overall framework for regulating the provision of wholesale local access services and co-location (by way of general remedies) and determining appropriate charges for specific services. Local loop unbundling (“LLU”) services fall within the wholesale local access market and co-location.
- 1.4 Ofcom considers that LLU process issues are dealt with more appropriately outside of this review. Ofcom has therefore appointed an independent Telecommunications Adjudicator (the “Adjudicator”) to work with industry to accelerate the implementation and delivery of fit for purpose and appropriately industrialised LLU products and processes. Progress of the work of the Adjudicator can be found at www.offta.org.uk. Ofcom will assist the Adjudicator and put in place formal obligations, if is appropriate and necessary for it to do so.

The previous consultations

- 1.5 Ofcom consulted on its proposals on market definition, findings of significant market power (“SMP”) and regulatory remedies on 13 May 2004 and 26 August 2004. Ofcom has considered all the responses to both consultations carefully and taken them into account in making its final decision.

Ofcom’s decision

- 1.6 This document sets out Ofcom’s final decision and concludes the wholesale local access market review.
- 1.7 Ofcom has identified the following markets for the purposes of assessing competition and imposing appropriate regulatory remedies:
 - wholesale local access in the UK excluding the Hull Area; and

- wholesale local access in the Hull Area.
- 1.8 These market definitions are unchanged from those previously consulted on. The full detail of these market definitions, and the approach taken by Ofcom in identifying these markets, are contained in Section 3.
- 1.9 Ofcom concludes that BT holds a position of SMP in the wholesale local access market in the UK excluding the Hull Area, and that Kingston holds a position of SMP in the wholesale local access market in the Hull Area. Ofcom has also identified co-location as an appropriate technical area for the purposes of imposing appropriate regulatory remedies.
- 1.10 Ofcom's market power assessment and its treatment of co-location are unchanged from the previous consultations. The full detail of Ofcom's market power assessment and its consideration of co-location are set out in Section 4.
- 1.11 Given its position of SMP, Ofcom has imposed the following SMP services conditions on BT in the wholesale local access market, and in respect of co-location, in the UK excluding the Hull Area:
- requirement to provide Network Access on reasonable request;
 - requirement not to unduly discriminate;
 - basis of charges (i.e. cost orientation);
 - requirement to publish a reference offer;
 - requirement to notify charges and terms and conditions;
 - requirement to notify technical information;
 - quality of service; and
 - requests for new Network Access.
- 1.12 Given its position of SMP, Ofcom has imposed the following SMP services conditions on Kingston in the wholesale local access market and in respect of co-location in the Hull Area:
- requirement to provide Network Access on reasonable request;
 - requirement not to unduly discriminate;
 - basis of charges (i.e. cost orientation);
 - requirement to publish a reference offer;
 - requirement to notify charges and terms and conditions; and
 - requirement to notify technical information.
- 1.13 In addition, Ofcom has imposed regulatory financial reporting obligations on BT in the wholesale local access market and in respect of co-location in the UK excluding the Hull Area.
- 1.14 Full details of the remedies imposed are contained in Sections 5, 6 and 10. Broadly speaking, the remedies are unchanged from those set out in the previous consultations, except for the following:
- from the May consultation, BT and Kingston are now able to make a reasonable charge for sending out paper copies of their reference offer;
 - from the August consultation, BT and Kingston do not have to publish details of traffic and network management in their reference offer;

- from the August consultation, the specific example of undue discrimination in Conditions FA2.2 and FB2.2 has been removed; and
- from the August consultation, the requirement to give Ofcom ten days prior notice of any amendment to a reference offer, the requirement to notify charges and terms and conditions and the requirement to notify technical information will not apply where such amendments or new Network Access is directed or determined by Ofcom.

Local loop unbundling

Aims of regulation

- 1.15 The provision of LLU services is aimed at stimulating competition in the provision of broadband services, in the absence of network build, and at enhancing competition in areas with only limited local access competition. Ofcom believes that over the next five years, the successful encouragement of greater competition based on infrastructure investment and combined with continued innovation in access technologies, could enable UK households to benefit from affordable and accessible broadband connections delivering video-quality bandwidth.
- 1.16 In the document entitled Strategic Review of Telecommunications Phase 2, 18 November 2004, Ofcom has set out its proposed regulatory approach in respect of broadband. It also sets out Ofcom's proposed key regulatory principles, one of which is to promote competition at the deepest levels of infrastructure where it will be effective and sustainable, which in areas of higher customer densities will mean competition based on LLU. Ofcom believes that current generation broadband is an important bridge to next generation broadband services and therefore competition in current generation broadband is an Ofcom priority.
- 1.17 The regulation imposed by this review and the work of the Adjudicator is intended to provide a positive environment for LLU to succeed in the UK. However, Ofcom recognises that further steps may be necessary to ensure that LLU is ultimately successful.

Specific LLU regulation

- 1.18 Further to the general regulatory remedies imposed on BT in the wholesale local access market and in respect of co-location, Ofcom has imposed a requirement on BT to provide the following LLU services:
- metallic path facilities / fully unbundled local loops;
 - shared metallic path facilities / shared access;
 - sub-loop unbundling;
 - internal tie cables;
 - external tie cables;
 - site access;
 - co-location;
 - co-mingling; and
 - ancillary services as may be reasonably necessary for the use of the services above.

1.19 In addition, Ofcom has imposed charge ceilings for a number of LLU services. Table 1.1 sets out the charge ceilings for fully unbundled and shared access connection and rental charges.

Table 1.1

Local Loop Unbundling Service	Type of Charge	(£)
Shared MPF	rental per annum	15.60
Shared MPF	connection	34.86
MPF Transfer	connection	34.86
MPF New Provide	connection	168.38

1.20 The charge ceilings have been adjusted from those consulted on in the August consultation to reflect more recent cost data and minor changes to Ofcom's approach. Full details of Ofcom's LLU remedies, including its approach to determining charge ceilings and the charge ceilings themselves, are contained in Sections 7, 8 and 9.

Discontinuation of existing regulation

1.21 As Ofcom has decided to impose remedies on BT in the wholesale local access market, Condition 83 of BT's licence issued under section 7 of the Telecommunications Act 1984 has been discontinued from 16 December 2004. Full details of the discontinuation of Condition 83 are contained in Section 11. The obligations imposed on BT and Kingston pursuant to Regulation 2887/2000/EC have also ceased to apply to BT and Kingston from the same date.

Section 2

Introduction

A new regulatory regime

- 2.1 A new regulatory framework for electronic communications networks and services entered into force on 25 July 2003. The framework is designed to create harmonised regulation across Europe and is aimed at reducing entry barriers and fostering prospects for effective competition to the benefit of consumers. The basis for the new regulatory framework is five EU Communications Directives:
- Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (the “Framework Directive”);
 - Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (the “Access and Interconnection Directive”);
 - Directive 2002/20/EC on the authorisation of electronic communications networks and services (the “Authorisation Directive”);
 - Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services , (the “Universal Service Directive”); and
 - Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (the “Privacy Directive”).
- 2.2 The Framework Directive provides the overall structure for the new regulatory regime and sets out fundamental rules and objectives which read across all five Directives. Article 8 of the Framework Directive sets out three key policy objectives which have been taken into account in the preparation of this statement, namely promotion of competition, development of the internal market and the promotion of the interests of the citizens of the European Union. The Authorisation Directive establishes a new system whereby any person will be generally authorised to provide electronic communications services and/or networks without prior approval. The general authorisation replaces the former licensing regime. The Universal Service Directive defines a basic set of services that must be provided to end-users. The Access and Interconnection Directive sets out the terms on which providers may access each others' networks and services with a view to providing publicly available electronic communications services. These four Directives were implemented in the UK on 25 July 2003 by the Communications Act 2003 (the “Act”). The Privacy Directive establishes users' rights with regard to the privacy of their communications. This Directive was implemented by Regulations which came into force on 11 December 2003.

Market reviews

- 2.3 The new Directives require national regulatory authorities (“NRAs”), such as Ofcom, to carry out reviews of competition in communications markets to ensure that regulation remains appropriate and proportionate in the light of changing market conditions. A series of market reviews has been carried out

over the last 24 months and this review of the wholesale local access market is one of the final reviews to be conducted.

2.4 Each market review has three stages:

- definition of the relevant market or markets;
- assessment of competition in each market, in particular whether any undertakings have significant market power (“SMP”) in a given market; and
- assessment of appropriate regulatory obligations where there has been a finding of SMP.

2.5 More detailed requirements and guidance concerning the conduct of market reviews are provided in the EU Communications Directives, the Act and in additional documents issued by the European Commission and Oftel. As required by the new regime, in conducting this review, Ofcom has taken the utmost account of the two European Commission documents discussed below.

Recommendation on relevant product and service markets

2.6 The European Commission has identified in its recommendation on relevant product and service markets, adopted on 11 February 2003 (the “Recommendation”), a set of product and service markets within the electronic communications sector, in which ex ante regulation may be warranted¹. The Recommendation seeks to promote harmonisation across the European Union by ensuring that the same markets are subject to a market analysis in all the EU Member States. However, NRAs are able to regulate markets that differ from those identified in the Recommendation where this is justified by national circumstances and where the Commission does not raise any objections. Accordingly, NRAs are to define relevant markets appropriate to national circumstances, provided that the utmost account is taken of the markets listed in the Recommendation.

Guidelines on market analysis and the assessment of SMP

2.7 The European Commission has also issued guidelines on market analysis and the assessment of SMP (the “SMP Guidelines”)². Ofcom is also required to take the utmost account of these guidelines when identifying a services market and when considering whether to make a market power determination under section 79 of the Act. Oftel produced additional guidelines on the criteria to assess effective competition, which can be found at http://www.ofcom.org.uk/static/archive/oftel/publications/about_oftel/2002/smp_q0802.htm.

¹ Commission Recommendation of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services.

² Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03).

Scope of this review

- 2.8 Ofcom has limited this review to setting out the overall framework for regulating the provision of wholesale local access services and co-location (by way of general remedies) and determining appropriate charges for specific services. Local loop unbundling (“LLU”) services fall within the wholesale local access market and co-location.
- 2.9 Ofcom considers that LLU process issues are dealt with more appropriately outside of this review. Ofcom has therefore appointed an independent Telecommunications Adjudicator (the “Adjudicator”) to work with industry to accelerate the implementation and delivery of fit for purpose and appropriately industrialised LLU products and processes. Progress of the work of the Adjudicator can be found at www.offta.org.uk. Ofcom will assist the Adjudicator and put in place formal obligations, if it is appropriate and necessary for it to do so.

The previous consultations

- 2.10 Ofcom consulted on its proposals on market definition, findings of SMP and regulatory remedies on 13 May 2004 and 26 August 2004. As required by Article 7 of the Framework Directive (as implemented by sections 50 and 81 of the Act), Ofcom’s proposals of 26 August 2004 were also sent to the European Commission and to other NRAs. Ofcom has considered all responses carefully and taken them into account in making its final decision. Where Ofcom’s final decision differs from its proposals in either of the previous consultations, these differences are identified at the start of each section.

Ofcom’s decision

- 2.11 This document sets out Ofcom’s final decision and concludes the wholesale local access market review. Annexes 1 and 2 contain the formal notification and directions that implement Ofcom’s decision.

Section 3

Market definition

- 3.1 Ofcom has considered the responses to the previous consultations carefully and has taken them into account in making its final decision. Ofcom's decision on market definition is unchanged from that set out in either of the previous consultations.

Introduction

- 3.2 Section 79(1) of the Act provides that before a market power determination may be considered, Ofcom must identify the markets which are, in its opinion, the ones which, in the circumstances of the United Kingdom, are the markets in relation to which it is appropriate to consider such a determination and to analyse that market. In identifying relevant markets, Ofcom is required to take the utmost account of all applicable guidelines and recommendations issued by the Commission.
- 3.3 Ofcom considers that the appropriate starting point for the wholesale local access market definition is to consider the wholesale supply of access to the metallic local loops which connect most end user premises to wider communication networks, enabling transmission and receipt of voice and data messages. Ofcom's assessment will consider, in particular, the extent to which alternative means of connection, such as those offered by the cable TV companies, represent effective substitutes for local access services provided over metallic loops.

Product description

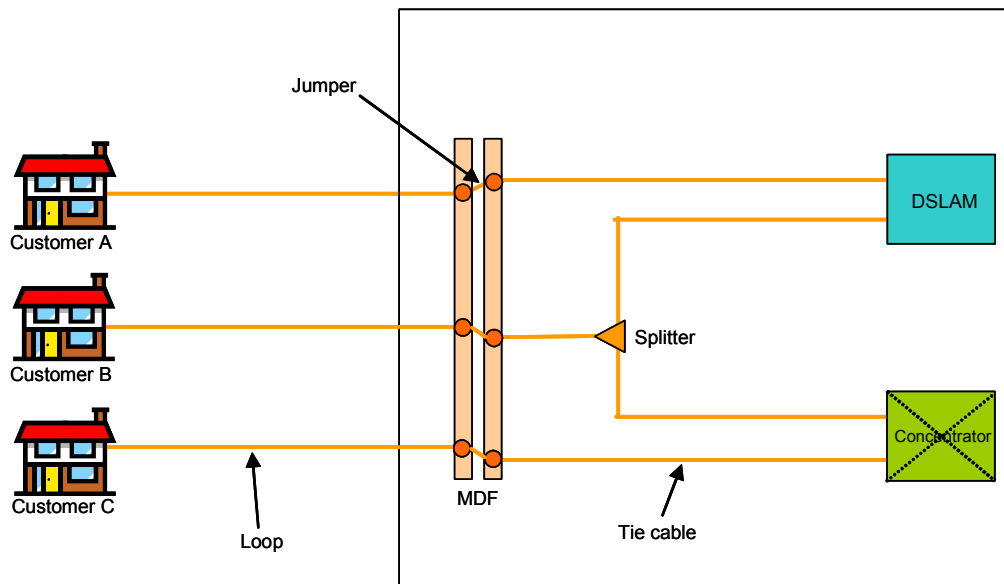
Metallic local loops

- 3.4 The fixed local access connection to the majority of end user premises is currently made using a twisted metallic pair, i.e. a local loop connection. This runs from the network termination point at an end user's premises to a main distribution frame ("MDF") at a MDF site. An individual loop is connected to an operator's equipment, such as a DSLAM or concentrator equipment, within the MDF site, using flexible jumpers and tie cables³. The combination of loop, jumpers and tie cables which completes a local access connection, together with any supplementary services associated with providing the connection, are the focus of this review.
- 3.5 Local access connections, comprising local loops, flexible jumpers, and tie cables, are illustrated in a range of configurations in Figure 3.1 below. For Customer A, the local access connection is made with DSLAM equipment that provides a broadband-only service. For Customer B, the local access

³ In a small number of cases, the metallic loop connection to an end user within BT's network ends at the PCP (roadside cabinet), with onward connection made over fibre. DSL-based broadband services cannot be provided over fibre.

connection supports both broadband and narrowband services⁴. For Customer C, the local access connection is used to support narrowband-only services, which is at present the most common type of connection.

Figure 3.1
Product description



Broadband and narrowband services

- 3.6 A local loop connection can support both broadband and narrowband services.
- 3.7 A broadband service is one which is always-on and which provides the end user with high data transfer speeds, notably when compared with dial-up connection. DSL technology allows broadband services to be provided over metallic local loops.
- 3.8 A distinction can be made between asymmetric and symmetric broadband services.
- 3.9 The key feature of any *asymmetric* broadband service is that the maximum data transfer speed obtainable in one direction is higher than the maximum data transfer speed available in the opposite direction. In most cases, asymmetric broadband is set up to allow faster downstream data transfer, reflecting the fact that most consumers value an ability to download information from the internet more than an upload capacity. BT currently offers ADSL products over its loops which provide download speeds of up to 2 Mbit/s, while LLU operators currently market products providing download speeds of up to 8 Mbit/s. Significantly, asymmetric DSL services allow simultaneous broadband (data) and narrowband (voice) communication,

⁴ This shared access arrangement is illustrated symbolically in Figure 3.1. In practice, a more complex arrangement of jumpers and tie-cables is typically used to establish a combined narrowband and broadband connection.

though, in practice, the high bandwidth ADSL services offered by LLU operators often operate over dedicated, fully unbundled loop connections.

- 3.10 *Symmetric* broadband provides data transfer to and from the end user at a rate which is the same in both directions. Such services may be used to provide symmetric internet access, and can be used to provide a range of business data services with leased line characteristics. BT currently offers symmetric DSL services up to a speed of 2 Mbit/s, while some LLU operators offer speeds of up to 4 Mbit/s. Narrowband services cannot be provided simultaneously over a metallic loop that is used to provide symmetric DSL broadband access.
- 3.11 While a broadband service is most often used to provide high-speed data communication, it can also be used to provide voice communication, via voice-over-broadband technologies.
- 3.12 Despite the growth of broadband use, most local access connections continue to be used to support narrowband services only. Narrowband services include voice telephony and relatively low speed dial-up data transfer. Simultaneous data and voice communication is not possible using a single narrowband-only connection.

Alternative local access connections

- 3.13 The UK cable TV companies, ntl and Telewest, have established cable connections to many end user premises within their service areas. These cable connections consist of so-called Siamese cables, which combine traditional twisted metallic pairs with a co-axial cable capable of supporting high bandwidth television and broadband delivery.
- 3.14 In principle, these cable connections are able to offer a number of options for supporting broadband and narrowband communication. For instance, broadband services could be provided either over the co-axial cable, as is currently the case, or, in theory, using DSL technology over the twisted metallic pairs.
- 3.15 A local access connection might also be provided using other means, such as a fibre connection direct to the end user's premises, a fixed wireless link between the end user's premises and the operator's equipment, or a mobile technology.

The market definition process

- 3.16 There are two dimensions to the definition of a relevant market: the relevant products to be included in the same market and the geographic extent of the market. Ofcom's approach to market definition follows that used by the UK competition authorities (see *Office of Fair Trading Market Definition Guideline*, OFT 403, March 1999), which is in line with the approaches adopted by the European Commission (as set out in its *Notice on the definition of the relevant market for the purposes of Community competition law*⁵) and US authorities.

⁵ OJ [1997] C372/5.

Pricing constraints

- 3.17 The purpose of the market definition exercise is to identify the relevant constraints on the price setting behaviour of firms. There are two main competitive constraints to consider, namely:
- the extent to which customers will substitute other services for those in question (demand-side substitution) in response to a price increase; and
 - the extent to which suppliers will switch, or expand, production to supply the relevant products or services (supply-side substitution) in response to a price increase.
- 3.18 A third factor that is sometimes an additional consideration is whether there exists common pricing constraints across customers, services or areas, such that they should be included within the same relevant market even if demand- and supply-side substitution are not present. Failure to consider the existence of a common pricing constraint could lead to unduly narrow markets being defined.

The SSNIP test

- 3.19 The concept of the ‘hypothetical monopolist’ or SSNIP test provides a useful tool to identify demand-side and supply-side substitutes which constrain pricing sufficiently.
- 3.20 A product or group of products is considered to constitute a separate market if a hypothetical monopoly supplier of that product group could profitably impose a small but significant, non-transitory increase in price (“SSNIP”). Conventionally, a 5% to 10% price increment is considered. If such a price rise would be unprofitable, because customers would switch to other products, or because suppliers of other products would begin to compete with the hypothetical monopolist, then the market definition should be expanded to include the substitute products.
- 3.21 A supplier response constitutes effective supply-side substitution only if it can be initiated quickly, and at low cost, by virtue of an existing position in the supply of other services. However, even if supply-side responses do not provide a sufficient constraint to inform market definition, they may nevertheless limit the exercise of market power. Such constraints are considered at the SMP assessment stage.
- 3.22 In applying the SSNIP test, it is usual to begin with a fairly narrow view of the relevant market and then expand that market to include effective substitutes.

Benchmark price

- 3.23 To implement the SSNIP methodology, it is first necessary to identify the relevant benchmark price, to which the hypothetical price increment is applied. For the purposes of the current exercise, the appropriate benchmark price is the competitive price.
- 3.24 As the European Commission states at paragraph 42 of its SMP guidelines, *“in principle, the ‘hypothetical monopolist test’ is relevant only with regard to products or services, the price of which is freely determined and not subject to regulation.”* If the benchmark price is above the competitive price level, then

this may result in an over-estimation of the scope for substitution, resulting in an excessively broad market definition. Conversely, if the benchmark price adopted is below the competitive price level then this may result in an overly narrow market definition.

- 3.25 The European Commission has also stated that its *“working assumption will be that current prevailing prices are set at competitive levels. If, however, a service or product is offered at a regulated, cost based price, then such price is presumed, in the absence of indications to the contrary, to be set at what would otherwise be a competitive level”*. In undertaking this market definition exercise, Ofcom has been mindful that some local access prices may not represent a good proxy for competitive price levels. Therefore, Ofcom has used in its SNIPP analysis the LLU charge ceilings as set out in Section 9, as a proxy for the competitive price.

Existing regulation

- 3.26 To undertake the market analysis without controlling for the impact of existing regulation in that market would also risk distortion, potentially undermining the basis for on-going regulatory intervention. Under the EU Directives, regulation which responds to market power can only be implemented where a finding of SMP is made. If SMP is eliminated by existing regulation, undertaking the market analysis with regulation in place would lead to a finding of no SMP. This would then imply that regulation should end, which in turn might allow the original SMP, and any adverse consequences arising from it, to persist. It is therefore important that Ofcom begins the market definition process by assuming an absence of regulation in the market under review.

Retail and wholesale markets

- 3.27 This review concerns the supply of services at the wholesale level. Moreover, the local access services under consideration are at the most upstream end of the value chain, and are generally used as inputs to other wholesale products such as wholesale broadband access or wholesale exchange line services.
- 3.28 However, in undertaking the relevant market definition exercise, it is informative first to consider competition at downstream levels, since demand for the relevant wholesale products is ultimately driven by downstream wholesale demand and ultimately by retail demand.
- 3.29 This approach is consistent with the Commission’s Recommendation. Recital 7 of the Recommendation states that the starting point for market definition is a characterisation of the retail market over a given time horizon, taking into account the possibilities of demand and supply-side substitution. The wholesale market is identified subsequent to this exercise being carried out in relation to the retail market. This approach is repeated at paragraph 3.1 of the Explanatory Memorandum accompanying the Recommendation.

Retail product market

Introduction

- 3.30 The local access products considered in this review are inherently wholesale-level products. Final customers do not purchase these products on a stand-alone basis. However, they represent a significant component of most retail services.
- 3.31 The demand for a local access connection is ultimately driven by the demand for the various communications services which are delivered over such a connection. A fixed line local access connection continues to be an integral element in the delivery of voice telephony, as well as data services, for most users. Indeed, the overwhelming majority of local loop connections continue to be used to provide voice and dial-up internet access only.
- 3.32 Nevertheless, the use of broadband continues to grow. There are now over 5.3 million lines, including cable lines, providing broadband internet access. These broadband connections are largely used to provide asymmetric broadband internet access. The extent to which local access is currently used to provide symmetric broadband internet access via SDSL technology is currently small. As such, it does not require further consideration here since, given the relative scale of this source of demand, it is unlikely to have a material impact on relevant market definition or market analysis.
- 3.33 Among the various retail market analyses undertaken by Ofcom, and previously by Oftel, the most relevant as far as this review of wholesale local access is concerned are those which have examined fixed narrowband exchange line services and, in order to inform the analysis of relevant wholesale markets in the review of wholesale broadband access, retail asymmetric broadband internet access.

Fixed narrowband exchange line markets

- 3.34 As noted above, the majority of local access connections are used by final customers to support narrowband services only. Indeed, in most cases where end users decide to take broadband services, they continue to take narrowband services over the same local loop and therefore the fundamental local access connection is provided as part of a narrowband exchange line service. While additional flexible jumpers and tie-cables are required to upgrade the loop-based local access connection to enable broadband, the local loop between the end user premises and the MDF is typically the same as used to provide narrowband exchange line services only.
- 3.35 A relevant exchange line product comprises:
- the local loop or analogous local access connection;
 - the equipment connected to either end of the local loop (such as the network termination equipment (NTE), the remote concentrator and line cards); and
 - a range of supplementary services associated with that loop (such as call waiting and “1471” service).

- 3.36 A local access connection, which is the subject of this review, is therefore a substantial component part of any retail exchange line services product.
- 3.37 In its analysis of the markets for fixed narrowband retail services, Oftel identified a number of distinct retail product markets for exchange line services, namely:
- residential analogue exchange line services;
 - residential ISDN2 exchange line services;
 - business analogue exchange line services;
 - business ISDN2 exchange line services; and
 - ISDN30 exchange line services⁶.
- 3.38 The majority of exchange line services are analogue or ISDN2. Local loops provide the local access component of most of the more than 30 million analogue and ISDN lines in service, though cable does account for a significant number of analogue exchange lines too. Only a very small percentage (substantially less than 1%) of lines are used for ISDN30 services. Furthermore, a significant number of these are provided over fibre. As such, ISDN30 accounts for a negligible fraction of overall local loop demand.
- 3.39 The fixed narrowband retail services market review identified retail exchange line services as distinct, in market definition terms, from:
- mobile access;
 - broadband internet access; and
 - leased lines.
- 3.40 The narrowband review also concluded that it was appropriate to define separate exchange line services markets for residential and business users on the grounds that:
- business and residential users typically require a different range of exchange line services;
 - it is possible to identify residential and business users and sustain prices which discriminate between them; and
 - operators serving residential and business customers may be expected to be located in different areas.
- 3.41 Separate markets were identified for analogue, ISDN2 and ISDN30 on the basis of the different functionalities provided over each and price differentials.
- 3.42 For each of the exchange line product markets identified, separate geographic markets were defined to encompass:
- the UK excluding the Hull Area; and
 - the Hull Area.
- 3.43 The basis for this conclusion was the observation that BT sets uniform prices for the relevant services throughout the UK excluding the Hull Area, either as

⁶ See Oftel's *Fixed Narrowband Retail Services Market: Final Explanatory Statement and Notification*, 28 November 2003.

a commercial decision or because it is required to do so under universal service obligations. This ensures that the effect of competitive pressures in one area is spread throughout the UK despite the limited opportunities for demand-side or supply-side substitution between local areas. The Hull Area is not subject to this constraint, since BT does not operate in this area. Similar arguments apply to Kingston in the Hull Area.

Asymmetric broadband internet access

3.44 The retail market for asymmetric broadband internet access was considered as part of the wholesale broadband access market review, in order to inform the relevant wholesale level analysis⁷. The distinctive features of asymmetric broadband internet access services are that they:

- are always on, i.e. they do not require dial-up;
- allow simultaneous use of voice and data services; and
- have faster downstream speeds than dial-up services.

3.45 The provision of asymmetric broadband internet access requires a local access connection to the end user's premises. In almost all cases, that local access connection is made using a local loop, supporting DSL broadband technology, or a cable connection. As noted above, in most cases the connection itself will be provided already as part of an exchange line service, though some additional work may be required to enable broadband services.

3.46 In analysing asymmetric broadband internet access for the wholesale broadband access market review, Ofcom considered that the relevant market for these services was separate from the markets for:

- narrowband internet access;
- symmetric broadband internet access; and
- mobile internet access.

3.47 Ofcom also considered that, on balance, the market would encompass the provision of asymmetric broadband internet access to both residential and business customers. While recognising that there are currently differences in the services provided to these customer groups, Ofcom identified grounds for believing that this distinction might become blurred. Ofcom believed that, a forward-looking approach suggested a broader market definition.

3.48 Ofcom's analysis of the geographic scope of the market identified a common pricing constraint across the UK excluding the Hull Area, suggesting a single market, though one displaying local characteristics. Analogous arguments suggested a distinct, single market for the Hull Area.

Wholesale product market

Introduction

3.49 In general, it is not clear whether suppliers of local loop connections, or potential substitutes, would actually make local access products available at

⁷ *Review of the Wholesale Broadband Access Markets: Final Explanatory Statement and Notification*, 13 May 2004.

the wholesale level in the absence of regulation. Although BT provides a wholesale local access product to other operators, this is a requirement of existing regulation. It is unclear whether it would choose to do so in the absence of such regulation. The cable operators, for instance, do not provide such services on a stand-alone basis, choosing instead to offer a vertically integrated product only.

- 3.50 The relevant downstream wholesale markets, which provide the link between the local access connections themselves and the retail markets described above, are those for wholesale exchange line services and wholesale broadband access. It is appropriate to consider the wholesale markets that lie immediately downstream of wholesale local access, since demand for wholesale local access connections will be mediated through the demand for these wholesale products.

Fixed narrowband wholesale exchange line services markets

- 3.51 Wholesale exchange line markets analogous to those identified at a retail level were defined as part of Oftel's analysis of fixed narrowband wholesale services markets⁸. Specifically, distinct product markets were identified for:

- wholesale residential analogue exchange line services;
- wholesale residential ISDN2 exchange line services;
- wholesale business analogue exchange line services;
- wholesale business ISDN2 exchange line services; and
- wholesale ISDN30 exchange line services

- 3.52 The arguments set out for the retail level analysis were deemed to apply equally at the wholesale level too.

- 3.53 Oftel also concluded that, for each of the product markets identified, separate geographic markets should be defined for:

- the UK excluding the Hull Area; and
- the Hull Area.

Wholesale broadband access markets

- 3.54 Asymmetric broadband origination extends from the end user's premises to the first suitable point of interconnection with the core network. Asymmetric broadband origination therefore represents a more extensive segment of the vertical supply chain than local access alone, including backhaul. However, a local access connection that is capable of supporting asymmetric broadband services is an essential component of asymmetric broadband origination.

- 3.55 Ofcom has identified a distinct relevant wholesale product market for asymmetric broadband origination. This market encompasses loop-based (ADSL) and cable-based broadband origination services, though the relevant constraint may be indirect rather than direct, since the cable operators do not currently offer such services.

⁸ *Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets*, 28 November 2003

- 3.56 The wholesale market defined includes services for both residential and business customers, as Ofcom considered that, irrespective of any retail market distinctions, a common origination input was used.
- 3.57 With regard to the geographic dimension of relevant market definition, Ofcom noted that BT chose, on the basis of its own commercial judgement, to set nationally uniform prices, suggesting a common constraint operated across its service area. This constraint did not extend to the Hull Area. Ofcom therefore concluded that separate geographic markets should be defined for:
- the UK excluding the Hull Area; and
 - the Hull Area.

Wholesale local access product market

- 3.58 As noted above, the wholesale local access services under review here are upstream from the wholesale exchange line and wholesale broadband access markets considered above.
- 3.59 It is appropriate to begin this market definition exercise by hypothesising a relatively narrow wholesale local access product market, and then considering whether this should be broadened. This analysis therefore begins by asking whether a distinct wholesale market exists for loop-based local access connections only. The majority of connections to end user premises involve such loops.

Local access substitutes

- 3.60 There are a number of candidate substitutes for local loops in the provision of wholesale local access. The most plausible of these are:
- cable;
 - fibre;
 - fixed wireless; and
 - mobile.
- 3.61 Each of these possibilities is considered in turn below.

Cable

- 3.62 The Siamese cable connections used by the cable TV operators enable them to provide simultaneous narrowband and broadband local access connections to end user premises. Once a connection is made, it is useful for both types of application.
- 3.63 However, the cable operators have not provided wholesale local access as a stand-alone product, though they do provide intermediate level products to support the services offered by a number of ISPs. For example, some of AOL's broadband offerings are provided over ntl's cable infrastructure.
- 3.64 Nevertheless, even if it is assumed that this situation will endure, this need not necessarily imply that cable-based local access does not provide an effective constraint on the wholesale pricing of loop-based local access. Where cable-based and loop-based downstream products that depend on

local access are effective substitutes, indirect substitution may constrain the pricing conduct of a hypothetical monopoly wholesale supplier of loop-based local access.

- 3.65 In practice, as noted already, most retail customers who purchase a loop-based connection do so as part of a loop-based exchange line service, even where this is adjusted to provide broadband services too. Consequently, most purchases of wholesale local access will be made by providers of wholesale exchange line services. Analysis of the exchange line markets is therefore particularly relevant to the analysis of the wholesale local access market.
- 3.66 As noted already, Oftel has defined a number of relevant residential and business exchange line markets. Most loops are currently used to provide residential analogue exchange line services. As also noted, an exchange line product comprises: (i) the local loop or analogous local access connection; (ii) the equipment connected to either end of the local loop; and (iii) a number of supplementary services associated with that loop.
- 3.67 Local access is therefore a substantial component part of the exchange line services product identified above. The difference between a local access service and a basic exchange line service is comparatively small, as are the costs associated with the additional elements that make up the exchange line service. Moreover, it is straightforward for these elements to be stripped away to leave a basic connection product.
- 3.68 The basis for defining (retail and wholesale) exchange line service markets that encompass cable-based and loop-based products, as was done in the relevant Oftel market reviews, is that the profitability of a 5% to 10% increase in loop-based services alone would be undermined by customers switching to cable-based services. In other words, loop-based and cable-based exchange line products, which are little more than local access connections, are substitutes.
- 3.69 To the extent that any increase in wholesale loop-based access prices would be passed through to loop-based exchange line service prices, this could be expected to reduce retail demand for those services and therefore reduce wholesale demand for loop-based access. If sufficient switching of retail demand away from loop-based products materialised, then it would undermine the profitability of the initial wholesale level price increase (SSNIP). In this case, a broader wholesale local access market definition would be appropriate.
- 3.70 The extent to which such an indirect substitution effect would effectively undermine a hypothetical price increase for wholesale loop-based local access is affected by:
- the degree to which the wholesale SSNIP would be passed through to retail customers by the relevant service provider; and
 - whether the scale of the resulting reduction in (derived) wholesale demand would be sufficient to render the original wholesale price increase unprofitable.
- 3.71 Ofcom believes that, since local access is a substantial component of an exchange line product, any SSNIP for wholesale loop-based local access would be substantially passed through to the prices for retail exchange line

services under competitive conditions. Under those conditions, the wholesale local access charge could be expected to account for a very substantial portion of the costs of any competitive exchange line service. Faced with a 5% to 10% increase in the wholesale charge, a retailer would need to pass on a substantial portion of the price increase in order to cover its costs. A profit maximising retailer could therefore be expected to pass through in large part the original increase in the wholesale charge.

- 3.72 Given the scope for substitution between cable-based and loop-based services at the retail level, as identified in the retail product market analysis above, such pass-through could be expected to lead to a significant switch in retail demand away from the loop-based products. Ofcom is of the view that, overall, the extent of the resulting reduction in derived demand for loop-based access at the wholesale level would be sufficient to render the original wholesale price increase unprofitable. This suggests that the market for loop-based wholesale local access products should be expanded to include cable-based alternatives.
- 3.73 An alternative way of considering whether cable-based and loop-based wholesale local access are in the same market would be to focus on the relevance of a direct constraint at the wholesale level. In principle, the cable operators could offer access to the metallic loop component of the Siamese cables, which would enable other operators to provide narrowband and broadband services to specific end users. In a competitive market, the cable operators' upstream and retail divisions could be expected to each earn a 'normal' return. If the opportunity arose for the upstream divisions to make additional returns by extending the services offered to accommodate wholesale customers switching away from loop-based wholesale local access products, then it is possible that they would do so.
- 3.74 Nevertheless, the possibility of using cable-based local access as an alternative to loop-based local access depends on an ability to gain practical and economic access to the cable connections and to install the equipment required to provide services.
- 3.75 The provision of DSL-based broadband services over the cable networks would require a relatively extensive and disaggregated deployment of equipment, since the metallic pair components of the 'Siamese' connections to end users' premises are aggregated and transferred to fibre at a relatively local level. Consequently, any DSL equipment could be used to provide services to a comparatively small number of end users only. It would also have to be combined with an extensive backhaul solution too.
- 3.76 Given current technologies, the implications for the scale of investment required, and the need to obtain the facilities required to operate the required equipment, it therefore appears unlikely that access to the twisted copper pair component of the cable infrastructure would provide an effective substitute for BT's loop-based access products, even if it were available.
- 3.77 Offering disaggregated connection to individual end users at the cable head-ends, where the cable operators' own broadband equipment is located, would not appear to be easily done. However, the cable operators could offer a wholesale interconnection product at this point and it is possible that they would do so under competitive conditions. Based on the evidence set out in the related narrowband and broadband market reviews, in particular the

definition of wholesale exchange line and asymmetric broadband origination markets which include cable products, Ofcom believes that such products would compete effectively with loop-based alternatives.

- 3.78 An increase in the price of loop-based wholesale local access above the competitive level would then be likely to induce a significant volume of demand to switch to cable-based wholesale alternatives. Again, this suggests that the market for loop-based wholesale local access products should be expanded to include cable-based alternatives.
- 3.79 Ofcom's conclusion is therefore that the wholesale market for local access should be broadened to include both loop-based and cable-based local access products.
- 3.80 In any case, even supposing that the constraints provided by both the substitution mechanisms described above were ineffective, and that it was appropriate to define a narrow wholesale market for loop-based local access only, this could only affect the SMP conclusions if BT was found not to hold a position of SMP in the broader market. If, however, BT has SMP under the broader market definition, this conclusion would only be strengthened by a narrowing of the wholesale market definition to include loop-based local access only. Similar reasoning applies to Kingston within the Hull Area.

Fibre

- 3.81 In some instances, local access to communications services is provided to business end users by means of fibre connections, often as the basis of a leased line service. Such connections are capable of supporting narrowband and broadband services, though not DSL-based technology, which operates over metallic connections. This raises the possibility that fibre might be used in place of local loops or cable connections to provide local access, which might imply fibre-based local access is part of the same relevant wholesale market as loop-based and cable-based local access.
- 3.82 In practice, residential premises are not connected to fibre⁹. Moreover, even for business users, the number of applications where loop-based and fibre-based local access are deployed as alternatives is very small¹⁰. Since the

⁹ As noted above, there are some BT residential customers for whom the connection to the local exchange is transferred to fibre at an intermediate point. Moreover, the connections between end users' premises and a cable operator's equipment at the cable head end are transferred to fibre at an intermediate point. In addition, Ofcom notes that BT is trialling 'fibre to the home'. However, the number of premises included in the trial is limited. Ofcom does not consider that fibre to the home will be prevalent within the timescale of this market review. However, this may be a relevant factor for future market reviews.

¹⁰ Loop-based symmetric DSL ("SDSL") services and fibre-based leased line services may be regarded as substitutes in the provision of some symmetric broadband services, essentially for business use. However, the proportion of loops for which this is the case is very small. Ofcom understands that the take-up of SDSL service is currently extremely limited, although BT plans to extend the coverage of its SDSL services. Moreover, in the context of the overall costs of such relatively high value services, a 5% to 10% increase in loop charges is unlikely to lead to a substantial switch in demand. BT has recently announced the delivery of symmetric broadband services under the Broadband Advanced brand. Prices begin at a connection charge of £595 (including the installation of a new loop connection) and a rental

cost of the equipment required to utilise fibre, typically over £1,000, is substantially higher than for a loop-based connection, fibre is used only by a relatively small number of end users.

- 3.83 Moreover, even where fibre infrastructure exists in the vicinity of end user premises, there are unlikely to be enough fibres available to replace loop-based connections to even a small fraction of residential or business premises, unless a significant investment in local multiplexer equipment were made. Furthermore, fibre does not exist in the vicinity of many residential premises currently served by loop-based or cable-based connections.
- 3.84 Consequently, Ofcom believes it is reasonable to conclude that a 5%-10% increase in the wholesale price of loop-based and cable-based local access would not induce a significant switch to fibre-based local access provision because demand from retail customers would not switch, given the costs incurred in doing so, even if the increase in loop-prices was fully passed-through.
- 3.85 Ofcom has therefore concluded that fibre-based access does not currently constrain the pricing of loop-based and cable-based local access, and therefore should be excluded from the relevant wholesale product market. Moreover, Ofcom does not believe that this situation will change appreciably over the 2 to 3 year horizon relevant to this review.

Fixed wireless

- 3.86 The availability of fixed wireless local access connections offers three distinct substitution possibilities which could constrain increases in the wholesale pricing of loop-based and cable-based local access. Specifically:
- operators with locally-positioned equipment could use fixed wireless links directly in place of loops or cable to provide connections with end users;
 - downstream retailers, such as ISPs, might switch their purchases of wholesale service packages which include local access from loop or cable providers to fixed wireless operators; or
 - as a result of the impact of wholesale loop price increases on retail prices, end users may switch their retail demand to fixed wireless local access.
- 3.87 However, in the absence of a willingness or ability to switch to fixed wireless technology on the part of a sufficient number of retail customers, an increase in the wholesale price for loop-based access would not induce a significant reduction in demand for such access.
- 3.88 Where end user premises are located within the catchment area of a fixed wireless network, and end users have the appropriate aerial equipment installed, they could obtain broadband access via a wireless connection in place of line-based local access.
- 3.89 In practice, both roll-out and take-up of fixed wireless have been very limited to date. The proportion of the UK population that has access to a wireless

charge of £170 per month for a 500 kbit/s service. LLU operator Easynet advertises symmetric broadband from £149 per month, for example.

network stands at about 12%. Furthermore, Oftel estimates that there are only approximately 2,500 fixed wireless broadband connections in total¹¹. In itself, this suggests that the current scope for substituting fixed wireless based local access for line-based local access is unlikely to constrain the pricing of the latter.

- 3.90 Moreover, the charges for installing the required equipment at end users' premises are currently relatively substantial when compared to the charges for providing a broadband service using DSL or cable modem technology¹².
- 3.91 On the basis of this evidence, it does not appear to Ofcom that fixed wireless can currently be regarded as an effective substitute for loop-based or cable-based local access. Ofcom's conclusion is therefore that fixed wireless local access is not part of the relevant market under consideration in this review.
- 3.92 Ofcom notes that the costs of providing fixed wireless technology have fallen significantly in recent years. Moreover, there appears potential scope for fixed wireless to exploit developments in low cost WLAN or Wi-Max technology, raising the possibility of greater convergence between fixed line and wireless options in the future. While this potential is unrealised at present, it does not provide a relevant constraint on line-based local access prices. Ofcom does not believe that such developments will materialise on a sufficient scale and with sufficient rapidity to affect wholesale market definition for the purposes of the current review. Nevertheless, over the longer term, fixed wireless may develop into a credible and effective alternative to fixed line access, and Ofcom will continue to monitor such developments.
- 3.93 Further, in phase 2 of its strategic review of telecommunications¹³, Ofcom has set out its view that fixed wireless technologies are not mature and/or their business plans are not yet sufficiently proven to attract the funding for mass roll-out. Ofcom considers that many fixed wireless access providers are likely to serve only particular consumer segments in the short to medium term.

Mobile

- 3.94 In principle, the use of mobile technology can provide a technical alternative to fixed local access, though mobile functionality is currently more limited. Substitution could occur directly, with a mobile connection replacing the fixed link between the end user and an operator's local equipment (e.g. a DSLAM at an MDF site) similar to fixed wireless access, or indirectly, with downstream mobile voice and data services substituting for similar services provided over fixed networks.
- 3.95 The downstream substitutability of fixed and mobile services at a wholesale level has been considered in the market reviews covering wholesale fixed narrowband services, wholesale broadband access, and mobile access and

¹¹ Ofcom Market Intelligence data.

¹² The DTI's *Achieve Best Practice in Your Business: Broadband* guideline, for instance, compares estimates of connection charges for wireless technologies in the range £200 to £400 to typical ADSL and cable modem connection charges of £50 and £30 respectively.

¹³ *Strategic Review of Telecommunications Phase 2*, 18 November 2004

call origination services undertaken by Oftel and Ofcom. Those reviews have concluded that mobile and fixed services are not in the same markets. In other words, the profitability of a 5% to 10% increase in the price(s) of the relevant wholesale fixed service would not be defeated by substitution to mobile services. Ofcom similarly believes that the wholesale provision of mobile local access services would not constrain the profitability of a 5% to 10% increase in wholesale fixed local access prices. Moreover, Ofcom does not believe that this conclusion will change appreciably over the 2 to 3 year period relevant to this review.

- 3.96 Ofcom's conclusion is therefore that mobile local access is not part of the same relevant wholesale market as loop-based and cable-based local access provision.

Analogue and ISDN lines

- 3.97 The differences between analogue and ISDN lines (and private circuit local ends where these are delivered over copper) are concentrated in the equipment connected to either end of the local loop and in the supplementary services supplied. At the wholesale local access level, that is, in the local loop or analogous local access connection itself, there is no significant difference. Therefore Ofcom believes it is appropriate to define a single market for wholesale local access including lines which are used for analogue, ISDN and private circuit local ends.

Residential and business

- 3.98 Ofcom believes that there are plausible arguments both for and against defining separate wholesale local access product markets for business and residential use.
- 3.99 On the one hand, the loop and cable connections used for residential applications are essentially identical to those used for business use. In this respect, provision of the local access product is different to provision of exchange line services, where business and residential customers might be expected to have different demands for supplementary services.
- 3.100 On the other hand, the provision of local access is, by definition, an inherently local activity. Therefore, to the extent that business and residential customers are located in distinct areas, an operator serving business customers *might* not have infrastructure in place at the right locations to be able to serve a sufficient proportion of residential customers to constrain any price increase. A similar argument could apply to a residential operator's ability to serve business customers.
- 3.101 Ofcom's view is that, on balance, it is appropriate to define a single wholesale local access market for supply to both residential and business customers. In practice, Ofcom does not believe that the choice between a single and separate residential and business markets would affect the overall conclusions of its market analysis. The arguments set out in the sub-sections above apply more-or-less equally to both business and residential use. Moreover, the choice of market definition would not affect the conclusions of the market power assessment set out in Section 4.

Responses to the May consultation

- 3.102 BT disagreed with the methodology that Ofcom used to define the market. However, most of BT's comments seemed to be a reiteration of points which it made in response to earlier reviews of other markets. BT did not propose any clear alternative market definition to that proposed. Other respondents generally supported Ofcom's approach and conclusions.
- 3.103 BT argued that, in general, products in downstream markets might be associated with numerous substitutable upstream wholesale inputs and that taking account of this might result in a broader market definition at the downstream level. It also questioned whether a market for "access" would exist absent regulation, although it noted the inclusion of such a market in the Commission's Recommendation.
- 3.104 BT also commented on Ofcom's application of the hypothetical monopolist test. BT argued that Ofcom had carried out simple pairwise tests of copper versus alternatives such as cable, mobile and fibre, whereas a better approach would have been to progressively broaden the market by adding further products until a hypothetical monopolist supplier of the group of products could sustain a SSNIP.
- 3.105 BT considered that Ofcom should have tested whether cable was constrained by copper (in addition to testing whether copper is constrained by cable) on the basis that cable operated in a smaller area than the national area in which BT operated. BT also commented that Ofcom's approach was "all or nothing", in that the competitive effect of all products deemed to be in the market was considered equal and no weight was given to any competitive constraint exercised by products held to be outside the market.
- 3.106 UKCTA commented that if and when BT rolls-out fibre to the home, this should be included within the product market definition.
- 3.107 Wanadoo did not agree that cable was an effective constraint on copper loops and, as such, considered that cable should be excluded from the market definition. In particular, Wanadoo disagreed with the approach of defining the wholesale market after first defining the retail market, as this led to the definition of an artificially broad market. Wanadoo considered that, by arguing that downstream products exerted competitive pressures on upstream products, this meant that upstream and downstream products were in the same market.
- 3.108 Wanadoo argued that cable was not physically capable of being unbundled and, even if it was, there was no evidence that cable operators would offer an unbundled product in the market. Moreover, Wanadoo was not aware of any vertically integrated operator voluntarily providing unbundled network access.
- 3.109 Wanadoo did not agree with Ofcom's analysis that cable and copper access networks were substitutes, through indirect substitution downstream. Wanadoo considered that the concept of indirect substitution was not widely applied in competition law. Wanadoo argued that, even if the application of derived demand approach was appropriate, Ofcom's application of the approach was flawed, especially with regard to the evidence showing that cable access was a substitute for copper access in downstream markets. In addition, Wanadoo considered that the further the distance between the

upstream and downstream markets, the less likely that the downstream products would be substitutes.

- 3.110 Wanadoo considered that the correct approach was to analyse substitution between products within the relevant market, which required the competing networks to be capable of being unbundled.
- 3.111 Easynet disagreed that residential use and business use of the local loop were in a single market. They argued that business users demanded significantly different services than residential consumers.

Ofcom response

- 3.112 Ofcom does not accept BT's contention that its approach to market definition is incorrect. Ofcom has applied this approach consistently across all of its market reviews. Ofcom recognises that BT has signalled its disagreement to the application of this methodology to some of the other reviews that have been undertaken. However, the approach has in general been supported by other respondents. Ofcom also notes that BT has not proposed an alternative market definition, nor has it provided the evidence and reasoning to support such an alternative market definition.
- 3.113 Ofcom has consistently set out its arguments for defining a broadband market separate from unmetered narrowband and for defining the geographic market as national. As BT noted, Ofcom has already replied to points made in response to earlier reviews.
- 3.114 Ofcom believes that its application of the hypothetical monopolist test in this case is appropriate. Moreover, it does not believe that any of the methodologies suggested by BT would have resulted in a broader product market being defined. Ofcom believes that the evidence does not suggest that mobile access should be regarded as part of the same market as fixed access. Further, fixed wireless access is fairly insignificant and BT itself has accepted that fibre should not be included.
- 3.115 In addition, Ofcom disagrees that it is appropriate to consider the limited geographic reach of cable whilst defining the product market. This is a question of geographic market definition and Ofcom's reasons for believing the relevant market to be national are set out below.
- 3.116 Ofcom agrees that market definition should be regarded as a means to an end and does not agree that its approach is "all or nothing", as suggested by BT. Nonetheless, it is clear that the competitive impact of products which are found not to be part of the relevant market must be more limited than those which are inside it. BT did not provide an example of a product "just outside" the market, which exercises a competitive constraint that has not been taken into account. In the present case, Ofcom does not believe that there is such a constraint but, to the extent that there is an impact, it would be reflected in indicators such as prices and profits of products in the market.
- 3.117 While at some time in the future fibre to the home may be a substitute for copper and cable access, Ofcom does not believe that this will occur to any significant extent within the timescales of this review.

- 3.118 Ofcom disagrees with Wanadoo's comments. Ofcom has consistently throughout all of the market reviews undertaken under the new regulatory framework used the methodology of derived demand i.e. first defining the retail market and then the wholesale market, in order to define the relevant upstream markets. This is consistent with the Commission's guidelines on market definition. Demand for wholesale local access is derived from demand for access at the retail level. Therefore, it is appropriate to first identify the retail access market and identify the substitutes within that market. The retail market analysis concludes that copper access is constrained by cable access and that these access technologies are in the same market at the retail level.
- 3.119 The principle that market power in one market (for example, that for a secondary product such as spare parts) may be constrained by competition in a related market (that for the primary product) is well-established. Failure to consider retail-level constraints could lead to incorrect conclusions regarding market power and inappropriate remedies at the wholesale level.
- 3.120 Ofcom does not consider that it is strictly necessary to demonstrate that it is possible to unbundle cable access services in order to conclude that cable access and copper access should be treated as part of the same market. This is because there is an indirect constraint on copper access provided by cable via the substitution between consumers at the retail level.
- 3.121 As explained above, the market definition analysis is required to be carried out absent regulation. Ofcom agrees with Wanadoo that there are very few, if any, examples of vertically integrated operators that willingly provide unbundled access. Even BT would probably not provide unbundled access in the absence of requirements to do so. However, this does not mean that there is no wholesale access input into downstream products. Therefore, absent regulation the analysis of substitution can only be carried out downstream, as this would be where substitution could take place.
- 3.122 As noted above, Ofcom considers that there are arguments for and against defining separate wholesale local access markets for business and residential use. However, Ofcom maintains that on balance it is appropriate to define a single wholesale local access market for supply to both business and residential users. This approach was supported by most respondents to the May consultation document.

Responses to the August consultation

Approach to market definition

- 3.123 Wanadoo considers that Ofcom has not adequately dealt with the points it made in response to the May consultation.
- 3.124 The Commission comments that Ofcom's approach to defining the wholesale market on the basis of the competitive conditions in the corresponding retail markets is not inconsistent with the methodology set out in the Commission's Recommendation and in the SMP Guidelines. However, the Commission states that Ofcom should have considered the technical, practical and economic feasibility for cable operators to offer facilities equivalent to unbundled local loops, which may have led to a narrower market definition that excluded cable-based local access. Given that the exclusion of cable would not have led to a different finding of SMP, the Commission considers

that the conclusion of the exact scope of the product market is not relevant for the purposes of assessing SMP.

Kingston

- 3.125 Kingston has argued that the product market should be broadened to also include wireless wholesale local access products. Kingston considers that sufficient supply-side substitution would occur in the event of a hypothetical monopolist in the provision of loop-based or cable-based local access increasing prices by 5% to 10%, to render this price increase unprofitable.

Ofcom response

Approach to market definition

- 3.126 Ofcom has fully considered Wanadoo's comments made in response to the May consultation and considers that these have been dealt with adequately above.
- 3.127 Ofcom considers that the technical, practical and economic feasibility for cable operators to offer facilities equivalent to unbundled local loops whilst relevant is not critical to understanding the constraints exercised by cable-based local access. This is because increases in wholesale prices which are passed on in retail prices may induce substitution into another retail product that is produced with a different input. Therefore, even if cable operators do not offer an equivalent wholesale product, cable access could still exert a constraint on copper access prices. In any event, Ofcom notes the Commission's comment that excluding cable-based access would not impact on Ofcom's findings of SMP as discussed in Section 4.

Kingston

- 3.128 While Ofcom recognises that wireless local access potentially could be included in the wholesale local access market at some point in the future, the evidence does not currently suggest that this form of local access provides a pricing constraint sufficient for it to be in the same market as loop-based and cable-based local access products. However, should Ofcom become aware that market conditions materially change, it would consider at that stage whether it was appropriate to carry out a further market review in advance of the usual two to three year period between reviews.

Conclusion on wholesale product market

- 3.129 In summary, Ofcom's conclusion is that it is appropriate to define a relevant wholesale product market for loop-based and cable-based local access.

Forward look

- 3.130 Paragraph 3.1 of the Explanatory Memorandum accompanying the Commission's Recommendation states that because market analysis is forward-looking, markets are defined prospectively taking account of expected or foreseeable technological or economic developments over a reasonable horizon linked to the timing of the next market review.

3.131 Ofcom believes that if a change in the definition of the relevant product market occurs, it is most likely to arise because either fixed wireless or mobile local access services begin to exert an effective competitive constraint on loop-based and cable-based local access. However, as discussed above, Ofcom currently believes that it is unlikely that the strength of these constraints will change to a sufficient extent over the next 2 to 3 years to affect the relevant market definition appropriate for this review.

Wholesale geographic market

3.132 The geographic boundaries of the relevant market, like those of the product market, are defined by identifying all relevant competitive constraints.

3.133 The hypothetical monopolist test can be applied to geographic market definition, as well as to product market definition. Again, it is conventional to begin with a relatively narrowly defined hypothesised market. The profitability of a SSNIP by a hypothetical monopoly supplier of services in a particular geographic area would then be undermined if it induced:

- a sufficient switch of customer demand to suppliers outside the area; or
- a sufficient supply-side response within the area from suppliers currently operating outside the area.

3.134 Since the provision of a local loop or cable connection to particular premises is an inherently local activity, there is little scope for direct demand-side substitution to loops offered elsewhere. By definition, a customer can only purchase a relevant loop or cable connection from a supplier who can provide a connection to that end user's premises. It follows too that the practical scope for supply-side substitution is likely to be limited to suppliers who have made infrastructure investments in the vicinity of the end user's premises.

3.135 Some overlap in the 'catchment' areas that can be served by the infrastructure at a given location may arise, with substitution then hypothetically possible for at least those consumers in the overlap between catchments. Where multiple overlaps of catchments arise in this way, chains of substitution may result in a single geographic market encompassing areas which are broader than indicated by direct substitution possibilities alone. Nevertheless, this mechanism is unlikely to result in an extensive broadening of the relevant market.

3.136 However, in the current context, this narrow approach to market definition may fail to capture adequately the competitive constraints operating on supply in a particular geographic area. Specifically, the hypothetical nature of the SSNIP test takes no account of the geographic pricing constraints faced by specific firms in reality.

3.137 Where firms choose, in practice, to adopt uniform pricing across local areas, local competitive pressures will have an impact only to the extent that they affect that single uniform price. Moreover, to the extent that local factors do influence that price, the effect will be transmitted beyond the particular area where the competitive pressure originally arose.

3.138 For some wholesale services, BT's charges are currently set by regulation at a level which does not vary with geography. In such cases, it cannot be

automatically assumed that uniform pricing would continue in the absence of that regulation. Nevertheless, for other wholesale products, BT chooses to set uniform prices across its service area, even though it is not currently required to do so by regulation. This is the case, for example, for BT's DataStream wholesale broadband access service, for which local access represents a significant component.

- 3.139 On this basis there appear to be grounds for believing that BT would implement geographically uniform prices for local access even in the absence of regulatory constraints. In this context, Ofcom believes that restricting attention to a narrowly defined geographic area is unlikely to identify all the sources of relevant competitive constraint affecting local access pricing in that particular area. Instead, a service-area wide perspective is appropriate.
- 3.140 There are a number of other factors which also support this conclusion. Firstly, customers purchasing wholesale local access are unlikely to do so to supply very small individual local areas but to supply services to customers on a broader geographic basis, creating pressure for tariffs that apply across wider geographic areas than a very local perspective might suggest. Second, a number of BT's and Kingston's own retail tariffs are required to be set uniformly across their service area as result of their universal service obligations.
- 3.141 It is significant, too, that even the cable operators, who are not themselves subject to regulatory constraints, have adopted uniform pricing throughout their service territories.
- 3.142 Further, the Competition Commission's 2000 analysis of the proposed merger between ntl and the cable business of Cable & Wireless is also informative¹⁴. In that case, a national player (BSkyB) was found to price its pay-TV services uniformly despite facing competition from the cable companies which varied from area to area, as each cable company operates in a different area and many areas have no cable provider at all. The Commission identified the relevant market as national in scope. An analogous structure holds in the wholesale local access market being reviewed here, with a national service provider (BT) again competing primarily with the cable companies.
- 3.143 Since BT does not operate a local access network in the Hull Area, the impact of its uniform pricing policy will not extend across to that area. Symmetrically, Kingston's uniform pricing constraint will not materially affect locations outside the Hull Area.
- 3.144 Ofcom's conclusion is therefore that two distinct wholesale geographic markets are relevant for the purposes of this review, namely:
- the UK excluding the Hull Area; and
 - the Hull Area.
- 3.145 Nevertheless, as with the retail geographic market definition considered above, Ofcom recognises that the broad UK geographic market is characterised, to some extent, by local characteristics including some variation in the degrees of competitive pressure.

¹⁴ See Competition Commission (2000): *NTL Incorporated and Cable & Wireless Communications Plc: A report on the proposed acquisition*.

Responses to the May consultation

- 3.146 BT did not explicitly state whether it agreed or disagreed with Ofcom's geographic market definition. However, BT argued that because national wholesale prices were required in some markets by regulation, this put pressure on BT to price all wholesale products on a national basis.
- 3.147 BT also disagreed with the reference to the Competition Commission's investigation into the ntl/C&W merger, as the issue of geographic market boundary was not explored in any great detail in the report.
- 3.148 All other respondents agreed with Ofcom's geographic market definition.

Ofcom response

- 3.149 The definition of geographic markets in communications, and particularly in access markets, is more problematic compared to other markets. This is because the standard SSNIP test based on demand-side and supply-side substitution may identify a large number of very local markets, perhaps as narrow as single premises markets. Nevertheless, there are certain factors which tend towards defining the geographic scope of the market more broadly, most notably:
- customers, in this case LLU operators, will typically buy lines in a number of locations as a bundle (cluster markets). This may mean that buyers are not solely concerned with the individual prices of particular products or prices in particular areas, but with the total price of the bundle; and
 - there is a common pricing constraint i.e. uniform national pricing, which does not depend on SMP in the market in question.
- 3.150 Ofcom's view is that these factors allow areas where competitive conditions are similar to be identified and aggregated.
- 3.151 In the wholesale local access market, LLU operators will tend to purchase LLU products across a range of geographic areas (including cable and non-cable areas) at the same time. In addition, as noted above, BT currently chooses to price a number of wholesale products on a national basis, even though it is not required to do so by regulation. In addition, cable operators offering local access products also have a single price, where there are no pricing obligations in place.
- 3.152 While it is likely that LLU will develop in areas with higher customer densities, predictions about where LLU may or may not occur are uncertain. Therefore, Ofcom does not consider that it would be appropriate to define the geographic market based on such predictions.
- 3.153 Ofcom believes that the Competition Commission's conclusions in respect of the ntl and C&W merger are relevant and that Ofcom's conclusions here are consistent with those of the Competition Commission.

Responses to the August consultation

- 3.154 One respondent argues that the scope of the geographic market definition is not only informed by BT's uniform pricing, but also that, given the choice, all telecoms players will generally price on a national basis, being true for mobile

and fixed operators (including cable operators). This suggests the presence of a national market for wholesale local access.

- 3.155 The same respondent is also concerned that the inclusion of cable local access in the market for wholesale local access could mean that, in the future, if disaggregated geographic local access markets are defined, BT will be found not to have SMP in certain geographic locations, specifically those areas in which BT's local access layer overlaps with cable networks.

Ofcom response

- 3.156 Ofcom agrees with the respondent that the additional factors identified reinforce Ofcom's conclusions that there is a national market for wholesale local access.
- 3.157 For the reasons set out above, Ofcom believes that it is correct that cable-based access should be included in the market with loop-based access. Ofcom's current view is that the relevant market is national. It has not therefore undertaken an assessment of SMP on the basis of local geographic markets, although it notes that it is unclear whether currently or in the near future there would be areas where BT would not have SMP, even if local markets were defined.

Conclusion on wholesale geographic market

- 3.158 Ofcom's conclusion is that the wholesale geographic markets relevant for the purposes of the current review are:
- the UK excluding the Hull Area; and
 - the Hull Area.

Forward look

- 3.159 As set out in the retail market analysis, Ofcom does not believe that material developments with regard to geographic market definition will arise within the 2 to 3 year horizon relevant for the current review.

Conclusion on market definition

- 3.160 Ofcom concludes that the markets which are relevant to the current review are:
- wholesale local access in the UK excluding the Hull Area; and
 - wholesale local access in the Hull Area.

The relationship between the market definition and the European Commission's Recommendation

- 3.161 In Section 2, it has been explained that Ofcom must take the utmost account of the Commission's SMP Guidelines and Recommendation.
- 3.162 The Commission has, in its Recommendation (point 11 of the Annex), defined the following as a relevant market in accordance with Article 15(3) of the Framework Directive:

"Wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services."

- 3.163 This definition appears to include access to metallic loops supplied by cable operators but not to other physical media such as coaxial cable or fibre used by such operators to provide broadband services.
- 3.164 Ofcom has given careful consideration to the Commission's market definition. Given the substantial deployment of cable systems in the UK market and the competitive constraint, albeit currently indirect, this places on wholesale services offered by local loop providers, Ofcom considers it appropriate to include cable access in the relevant product market. It considers that its market definition corresponds closely to that set out in the Recommendation, taking account of national circumstances. In any event, as recognised by the Commission in its response to Ofcom's August consultation, the exclusion of cable-based access from the relevant market definition would not impact on Ofcom's SMP findings as discussed in Section 4.

The relationship between this market review and the Competition Act 1998 and Enterprise Act 2002 investigations

- 3.165 The economic analysis carried out in this statement is for the purposes of determining the relevant markets and whether an undertaking or undertakings have SMP in the relevant markets. It is without prejudice to any economic analysis that may be carried out in relation to any investigation pursuant to the Competition Act 1998 (relating to the application of the Chapter I or II prohibitions or Article 81 or 82 of the EC Treaty) or the Enterprise Act 2002.
- 3.166 The fact that economic analysis carried out for a market review is without prejudice to future competition law investigations and decisions is recognised in Article 15(1) of the Framework Directive which provides that:

"The recommendation shall identify...markets...the characteristics of which may be such as to justify the imposition of regulatory obligations...without prejudice to markets that may be defined in specific cases under competition law..."

- 3.167 This intention is further evidenced in the European Commission's SMP Guidelines, which state:

Paragraph 25: "...Article 15(1) of the Framework Directive makes clear that the markets to be defined by NRAs for the purpose of ex ante regulation are without prejudice to those defined by NCAs and by the Commission in the exercise of their respective powers under competition law in specific cases." (This is repeated at paragraph 37.)

Paragraph 27: "...Although NRAs and competition authorities, when examining the same issues in the same circumstances and with the same objectives, should in principle reach the same conclusions, it cannot be excluded that, given the differences outlined above, and in particular the broader focus of the NRAs' assessment, markets defined for the purposes of competition law and markets defined for the purpose of sector-specific regulation may not always be identical."

Paragraph 28: "...market definitions under the new regulatory framework, even in similar areas, may in some cases, be different from those markets defined by competition authorities."

- 3.168 In addition, it is up to all communications providers to ensure that they comply with their legal obligations under all the laws applicable to the carrying out of their businesses. It is incumbent upon all operators to keep abreast of changes in the markets in which they operate, and in their position in such markets, which may result in legal obligations under the Competition Act 1998 (either relating to the Chapter I or II prohibitions or Article 81 or 82 of the EC Treaty) or Enterprise Act 2002 applying to their conduct.

Section 4

Market power assessment

- 4.1 Ofcom has considered the responses to the previous consultations carefully and has taken them into account in making its final decision. Ofcom's final decision on SMP is unchanged from that set out in either of the previous consultations.

Introduction

- 4.2 Section 45 of the Act details the various conditions that may be set under the new regime. Section 46 details those on whom conditions may be imposed. In relation to SMP services conditions, section 46(7) provides that they may be imposed on a particular person who is a communications provider or a person who makes associated facilities available and who has been determined to have SMP in a "services market", i.e. a specific market for electronic communications networks, electronic communications services or associated facilities. Accordingly, having identified the relevant market, Ofcom is required to analyse the market in order to assess whether any person or persons have SMP as defined in section 78 of the Act (in line with Article 14 of the Framework Directive).
- 4.3 Under section 78(1) of the Act and Article 14 of the Framework Directive, SMP has been defined so that it is equivalent to the competition law concept of dominance. Specifically, the Framework Directive states that *"An undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers."*
- 4.4 The Framework Directive and the Commission's SMP Guidelines state that a market shall be deemed effectively competitive if no communications provider in that market, either individually or collectively, has SMP.
- 4.5 SMP may be held by only one company in the market (single dominance) or by more than one company together (collective dominance). The SMP assessment in this review focuses on single dominance as Ofcom does not believe that there is a realistic possibility that SMP is held by more than one company in the local access markets considered (since no more than one communications provider has a share of more than 10% of any of the markets defined, for example). As a consequence, none of the criteria to assess collective dominance will be reviewed further in this analysis.
- 4.6 The assessment of dominance focuses on assessing the strengths of three distinct sources of actual or potential competitive constraint, namely:
- existing competitors;
 - potential competition (i.e. the entry threat); and
 - countervailing buyer power.

- 4.7 Each of these factors is considered in turn below for each of the markets identified in Section 3.
- 4.8 In assessing whether any undertaking has SMP within these relevant markets, Ofcom has taken the utmost account of all relevant European Commission recommendations and guidelines, including the Commission's SMP Guidelines.

The wholesale local access market in the UK excluding the Hull Area

Existing competitors

- 4.9 At the present time, only BT and the cable operators, ntl and Telewest, have any significant presence in the supply of the wholesale local access services defined above in the UK excluding the Hull Area.

Shares of supply

- 4.10 Market share information provides a summary measure of the historic competitive effectiveness of the various operators on the market in question. An analysis of the shares of wholesale supply of the relevant local access connections achieved by the various operators (including operators' supplies to their own downstream operations as well as to other wholesale customers) shows that BT retains an overwhelming share, at around 83%, of relevant connections for the UK excluding the Hull Area.
- 4.11 Moreover, these market shares have remained stable for some time, as the data set out in the table below confirms. This suggests that BT's current market position has endured, and will continue to do so over the timeframe relevant to this review.
- 4.12 This market share information in itself provides a strong indication that BT possesses market power in the relevant market.

Table 4.1
Local access connection volume shares for the UK excluding the Hull Area

	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2
BT	84%	84%	84%	84%	84%	84%	84%	84%	83%	83%
ntl	7%	7%	7%	7%	7%	7%	7%	7%	8%	8%
Telewest	6%	6%	6%	6%	6%	6%	6%	6%	6%	7%
Other	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%

Source: Ofcom estimates from operator data

- 4.13 The inferences to be drawn from market share information would not be affected if separate markets were defined for residential and business wholesale local access.
- 4.14 BT holds a share of residential local access connections of more than 80%. In comparison, each of the cable operators, which are the only significant alternatives to BT as providers of relevant local access supply, accounts for no more than 10% of residential connections, calculated on a market-wide basis.

Table 4.2
Residential local access shares for the UK excluding the Hull Area

	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2
BT	83%	83%	83%	83%	84%	84%	83%	83%	83%	82%
ntl	10%	10%	9%	10%	9%	9%	10%	10%	10%	10%
Telewest	7%	7%	7%	7%	7%	7%	7%	7%	7%	8%

Source: Ofcom estimates from operator data

- 4.15 For the supply of loop-based and cable-based local access connections to business, BT's share is even higher, as shown in the table below. Again, the cable operators are the largest alternative providers.

Table 4.3
Business local access shares for the UK excluding the Hull Area

	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2
BT	86%	85%	84%	85%	84%	84%	84%	84%	83%	84%
ntl	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Telewest	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Other	8%	9%	10%	9%	10%	10%	10%	10%	10%	10%

Source: Ofcom estimates from operator data

- 4.16 For the reasons set out in the discussion of market definition above, Ofcom believes that a relatively wide geographic perspective is appropriate, reflecting the reality of competition and pricing constraints. However, one consequence of this is that, since each of the cable operators is active in only a subset of the overall relevant geographic market, these shares will tend to understate their strength in those areas. At the same time, the scope for purchasers to switch to cable is limited to those areas. Nevertheless, data published by the cable operators indicates that they provide voice and data services to around a third of homes passed. This implies that even for the cable operators' franchise areas, BT retains a share of around two thirds of lines supplied, though local pockets of higher cable penetration arise.

Potential supply capability

- 4.17 The share data set out above provides information on the proportion of local access connections actually supplied by each of the major operators. However, in principle, such shares may understate the ability of an operator to compete to supply local access connections, and therefore the capacity of that operator to exert effective competitive pressure in the market. In particular, even where customers do not choose to obtain services from cable operators, the presence of a cable offering may constrain BT's wholesale pricing of local access products. A measure of the number of end-user premises that could be connected by the cable operators therefore provides an upper-bound on the extent of their competitive presence.
- 4.18 Telewest's Q3 2004 quarterly report indicates that its network passes around 4.7 million homes (of which around 4.4 million were serviceable for broadband), while ntl's Q3 2004 quarterly report indicates that its network passes 7.9 million homes (of which around 6.8 million homes are serviceable for broadband). The cable operators' networks are therefore capable of providing access to around 50% of residential premises throughout the UK. Consequently, cable-based access is an option for a substantially greater number of residential customers than are currently served by the cable operators.

- 4.19 Moreover, the cable operators experienced annualised churn for the final quarter of 2003 of around 13%, providing support for the view that a wider group of customers than currently served has found cable an attractive option at some point in time at least. Equally, BT presumably retains the capacity to provide service to those customers who have switched to the cable companies or other operators.
- 4.20 Nevertheless, despite the fact that the cable operators have made a largely sunk investment in infrastructure capable of serving a substantial number of residential premises, and are able to offer a package of conventional telephony, broadband and TV services, they currently provide services to substantially less than 50% of the available customer base within their respective franchise areas. Furthermore, as noted above, their overall share of supply has remained fairly constant over the last few years. There is no evidence to suggest that this position will change to a material extent within the period considered by this review.

Financial constraints

- 4.21 Both ntl and Telewest have experienced some financial difficulty in recent years. Ofcom believes that their ability to access the finance that would be required to secure a substantially higher share of accessible customers or extend their networks to provide greater coverage is restricted over the short term at least. Further, ntl has announced its intentions to use LLU outside its coverage areas, which further implies that it is unlikely to extend its cable network any further in the near future.

Conclusion on existing competition

- 4.22 Consequently, Ofcom is of the view that the constraint provided by the cable operators, which is anyway available in only 50% of BT's service area, will not be sufficient to constrain BT's market power during the period relevant to this review.

Entry and barriers to entry

- 4.23 Even where there is limited actual competition in a market, the operators in that market may be subject to effective constraint where there are ready opportunities for entry in response to any attempt to exploit market power.
- 4.24 Indeed, the European Commission states at paragraph 78 of its SMP Guidelines that the existence of a dominant position cannot be established on the sole basis of large market shares. At paragraph 80 of the SMP Guidelines, the Commission notes that a finding of dominance depends on an assessment of ease of market entry.
- 4.25 In carrying out its SMP assessment, Ofcom has therefore given consideration to the existence of barriers to entry in the relevant market.

Required scale of investment

- 4.26 The establishment of a new wholesale local access service would entail very significant capital investment. In particular, it is likely to require major investment in the provision of suitable ducting to house cables or wires, as

well as providing the cable or wire itself. Given the scale of the work required to duplicate even a portion of BT's extensive network, implementation would take a considerable period of time. As such, Ofcom does not believe that entry of this sort could achieve sufficient scale to undermine BT's market power within the 2 to 3 year horizon relevant to this market review.

Sunk costs

- 4.27 The costs associated with investment in local infrastructure investment are largely sunk, i.e. irreversible. They cannot be recovered if the local access provider were to exit the market. Such sunk costs represent a significant barrier to entry.
- 4.28 The presence of sunk costs is especially relevant where existing operators have established networks offering plentiful capacity. In such cases, first-mover advantages are likely to be decisive. In the absence of regulation, such operators could be expected to respond to the threat of new entry and the prospect of underutilised capacity by reducing access prices where entry occurs. Any rational entrant contemplating investment would therefore base its decisions on likely post-entry prices, which might be substantially below prevailing price levels.
- 4.29 In those areas already served by the cable operators, as well as BT, it seems unlikely that any new entry into the provision of wholesale local access would be contemplated in the absence of technological developments which would be substantial enough to undermine the competitive capabilities of the existing local access providers. For those areas not currently served by cable, this fact alone suggests that new entry is unlikely to be an attractive proposition.

Economies of density

- 4.30 A local loop network, such as BT's, is made up of individual twisted copper pair connections between each household and a MDF. As such, there are few economies of density in the provision of the loops themselves. However, other than over the last few metres to a particular site, the connection loops for several premises will share housing or ducting. Equally, density is critical to the economic provision of backhaul, establishing onward connection to a wider communications network. The connection infrastructure at the MDF too will be shared by many individual connections. In addition, economies of density in the provision of maintenance services also arise.
- 4.31 Consequently, significant economies of density will operate in the establishment and operation of wholesale local access services. The economics of market entry therefore dictate that the provision of a wholesale local access service would need high penetration of any area served to be viable.
- 4.32 It is significant to note that the cable operators have not sought to extend their networks to areas of lower population density, presumably because of the reduced opportunities for economies of density to be realised.

Benefits to ubiquity

- 4.33 Significant advantages are likely to accrue to a wholesale local access operator who can offer a ubiquitous service. Firstly, such a service operator is likely to benefit from scale economies in terms of overheads, marketing, and procurement. Secondly, wholesale and business customers in particular are likely to find it more attractive to negotiate terms for access across a broad geographic area with a single operator.

Vertical linkages

- 4.34 BT is a significant player at all stages of the vertical chain from wholesale local access provision through to retailing of narrowband and broadband services. This provides BT with distinct competitive advantages.
- 4.35 A wholesale local access operator will need either a direct or indirect mechanism for acquiring customers. This implies either that it develops its own retailing operations, or that it is able to secure demand from downstream operators with a sufficiently extensive customer base. In any case, this is a further entry barrier for new entrants. BT is currently the major provider of retail services to end-users. As such it is in a strong position to consolidate the market position of its own local access business. It is unlikely to switch its demand for wholesale local access to a rival provider.

Economies of scope

- 4.36 BT is able to benefit from economies of scope due to the breadth of its operations.
- 4.37 Moreover, when the cable operators established their local infrastructure networks, they were able to do so offering a combination of pay-TV and telephony services. This allowed these operators to market a differentiated, bundled offering to end users and also to benefit from substantial economies of scope in delivering services. The Siamese cable connections utilised by the cable operators combine metallic pairs used for narrowband applications with co-axial cables which deliver TV and broadband.
- 4.38 Despite these advantages, the cable operators have not extended their networks to pass more than 50% of residential homes. Moreover, even in those areas where they are active, the cable operators have experienced difficulties delivering a commercially viable business.
- 4.39 Given this, it appears unlikely that an operator competing to provide broadband services only, for example, would succeed in developing a competitive local access network in the absence of a significant technological shift.

Conclusions on new entry

- 4.40 Ofcom's concludes that it is unlikely that a substantial new entrant into the market for wholesale local access can be expected to materialise over the foreseeable future. The possibility that the cable operators might become more effective competitors within their existing franchise areas appears a much more likely source of increased pressure on BT.

- 4.41 More generally, the development of fixed wireless technologies appears a more likely route for new entry. However, as the analysis of market definition makes clear, Ofcom believes that a constraining effect from fixed wireless technology is unlikely to develop within the time horizon considered in the current review.
- 4.42 Further, Ofcom has stated in phase 2 of its strategic review of telecommunications that it does not believe that there will be any new mass market access networks providing competition between now and the end of the decade.

Countervailing buyer power

- 4.43 Paragraph 78 of the European Commission's SMP Guidelines states that one of the criteria which may be relevant in assessing SMP is the absence of or low countervailing buying power.
- 4.44 BT's ability to exploit its market position as a supplier of wholesale local access may be constrained by countervailing buyer power. However, for this to be the case, purchasers of wholesale local access must be able to credibly threaten to switch their demand away from BT.
- 4.45 In practice, by far the most substantial purchaser of wholesale local access services from BT is BT itself¹⁵. It does not seem likely to Ofcom that BT's own downstream operations would utilise any buyer power they possess to undermine BT's market position at the upstream level.
- 4.46 While some wholesale customers, such as the ISPs, might be able to threaten to switch their service provision to using cable-based access, the extent of such switching, even if it were undertaken, would be limited, given BT's significant presence in the downstream markets, and the constraint that the cable networks can reach at most around 50% of homes. The potential demand for wholesale local access from buyers other than BT and the cable operators is not currently of the scale to support the development of a new local access network.

Conclusions on countervailing buyer power

- 4.47 Ofcom's conclusion is that no purchasers of wholesale local access services would exert countervailing buyer power in this market.

Responses to the May consultation

- 4.48 BT argued that applying a standard SMP analysis to Ofcom's market definition gave a misleading impression as to the strength of BT's market position. BT argued that its market share was over estimated because of the inclusion of uneconomic customers that it served as a result of its universal service obligations. BT argued that many of these customers had a low willingness to pay and would not demand the service at an economic price level. BT estimated that such customers were around 10% of all households.

¹⁵ BT's overall share of retail local access connections is only slightly less than its wholesale local access share. This suggests that BT itself accounts for a very high proportion of the purchases of its own wholesale local access products.

- 4.49 BT also argued that its market power was limited by external competitive constraints, such as mobile telephony and the provision of access over cable networks and, in particular, it considered that, in areas where cable access was also available, no provider had SMP.
- 4.50 On sunk costs, BT argued that sunk costs did not in themselves confer market power and that Ofcom accepted this point in the wholesale broadband access market review. BT argued that rival access technologies limited the extent to which sunk costs acted as a barrier to entry.
- 4.51 BT agreed that there were significant economies of density, which it argued could mean that costs and prices varied on an exchange by exchange basis. BT considered that Ofcom's reasoning was in fact an argument for alternative market definitions, rather than an indicator of SMP.
- 4.52 All other respondents agreed with Ofcom's finding of SMP.

Ofcom response

- 4.53 As noted above in the market definition section, Ofcom continues to believe that its market definition is appropriate and is supported by the available evidence. Therefore the assessment of market power is carried out with respect to the markets defined in Section 3. As BT is aware, its universal service obligations are not related to it having SMP in the relevant market. Therefore, when assessing SMP in the market, it is appropriate to consider BT's market power with these obligations in place. In any event, the inclusion of uneconomic customers is unlikely to change the finding of SMP.
- 4.54 Ofcom recognises that BT's market power is limited to some extent by external constraints. For example, when discussing cable, Ofcom makes clear that there is a constraining effect on BT's behaviour. However, the extent of this constraint is limited because of the limited reach of the cable networks, which only cover part of the relevant geographic market. The ability of mobile access to constrain loop-based access is considered in the market definition section, where Ofcom concludes that mobile access is not in the same market as loop-based access and so would not prevent BT charging above the competitive level for the latter.
- 4.55 BT's comment that no operator has SMP in the cable areas reflects BT's belief that separate geographic markets covering the cable areas should be defined. As made clear in the market definition section, Ofcom believes it appropriate to define a national geographic market, while recognising that there are local characteristics within that market. In any case, it cannot be presumed that BT would not have SMP in areas where there is a cable competitor, even if these were analysed separately.
- 4.56 Sunk costs are only one of the indicators of market power, albeit an important one, especially when discussing communications networks. Although the sunk costs associated with some rival access technologies may not be of the magnitude of those required if an access network similar to BT's were deployed, they still require significant costs to be sunk in order to enter the market. These sunk costs are important when considering whether or not to enter the market and as such can impose a significant barrier to entry.

- 4.57 Ofcom considers that the existence of significant economies of density indicates SMP because it means that an entrant must achieve a significant market share to be competitive on costs.

Forward Look

- 4.58 Given the relevant market analysis set out above, a change in the competitive conditions would require:
- a radical increase in the competitive appeal of the services provided by the cable operators;
 - the emergence of a credible new entrant in the supply of wholesale local access services; or
 - a transformation in the buyer side of the market.
- 4.59 While the growing importance of internet and general broadband demand may provide a significant stimulus to the market, it seems unlikely that this will induce a sufficient transformation of the relevant competitive landscape over the 2 to 3 year timeframe considered in the current review.

Conclusion on SMP in the UK excluding the Hull Area

- 4.60 Ofcom's conclusion is that BT holds a position of SMP in the wholesale local access market for the UK excluding the Hull Area, and that this position is unlikely to change over the timeframe relevant for this review.

The wholesale local access market in the Hull Area

Existing competitors

- 4.61 Ofcom understands that Kingston supplies around 100% of the relevant local access connections within the Hull Area. In other words, competitor supply is negligible. As such, Kingston faces no effective constraint from existing competitors.

Entry and barriers to entry

- 4.62 In general, the characteristics of the wholesale local access market as they apply across the UK excluding the Hull Area apply equally to the Hull Area too. The fundamental cost economics of establishing the local access infrastructure which connects to a particular concentrator site are essentially equivalent. In particular, the sunk nature of the investment concerned and the importance of economies of density carry across. In the Hull Area it is Kingston that possesses the decisive first-mover advantages held by BT elsewhere.
- 4.63 There are three potentially relevant differences in considering the possibility of entry in the Hull Area, namely:
- the market size is significantly smaller than that covering the rest of the UK;
 - the cable operators have not entered the Hull Area market to date;
 - BT is a potential entrant in the Hull Area.

- 4.64 As noted above, while the investment required to duplicate Kingston's local access network would be much smaller than required to duplicate BT's, the fundamental local cost economics remains the same.
- 4.65 Experience from the rest of the UK suggests that the cable operators would be unlikely to provide an effective constraint on Kingston even if they were to enter the Hull Area market. It is unlikely that cable operators would consider establishing a network throughout the Hull Area, even if they were to enter some parts of the market. Moreover, the financial experience of the major cable network operators elsewhere suggests that any new entry is unlikely to be attractive.
- 4.66 BT does represent a very substantial potential entrant and already offers local access services in areas adjacent to the Hull Area. While BT may have infrastructure at the boundaries of the Hull Area which could be extended to provide connections within the Hull Area, such incremental expansion is unlikely to be substantial, and therefore is unlikely to constrain any market power held by Kingston. Under prevailing conditions, Ofcom believes it is unlikely that BT would find it attractive to establish a network which substantially duplicates that of Kingston across the Hull Area, given the latter's first-mover advantages.

Countervailing buyer power

- 4.67 Kingston is the only purchaser of wholesale local access, as defined above, within the Hull Area. Consequently, there is no independent buyer capable of constraining Kingston's market power in the wholesale local access market. Moreover, Kingston's downstream operations have no incentive to exert downward pressure on its local access charges where these might also benefit competitors.

Responses to the May consultation

- 4.68 Kingston noted its strong market position in the Hull Area. However, Kingston also noted that this was not the result of anti-competitive behaviour on the part of Kingston or of unduly high barriers to entry. As the Hull Area is relatively small and there are low barriers to entry, Kingston's view was that this market power would not endure and further ex-ante regulation was unnecessary.
- 4.69 Kingston also commented that the extent of its market power was not fully reflected in Ofcom's analysis. Kingston was much smaller than BT and as such had less ability to exert market power. For most of the criteria used to assess market power, BT was in a much stronger position than Kingston. Kingston considered that it was important to recognise that the threat of entry, from alternative access technologies, which could cover the Hull Area at relatively low cost, placed a key limitation on Kingston's ability to exert market power. Kingston argued that the local access market was fully contestable on an end to end basis.

Ofcom response

- 4.70 Ofcom does not suggest that Kingston's market power in the Hull Area is the result of anti-competitive behaviour. Ofcom also recognises that Kingston is much smaller than BT. However, while Kingston is much smaller than BT, the

access market in which Kingston has SMP (the Hull Area) is also much smaller than the access market in which BT has SMP (the UK excluding the Hull Area). Therefore, Kingston's size relative to the size of BT is less relevant than its size relative to the access market in which it operates.

- 4.71 It is also true that there may be lower costs for a new entrant to enter the market in the Hull Area than some parts of the rest of the UK market. However, entry would still require sunk costs to be incurred and also there are only limited signs that entry may occur in the period of the market review. As such, Ofcom continues to believe that the barriers to entry that it has identified and Kingston's high market share will endure for the period of the market review.
- 4.72 Ofcom has recognised the smaller size of Kingston compared to BT and the particular characteristics of the wholesale local access market in the Hull Area when assessing the proportionality of potential remedies to impose on Kingston. For that reason the remedies for Kingston are less demanding than those for BT in the rest of the UK.

Responses to the August consultation

- 4.73 Kingston argues that the local access market in the Hull Area is fully contestable on an end to end basis due to the ability of alternative providers to use wireless access technologies to offer alternative local access services and therefore considers that Ofcom's finding of SMP is unwarranted.

Ofcom response

- 4.74 Ofcom disagrees that its SMP designation for Kingston is unwarranted. Ofcom's market definition analysis concludes that wireless local access products are in a separate economic market from loop-based and cable-based local access products. This is because the limited roll out of fixed wireless networks to date and the cost of end user equipment make it unlikely that the existence of such networks exerts a constraint on the price of loop-based or cable-based access. In addition, significant investment and time is required to roll out a wireless network and this would limit any possibility of supply-side substitution.
- 4.75 Nevertheless, although Ofcom has not assessed whether Kingston would have SMP in a broader market that also includes wireless local access products, given the limited use of wireless local access products in the UK at this time, it seems unlikely that Ofcom would come to a different conclusion. However, if the market changes to such an extent that new entry using wireless local access products was an effective constraint on Kingston and this could be demonstrated, Ofcom would consider at that point whether it was appropriate to carry out a further market review and, if so, whether the current market definitions remained relevant and the level of market power Kingston may have in those markets.

Forward Look

- 4.76 As noted above, a relevant change in the competitive conditions of the wholesale local access market in the Hull Area would require either the emergence of a credible new entrant in the supply of such services or a transformation in the buyer side of the market. Ofcom does not believe that

such a shift in the relevant competitive landscape will be brought about over the 2 to 3 year horizon appropriate to this review.

Conclusion on SMP in the Hull Area

- 4.77 Ofcom concludes that Kingston possesses SMP in the supply of wholesale local access in the Hull Area, and that this position is unlikely to change over the timeframe relevant to this review.

Technical areas – Co-location

Introduction

- 4.78 Co-location is the provision of space at a MDF site that enables a competing operator to locate equipment in order to connect to the dominant provider's network in order to purchase LLU services.
- 4.79 Physical co-location can include hostels (walled rooms shared by a number of operators), mini-hostels (rooms for less than five operators), bespoke walled rooms and co-mingling (physical co-location where an operator's equipment is fitted and operated in the same area as the dominant provider could or does house its own equipment, without a permanent barrier between them).
- 4.80 Ofcom considers that the provision of co-location includes the provision of ancillary services that are reasonably necessary for the use of co-location such as access to an MDF site and the provision of power.

Basis for regulation

- 4.81 In order to utilise LLU services, operators must be able to locate their equipment near to or at the relevant MDF site. While operators could deploy a distant location solution, this requires operators to find suitable accommodation near to the MDF building, in order to minimise the length of the tie cable required. This is not feasible in many cases. Therefore, Ofcom considers that the provision of co-location is critical to enable operators to purchase LLU services.
- 4.82 To achieve an overall solution, Ofcom considers that it is necessary to require and regulate the provision of co-location, in the absence of which, BT and Kingston would have no incentives to provide, or charge cost-based prices for, co-location. As operators must, in most cases, purchase co-location in order to purchase other LLU services, excessive prices for co-location would have the same effect as charging excessive prices for other regulated LLU services and would undermine the remedies that are being imposed by Ofcom.
- 4.83 The Commission has not identified a market for co-location in its Recommendation on relevant product and service markets. However, the third paragraph of section 3.3 of the Explanatory Memorandum to the Recommendation states that:

"...In dealing with lack of effective competition in an identified market, it may be necessary to impose several obligations to achieve an overall solution. For instance, it may often be the case that adjacent or related remedies are

applied to technical areas as part of the overall obligation that addresses SMP on the analysed market. If specific remedies are thought to be necessary in a specific narrow technical area, it is not necessary or appropriate to identify each technical area as a relevant market in order to place obligations in that area. An example would be where an obligation to provide unbundled access to the local loop is complemented by related obligations concerning access to co-location facilities.”

- 4.84 Ofcom considers that co-location should properly be considered as a technical area as set out by the Commission.

Responses to the May consultation

- 4.85 All respondents agreed that co-location should be regulated and that this can be achieved by identifying it as a technical area.

Section 5

Approach to regulatory remedies

Legal framework

- 5.1 Section 87(1) of the Act provides that, where Ofcom has made a determination that a person is dominant in a particular market, it must set such SMP services conditions as it considers appropriate and as are authorised in the Act. This implements Article 8 of the Access and Interconnection Directive.
- 5.2 Paragraphs 21 and 114 of the Commission's SMP Guidelines state that NRAs must impose one or more SMP conditions on a dominant provider and that it would be inconsistent with the objectives of the Framework Directive not to impose any SMP conditions on an undertaking which has SMP. Thus, Ofcom is under an obligation to impose at least one appropriate SMP condition where SMP is confirmed.
- 5.3 The Act (sections 45-50 and 87-92) sets out the obligations that Ofcom can impose if it finds that any undertaking has SMP. Sections 87 to 92 implement Articles 9 to 13 of the Access Directive and Articles 17 to 19 of the Universal Service Directive. The obligations relevant to this market review are, in particular:
- the provision of Network Access;
 - no undue discrimination;
 - transparency;
 - cost recovery; and
 - cost accounting and accounting separation.

Communications Act tests

- 5.4 Section 4 of the Act sets out the Community requirements on Ofcom which flow from Article 8 of the Framework Directive. In considering which, if any, SMP services conditions to impose, Ofcom has taken account of all of these requirements. In particular, Ofcom has considered the requirement to promote competition and to secure effective and sustainable competition for the benefit of consumers.
- 5.5 Section 3 of the Act imposes general duties on Ofcom, in carrying out its functions, to further the interests of citizens in relation to communications matters and of consumers in relevant markets, where appropriate, by promoting competition. Ofcom considers that the remedies imposed fulfil these general duties under section 3 of the Act, having regard to the outcome expected to be achieved. Section 3 also sets out certain matters to which Ofcom must have regard in performing its general duties. In considering which remedies to impose, Ofcom has had regard to these matters, in particular to the matters in section 3(4) of the Act, including the desirability of promoting competition in relevant markets, and the interests of consumers in respect of choice, price, quality of service and value for money, as required by section 3(5) of the Act. In this context, Ofcom also notes that section 3(6)

of the Act requires it to prioritise its duties under section 4 of the Act, if these conflict with any of its general duties under section 3 of the Act.

5.6 As well as being appropriate (see section 87(1)), each SMP condition must also satisfy the tests set out in section 47 of the Act, namely that each condition must be:

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

5.7 It is Ofcom's view that the remedies imposed satisfy the relevant requirements specified in the Act and relevant EU Directives, as detailed above. This view is explained in detail in the following sections.

Joint ERG/EC approach on appropriate remedies in the new regulatory framework

5.8 The European Regulators Group and the Commission have jointly issued a document entitled *Joint ERG/EC approach on appropriate remedies in the new regulatory framework*, 23 April 2004, that sets out practical guidance on the selection of appropriate remedies to be imposed on providers of SMP. Ofcom participated fully in the preparation of that document and believes that the remedies set out below are consistent with the guidance provided by the ERG and the Commission.

Remedies

5.9 Sections 6, 7, 9 and 10 set out Ofcom's remedies in response to the findings of SMP set out in Section 4. The SMP conditions are attached to the Notification at Annex 1 and the directions are set out at Annex 2.

Regulatory impact assessment

5.10 The analysis set out in Sections 6 to 10 represents a regulatory impact assessment ("RIA") for the purposes of section 7 of the Act. RIAs provide a valuable way of assessing different options for regulation and showing why a preferred option is chosen. They form part of best practice policymaking and are commonly used by other regulators.

5.11 Ofcom is required to carry out a regulatory impact assessment, where regulation is likely to have a significant impact on persons carrying on businesses in the markets for any of the services, facilities, apparatus or directories, in relation to which Ofcom carries out its functions.

Section 6

General remedies

- 6.1 Ofcom has considered the responses to the previous consultations carefully and has taken them into account in making its final decision. Ofcom's final decision on general remedies is unchanged except for the following:
- from the May consultation, BT and Kingston are now able to make a reasonable charge for sending out paper copies of their reference offer; and
 - from the August consultation, BT and Kingston do not have to publish details of traffic and network management in their reference offer;
 - from the August consultation, the specific example of undue discrimination in Conditions FA2.2 and FB2.2 has been removed;
 - from the August consultation, the requirement to give Ofcom ten days prior notice of any amendment to a reference offer, the requirement to notify charges and terms and conditions and the requirement to notify technical information will not apply where such amendments or new Network Access is directed or determined by Ofcom.

Aims of regulation

- 6.2 A failure to regulate BT and Kingston in the wholesale local access markets is likely to affect the development of competition in the provision of downstream (intermediate or retail) services. In the absence of regulation, BT and Kingston would have little incentive to provide wholesale services. Therefore, it is necessary to impose remedies to ensure that competition develops in the provision of downstream services, which, in turn, will ensure that the benefits of competition in terms of lower prices, wider choice of supplier, product differentiation and higher quality services are available to consumers.
- 6.3 Ofcom considers that it is appropriate to apply regulation at the wholesale level as this addresses both SMP issues in the wholesale local access markets and promotes competition in downstream markets. This is consistent with the requirement that NRAs take measures which meet the objective of encouraging efficient investment in infrastructure and promoting innovation (see Article 8(2) of the Framework Directive and section 4 of the Act). The regulation of wholesale markets encourages competing providers to purchase wholesale products and combine them with their own networks (or the networks of other providers) to create products that compete with those of BT and Kingston downstream. Further, in phase 2 of its strategic review of telecommunications, one of Ofcom's key regulatory principles is to promote competition at the deepest levels of infrastructure where it will be effective and sustainable, which in areas of higher customer densities will mean competition based on LLU.

Options for regulation

- 6.4 Ofcom has considered the following options for regulation:
- no ex ante regulation; and
 - general remedies.

6.5 In relation to the imposition of general remedies, Ofcom has considered the following options for SMP services conditions:

- Option 1: Requirement to provide Network Access on reasonable request;
- Option 2: Requirement not to unduly discriminate;
- Option 3: Basis of charges (i.e. cost orientation);
- Option 4: Requirement to publish a reference offer;
- Option 5: Requirement to notify charges and terms and conditions;
- Option 6: Requirement to notify technical information;
- Option 7: Quality of service; and
- Option 8: Requests for new Network Access.

No ex-ante regulation

6.6 Recital 27 of the Framework Directive states that *ex ante* regulation should only be imposed where there is not effective competition and where competition law remedies are not sufficient to market failures. Ofcom has, therefore, considered the option of no *ex ante* regulation and whether it would be sufficient to rely on competition law alone to address market failures in the wholesale local access markets, while noting that Ofcom is under an obligation to impose at least one appropriate SMP condition where SMP is confirmed (as explained above).

Characteristics of communications markets in general

6.7 Generally, the case for *ex-ante* regulation in communications markets is based on the existence of market failures, which, by themselves or in combination, mean that competition might not be able to become established, if the regulator relied solely on its *ex-post* competition law powers that are established for dealing with more conventional sectors of the economy. Therefore, it is appropriate for *ex-ante* regulation to be used to address these market failures and any entry barriers that might otherwise prevent effective competition from becoming established. By imposing *ex-ante* regulation that promotes competition, it may be possible to reduce such regulation, as markets become more competitive, and place greater reliance on *ex-post* competition law.

6.8 The European Commission has stated, in paragraph 3 of section 3.2 of the Explanatory Memorandum to its Recommendation, that *ex-ante* regulation is justified:

"[...] where the compliance requirements of an intervention to redress a market failure are extensive (e.g. the need for detailed accounting for regulatory purposes, assessment of costs, monitoring of terms and conditions including technical parameters etc) or where frequent and/or timely intervention is indispensable, or where creating legal certainty is of paramount concern.[...]."

6.9 This is the case for the wholesale local access markets in which BT's and Kingston's SMP leads to a risk of excessive prices and a need for intervention to set detailed terms and conditions for access to their networks.

Market dominance

- 6.10 Although some communications markets have become increasingly competitive over time, this is from a position in which most were controlled by a legacy monopoly operator. The increase in competition that has occurred inevitably reflects the imposition of *ex-ante* regulation. The legacy operators, BT and Kingston, remain, in Ofcom's view, dominant in the wholesale local access markets and it is therefore appropriate to continue to impose *ex-ante* regulation in these markets.

Network externality effects

- 6.11 The network externality effect, which means that the value of a network to its users increases more than proportionately with the number of subscribers, gives the large incumbent networks of BT and Kingston a great advantage over potential competitors. For example, the value of a network that is large relative to the relevant market might be little affected if it refused to deliver calls to or accept calls from a much smaller entrant in the relevant market, but the latter might find it impossible to attract subscribers as a result. As a consequence, this imbalance enables BT and Kingston to exclude rivals from the market by refusing to interconnect with them or to do so only on unfavourable terms.
- 6.12 General *ex-post* competition law powers may not be sufficient to address the effects of the network externality. This is because the network externality effect generally re-enforces a dominant position and under general competition law there is no prohibition on the holding of a position of dominance in itself. Therefore, it is more appropriate to address the impact of network externality through *ex-ante* obligations.

Entry barriers

- 6.13 Economies of scale result from the fact that a high proportion of the costs of a local access network are fixed whilst marginal costs (the costs of an extra unit of output) are relatively low. Economies of scale mean that a large network tends to have lower average costs than a smaller one. Therefore, successful entry by new network operators requires significant investment and most of the costs associated with this are sunk costs (i.e. they would not be recoverable if the entrant decided to exit the market). Significant sunk costs create an asymmetry in the market between BT and Kingston and potential entrants that either of the former could exploit to deter entry. For example, BT and Kingston could set low prices that might signal to a potential entrant that post-entry market prices would be too low to cover sunk costs.

Conclusion

- 6.14 Where markets are effectively competitive, *ex-post* competition law is sufficient to deal with any competition abuses that may arise. However, in a non-effectively competitive market, *ex-post* competition law is unlikely in itself to bring about effective competition, as it prohibits the abuse of dominance rather than the holding of a dominant position. In these markets, *ex-ante* regulation is needed to promote actively the development of competition. *Ex-ante* regulation attempts to reduce the level of market power in a market, thereby encouraging effective competition to become established.

- 6.15 For the reasons outlined in Section 4, Ofcom considers that the wholesale local access markets identified in Section 3 are not effectively competitive. Therefore, Ofcom considers that the imposition of *ex-ante* regulation in these markets is justified.

Responses to the May consultation

- 6.16 All respondents agreed that *ex-ante* regulation should be imposed in the wholesale local access markets and in respect of co-location.
- 6.17 BT wanted clarification that the proposed regulation of co-location only related to co-location for the use of Network Access.

Ofcom response

- 6.18 Ofcom can confirm that, in the context of this review and the remedies imposed, co-location refers to co-location for the use Network Access only.

General remedies

Option 1: Requirement to provide Network Access on reasonable request

- 6.19 Section 87(3) of the Act authorises Ofcom to set SMP services conditions requiring the dominant provider to provide Network Access as Ofcom may from time to time direct. These conditions may, pursuant to section 87(5), include provisions for securing fairness and reasonableness in the way in which requests for Network Access are made and responded to and for securing that the obligations in the conditions are complied with within periods and at times required by or under the conditions. When considering the imposition of such conditions in a particular case, Ofcom must have regard to the six factors set out in section 87(4) of the Act. These include, inter alia, the technical and economic viability of installing other competing facilities and the feasibility of the proposed Network Access.
- 6.20 As the market analysis in Sections 3 and 4 has shown, there are considerable barriers to entry to providing local access networks in competition with BT and Kingston. Therefore, it is appropriate to require BT and Kingston to provide access to their local access networks, as this facilitates competition in downstream markets.
- 6.21 Ofcom considers that it is appropriate to impose a Network Access obligation that requires the dominant provider to provide Network Access to its network to Third Parties on reasonable request. Network Access is a fairly broad term and includes interconnection services. It is defined in sections 151(3) and (4) of the Act. Third Party has been defined as a person providing a public electronic communications network or a public electronic communications service. Accordingly, providers of non-public electronic communications networks or non-public electronic communications services will not be entitled to Network Access under the condition.
- 6.22 Where communications providers already provide services using other BT wholesale products, such as IPStream and DataStream, Ofcom considers that this obligation obliges BT to migrate customers from these services to

services within the local access market on fair and reasonable terms, conditions and charges.

- 6.23 Under this condition, Ofcom has the power to make directions. This power will be used, where appropriate, to deal with issues relating to specific forms of Network Access or the particular terms and conditions on which Network Access is provided. This condition requires the dominant provider to comply with any such directions. Any contravention of a direction may therefore result in a contravention of the condition itself and would thus be subject to enforcement action under sections 94-104 of the Act.
- 6.24 Further guidance as to how Ofcom will apply the Network Access obligation can be found in *Imposing access obligations under the new EU Directives*, September 2002 (the "Access Guidelines") and *Interconnection of public electronic communications networks*, May 2003 (the "Interconnection Guidelines"). These can be found at http://www.ofcom.org.uk/static/archive/oftel/publications/ind_guidelines/acce0902.htm and http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/intercon0503.htm respectively.
- 6.25 The condition is imposed in the wholesale local access markets in which BT and Kingston have been found to have SMP and in respect of co-location.

Communications Act tests

- 6.26 Ofcom considers that the condition (Conditions FA1 and FB1 for BT and Kingston, respectively, at Annex 1) meets the tests set out in the Act.
- 6.27 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the condition is aimed at promoting competition and securing efficient and sustainable competition for the maximum benefit of retail consumers by facilitating the development of competition in downstream markets.
- 6.28 Section 47 requires conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. The condition is objectively justifiable, in that it encourages greater access to BT's and Kingston's networks and therefore promotes competition to the benefit of consumers. It does not unduly discriminate, as it is imposed on both BT and Kingston and no other operator has SMP in these markets. It is proportionate, since it is targeted at addressing the market power that BT and Kingston hold in these markets and does not require them to provide access if it is not technically feasible or reasonable. Finally, it is transparent in that it is clear in its intention to ensure that BT and Kingston provide access to their networks in order to facilitate competition.
- 6.29 Ofcom has also taken into account all the factors set out in section 87(4). In particular, the economic viability of building a local access network, that would make the provision of Network Access unnecessary, and the need to ensure that requests for access are reasonable and therefore feasible to provide.

Responses to the May consultation

- 6.30 Most respondents agreed that the requirement to provide Network Access on reasonable request should be imposed on BT and Kingston.

Responses to the August consultation

- 6.31 Kingston has responded that requests for Network Access should be judged against the commercial viability of the associated business case. It expects Ofcom to have due regard to the relevant factors in determining what is the appropriate test of reasonableness for both demand and supply.

Ofcom response

- 6.32 Recital 19 of the AID explains that an obligation to meet all reasonable requests means that requests should only be refused on the basis of objective criteria such as technical feasibility, economic viability or the need to maintain network integrity.

- 6.33 The Access Guidelines state:

“...the Director is likely to consider whether a request is reasonable by considering whether it represents an ‘undue burden’ on the operator supplying it (taking account of any specific action and expense that may be incurred in providing the product). In other words, the Director is likely to consider that a request, which is technically feasible, is reasonable if the SMP operator can reasonably expect to receive at least a reasonable rate of return, on any necessary investments made to supply a product at a price the requesting operator is willing to pay.”

- 6.34 If Ofcom were presented with a dispute over the ‘reasonableness’ of a request, following the failure of commercial negotiations, it would follow the relevant dispute resolution provisions set out in the Act and would have regard to Ofcom’s Access Guidelines (or equivalent published by Ofcom).

Option 2: Requirement not to unduly discriminate

- 6.35 Section 87(6)(a) of the Act authorises the setting of an SMP services condition requiring the dominant provider not to unduly discriminate against particular persons, or against a particular description of persons, in relation to matters connected with the provision of Network Access.

- 6.36 Where dominant providers are vertically integrated, like BT and Kingston, there are incentives for them to provide wholesale services on terms and conditions that discriminate in favour of their own downstream activities. In particular, there are incentives to charge competing providers more for wholesale services than the amount charged to their own downstream activities, thereby increasing the costs of competing providers and disadvantaging their competitors, whilst providing themselves with an unfair competitive advantage. They might also provide services on different terms and conditions, for example with different delivery timescales, which would disadvantage competing providers and in turn consumers.

- 6.37 A requirement not to unduly discriminate is intended, principally, to prevent dominant providers from discriminating in favour of their own downstream

activities and to ensure that competing providers are placed in an equivalent position to the dominant provider's downstream activities.

- 6.38 Ofcom intends to consult on guidelines on interpreting non-discrimination regulatory requirements in early 2005.
- 6.39 Ofcom considers that a non-discrimination condition should be imposed in the wholesale local access markets in which BT and Kingston have been found to have SMP and in respect of co-location. This accords with Recital 17 of the Access and Interconnection Directive, which states that non discrimination obligations ensure that undertakings with market power do not distort competition, in particular where they are vertically integrated undertakings that supply services to undertakings with whom they compete in downstream markets.

Communications Act tests

- 6.40 Ofcom considers that the condition (Conditions FA2 and FB2 for BT and Kingston, respectively, at Annex 1) meets the tests set out in the Act.
- 6.41 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the condition is aimed at promoting competition and securing efficient and sustainable competition for the maximum benefit of consumers, by preventing BT and Kingston from leveraging their market power into downstream markets.
- 6.42 Section 47 requires conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. Ofcom considers that the condition is objectively justifiable, in that it provides safeguards to ensure that competitors, and hence consumers, are not disadvantaged by BT or Kingston discriminating in favour of their own downstream activities or between its own different activities. It does not unduly discriminate, as it is imposed on both BT and Kingston and no other operator has SMP in these markets. It is proportionate since it only prevents discriminatory behaviour that is undue. Finally, it is transparent in that it is clear in its intention to ensure that BT and Kingston do not unduly discriminate.

Responses to the May consultation

- 6.43 Most respondents agreed that the requirement not to unduly discriminate should be imposed on BT and Kingston.
- 6.44 BT considered that Condition FA2.2 is superfluous and that 'matters connected with Network Access' was vague and undefined in scope.

Ofcom response

- 6.45 Ofcom does not consider that Condition FA2.2 is superfluous. Nevertheless, it has decided to delete Conditions FA2.2 and FB2.2. These provisions were only intended to be an example of how FA2.1 and FB2.1 would apply in practice. As noted above, Ofcom intends to consult on guidelines on interpreting non-discrimination regulatory requirements in early 2005. For clarity, Ofcom therefore considers it appropriate to delete Conditions FA2.2 and FB2.2.

- 6.46 Ofcom does not consider that the term "matters connected with Network Access" is vague and undefined in scope. Ofcom notes that this term mirrors the wording of section 87(6)(a) of the Act and Network Access is defined in section 151(3) of the Act. Furthermore, the condition only applies within the wholesale local access markets and to the provision of co-location.

Option 3: Basis of charges

- 6.47 Section 87(9) authorises the setting of SMP services conditions imposing rules regarding the recovery of costs and cost orientation on dominant providers.
- 6.48 In a competitive market, the pricing of services on the basis of the commercial judgements of individual companies could be expected to deliver cost-reflective pricing. However, where competition cannot be expected to provide effective pricing constraints, ex-ante regulation is desirable to prevent excessive pricing. Such intervention should also have as its objective the aim of moving the market towards a position where effective competition is realised. Where the competition problem arises at an upstream stage in the production chain, it is likely to be appropriate to regulate the pricing of wholesale inputs, in order to allow effective competition to develop in downstream markets, rather than control downstream prices.
- 6.49 In markets where competition is not effective, dominant providers are likely to set excessive prices, in order to maximise their profits and, where the dominant provider is vertically integrated, to increase the costs of competing providers. Higher wholesale charges are likely to mean higher retail prices by competing providers and such providers being less able to compete with the vertically integrated dominant provider in downstream markets. In the long-term this may result in market exit.
- 6.50 For the above reasons, Ofcom believes that it is appropriate to regulate the charges that the dominant operator levies for the supply of wholesale local access services. Ofcom considers that there are two plausible approaches that could be used as the basis for setting these charges, namely:
- retail minus; or
 - long run incremental cost plus an appropriate return on capital employed and an appropriate mark-up for the recovery of common costs.

Retail minus

- 6.51 This pricing approach does not set the absolute level of the charges, but instead requires that a sufficient margin exists between each regulated charge and the relevant downstream price, to allow the necessary additional costs of providing the downstream product to be covered. This enables other communications providers to purchase the regulated services and compete effectively against the dominant provider's downstream arm, by ensuring that no margin squeeze takes place.
- 6.52 The retail minus approach should ensure that no discrimination takes place between the downstream arm of the dominant provider and competing providers, while also allowing the dominant provider to set the level of charges according to its commercial judgment. Therefore, if correctly applied,

this pricing rule allows efficient entry at the retail level as, in order to compete with the dominant provider and cover its costs, a competing provider would have to have lower costs for the parts of the service it provides itself.

- 6.53 In addition, retail minus charges provide the dominant operator with some incentive to minimise costs at the upstream level since, if it reduced these costs, the gain thus obtained would not automatically be reflected in the charges set on a retail minus basis.
- 6.54 However, since this approach does not control the absolute level of the charges in this market, it does not ensure that the charges are cost-oriented. Whilst a set of charges based on a retail minus approach might ensure that only providers who could use wholesale local access services more efficiently than the dominant provider would enter the retail markets, it could also serve to protect the dominant provider's revenues rather than exposing them to competition. Moreover, a retail minus approach does not ensure that end customers will face cost-reflective retail charges.
- 6.55 A retail minus approach is generally used in two sets of circumstances:
- where market power is not entrenched and effective competition is likely to develop; or
 - where the market is new and innovative and there could be a risk of deterring investment.
- 6.56 In the former case, retail minus may be preferred to a cost based approach to pricing because, as competition grows stronger, competition would ensure that charges reflect costs. Any excess profits which are earned in the short-term should act as an entry signal. There would be a danger that this entry could be deterred if the regulator set prices at cost, with competition stifled as a result.
- 6.57 In the case of a new and innovative market, retail minus may be preferable to a cost based approach because it is difficult to correctly assess the reasonable return on capital that should be included in cost-based charges. If charges were based on the regulator's estimate of costs, there is a risk that they may not provide a sufficient return for innovative and risky investments and that this may adversely affect incentives to invest and innovate, thereby slowing the development of competition. Hence, Ofcom considers that it is preferable not to attempt to set cost based charges where a market is new and innovative.

Efficient component pricing rule

- 6.58 Even if the circumstances for adopting a retail minus approach were satisfied, it would not be appropriate for setting charges for fully unbundled local loops. Since a fully unbundled loop could be used to provide both narrowband and broadband services, the relevant retail price basis from which the wholesale charge should be derived would involve a combination of retail prices for voice and DSL services. However, a characteristic of BT's current prices for retail narrowband services is that the revenue earned from residential line rentals covers all the incremental costs of access, but makes only a modest

contribution to the recovery of the common costs of access and calls. The majority of these common costs are recovered through call prices¹⁶.

- 6.59 A retail minus based local loop rental charge set using an unbalanced retail line rental would therefore not allow BT to recover all its common costs. It might also permit inefficient entry downstream as operators with higher (call) costs than BT could find it profitable to offer call services because BT sets its call prices to cover the common costs that are not recovered through BT's line rental. Under these circumstances, the efficient component pricing rule ("ECPR") offers an approach which addresses these issues.
- 6.60 This approach is based on retail prices, but takes account of the revenues a dominant provider makes from all the retail services carried over a line and from the provision of the line itself. If these revenues, net of costs, were fully reflected in the charge for a fully unbundled local loop, a dominant provider would be indifferent between using the local loop to provide its own services and providing the local loop to another operator. The ECPR would thus be likely to ensure that only providers who could use local loops to offer retail services more efficiently than the dominant provider would purchase a fully unbundled local loop.
- 6.61 However, in addition to the general drawbacks of using a retail minus approach for LLU charges, the ECPR would require the setting of a separate charge for each fully unbundled local loop, to take into account the specific profits the dominant provider makes on each line. In addition, this charge would have to be changed whenever the profitability of that line varied, which would be impractical.

Long run incremental cost plus a mark-up for common costs

- 6.62 Charges for regulated services can also be set so as to reflect long run incremental costs. This approach consists of setting the charges on a cost-oriented basis, where the costs included in the charges are:
- the forward-looking long run incremental costs efficiently and necessarily incurred by the regulated firm to provide the service to which the charge refers;
 - an appropriate mark-up to allow the recovery of common costs¹⁷; and
 - a reasonable return on the capital employed.
- 6.63 This approach is usually referred to as LRIC+.

¹⁶ The current retail price control (in place until 2006) allows BT to raise line rental charges to cover the possible shortfall in common cost recovery, as call prices are driven down by competition. (For more details see Annex E in the Price Control Review published in March 2000.)

¹⁷ The costs incurred in the production of two or more products can be classified as:

- incremental costs - those costs which are incurred directly as a consequence of producing a specific good or service (i.e. there is an unambiguous relationship between these costs and the good or service in question); and
- common costs – those costs which arise in the production of two or more goods or services, and which are not incremental to the production of any specific one of these goods or services.

- 6.64 Long run incremental costs may be defined in general as the costs that are caused in the long run by the provision of a defined increment of output. It can also be seen as the costs that the regulated firm would avoid if it decided not to provide the regulated services any longer, taking a long run perspective.
- 6.65 Ideally for economic efficiency, charges should be set in a way which encourages buyers to take account of the resource costs of their purchasing decisions. The charges that prevail in a competitive market have this feature. In a regulated environment, LRIC+ based charges are the ones that most accurately reflect the resources consumed by the provision of services and, thus, correspond more closely to the charges that would occur in a fully competitive market. LRIC+ based charges also encourage efficient entry at the network level because they reflect replacement costs, which are the costs that would be faced by a new entrant.
- 6.66 LRIC+ is a widely used regulatory costing technique. Many NRAs in Europe and the FCC in the US employ this approach.

Approach for setting charges

- 6.67 Ofcom considers that the most appropriate basis for setting the charges for the services in the wholesale local access markets in which BT and Kingston have been found to have SMP and in respect of co-location is LRIC+.
- 6.68 Ofcom considers that retail minus is not the appropriate methodology to be adopted in this market, since this approach does not determine the absolute level of the charges. Specifically, Ofcom is of the view that the market for wholesale local access is not moving sharply towards a competitive structure. Rather, competition is developing very slowly and Ofcom believes BT and Kingston will continue to enjoy a persistent position of market power for some time. Hence, competitive forces cannot be relied upon to maintain downward pressure on wholesale local access prices.
- 6.69 Further, Ofcom believes that this is an established market where there is sufficient certainty about the appropriate rate of return BT should earn (see Section 9 below) for Ofcom to be able to set reliable cost-based charges without affecting the incentives to invest. Ofcom notes that it is currently reviewing the pre-tax nominal cost of capital and the results of this analysis are due to be published in January 2005.
- 6.70 Ofcom believes that, since competition in this market is still limited and this is an established market, the main concern is that BT or Kingston might exploit their position of SMP to earn excessive profits. LRIC+ based charges correspond more closely to the charges that would occur in a fully competitive market and also encourage efficient entry at the network level.
- 6.71 The condition requires the dominant provider to set charges on the basis of LRIC+ and comply with any directions that Ofcom may make from time to time under the condition.

Communications Act tests

- 6.72 Ofcom considers that the condition (Conditions FA3 and FB3 for BT and Kingston, respectively, at Annex 1) meets the tests set out in the Act.

- 6.73 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the condition is aimed at promoting competition and securing efficient and sustainable competition for the maximum benefit of consumers by ensuring that charges for wholesale services are set at a level that enable operators to compete downstream.
- 6.74 Section 47 requires conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. Ofcom considers that the condition is an objectively justifiable and proportionate response to the extent of competition in the markets analysed, as it ensures that BT and Kingston are unable to exploit their market power and enables competitors to purchase services at charges that will enable them to compete with BT and Kingston in downstream markets, whilst at the same time allowing BT and Kingston a fair rate of return that they would expect in a competitive market. It does not unduly discriminate, as it is imposed on both BT and Kingston and no other operator has SMP in these markets. Finally, it is transparent in that it is clear in its intention to ensure that BT and Kingston set charges on a LRIC+ basis.
- 6.75 Ofcom considers that the tests in section 88 have been met. As noted above, there is a risk that, in situations where SMP is persistent, pricing will be distorted and above the competitive level, as dominant providers are likely to want to charge excessive prices in order to maximise profits and increase the costs of competing providers. The condition is appropriate in order to promote efficiency and sustainable competition and provide the greatest possible benefits to end users by enabling providers, who compete with BT and Kingston in downstream markets, to buy wholesale services at levels that might be expected in a competitive market.
- 6.76 The extent of investment of the dominant operator has been taken into account as set out in section 88(2), as the obligation provides for an appropriate return on the capital employed to be included in the charges.

Responses to the May consultation

- 6.77 All respondents agreed that charges in the wholesale local access market and in respect of co-location should be set on the basis of LRIC+.

Responses to the August consultation

- 6.78 Kingston considers that an appropriately recent Current Cost Accounting Fully Attributed Cost ("CCA FAC") regime produces virtually identical results to LRIC and avoids the costs and complexity of developing a LRIC model and that therefore it should be allowed to report on this basis.
- 6.79 BT does not consider that LRIC+ should automatically be prescribed to any other future product which may be considered part of the wholesale local access market.

Ofcom response

- 6.80 As set out in Section 10, Ofcom has not imposed financial reporting requirements on Kingston, as Kingston does not currently provide any services in the wholesale local access market. However, if this situation were to change and Ofcom decided that it was appropriate to impose financial

reporting requirements on Kingston, Ofcom would consider the necessity of Kingston reporting on a LRIC basis. In particular, Ofcom would consider its decision in relation to the other markets in which Kingston has SMP where it has accepted Kingston reporting on its cost orientation obligations on a CCA FAC basis¹⁸.

- 6.81 As stated above, Ofcom considers that LRIC+ is an appropriate charging basis for all services within the wholesale local access market.

Transparency

6.82 Section 87(6)(b) of the Act authorises the setting of SMP services conditions which require a dominant provider to publish all such information, and in such manner as Ofcom may direct, for the purpose of securing transparency. Section 87(6)(c) of the Act authorises the setting of SMP services conditions requiring the dominant provider to publish, in such manner as Ofcom may direct, the terms and conditions on which it is willing to enter into an access contract. Section 87(6)(d) also permits the setting of SMP services conditions requiring the dominant provider to include specified terms and conditions in the reference offer. Finally, section 87(6)(e) permits the setting of SMP services conditions requiring the dominant provider to make such modifications to the reference offer as may be directed from time to time.

6.83 This section considers the following transparency requirements:

- requirement to publish a reference offer;
- requirement to notify charges;
- requirement to notify technical information; and
- transparency as to quality of service.

Option 4: Requirement to publish a Reference Offer

6.84 A requirement to publish a reference offer (“RO”) has two main purposes, namely, to assist transparency for the monitoring of potential anti-competitive behaviour and to give visibility to the terms and conditions on which other providers will purchase wholesale services. This helps to ensure stability in markets and, without it, incentives to invest might be undermined and market entry less likely.

6.85 The publication of a RO will potentially allow for speedier negotiations, avoid possible disputes and give confidence to those purchasing wholesale services that they are being provided on non-discriminatory terms. Without this, market entry might be deterred to the detriment of the long-term development of competition and hence consumers.

6.86 The condition requires the publication of a RO and specifies the information to be included in that RO (set out below) and how the RO should be published. It prohibits the dominant provider from departing from the charges, terms and conditions in the RO and requires it to comply with any directions Ofcom may make from time to time under the condition. The condition also requires that Ofcom be given prior notification of any amendments to the RO (other than

¹⁸ Paragraph 8.27 *The regulatory financial reporting obligations on BT and Kingston Communications in markets where SMP has been demonstrated*, 8 April 2004

where such amendments have been imposed by Ofcom). The condition only applies where the dominant provider provides Network Access. Therefore, Kingston will only need to publish a RO as and when it provides Network Access in the wholesale local access market.

- 6.87 The condition also requires the dominant provider to publish information on the use of network components in providing wholesale local access services. Network components for wholesale local access services will be reviewed in the work stream referred to in paragraph 7.35 of the statement entitled *The regulatory financial reporting obligations on BT and Kingston Communications in markets where SMP has been demonstrated*, 8 April 2004. Following this review, it is likely that Ofcom will direct changes to the current network component list to include appropriate network components for wholesale local access services. Once this anticipated direction is finalised, the obligation to publish this information will be more meaningful.
- 6.88 The published RO must set out such matters as:
- a clear description of the services on offer;
 - terms and conditions including charges and ordering, provisioning, billing and dispute resolution procedures;
 - information relating to technical interfaces and points of interconnection;
 - conditions relating to maintenance and quality (service level agreements (“SLAs”) and service level guarantees (“SLGs”));
 - the amount applied to network components;
 - the location of MDF sites;
 - the availability of co-location;
 - conditions for site access; and
 - safety standards.
- 6.89 Ofcom does not intend currently to consider the detail of SLAs and SLGs as part of this market review, as it considers that it is more appropriate for the Adjudicator in consultation with industry to do so. Ofcom will direct BT to implement specific SLAs and SLGs, if it appears necessary and appropriate.
- 6.90 The condition is imposed in the wholesale local access markets in which BT and Kingston have been found to have SMP and in respect of co-location.

Communications Act tests

- 6.91 Ofcom considers that the condition (Conditions FA4 and FB4 for BT and Kingston, respectively, at Annex 1) meets the tests set out in the Act.
- 6.92 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the condition is aimed at promoting competition and securing efficient and sustainable competition for the maximum benefits of consumers by ensuring that providers have the necessary information to allow them to make informed decisions about purchasing wholesale local access services in order to compete in downstream markets.
- 6.93 Section 47 requires conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. The condition is objectively justifiable in that it requires that terms and conditions are published in order to encourage

competition and provide stability in markets. It is proportionate, as only information that is considered necessary to allow providers to make informed decisions about competing in downstream markets is required to be provided. It does not unduly discriminate as it is imposed on both BT and Kingston and no other provider has SMP in these markets. Finally, it is transparent in that it is clear in its intention to ensure that BT and Kingston publish details of their wholesale local access offerings.

Responses to the May consultation

- 6.94 Most respondents agreed that the requirement to publish a reference offer should be imposed on BT and Kingston.
- 6.95 BT wanted some flexibility that enabled it to avoid issuing a new set of offers each time a third party sought variations to the standard terms and conditions. In addition, BT did not consider that it should publish a reference offer for the Network Access it provided to itself. BT considered that the financial information provided under the accounting separation regime should be sufficient and that Ofcom should otherwise rely on its Competition Act or dispute resolution powers. BT also considered that it should no longer have to send out paper copies of reference offers as they were accessible via the internet. Alternatively, it wanted to be able to charge for sending out paper copies.
- 6.96 A number of respondents requested Ofcom to formally specify SLAs and SLGs once the detail has been set out by the Adjudicator.
- 6.97 EasyNet considered that the reference offer should include LLU backhaul.

Ofcom response

- 6.98 Ofcom invited comments in the August consultation on whether BT should be allowed some flexibility in circumstances where a third party seeks minor variations to the standard terms and conditions. Ofcom's final views on this issue are set out below.
- 6.99 Ofcom considers that other communications providers should have visibility of the terms and conditions on which BT provides Network Access to itself. The financial information provided under the regulatory financial reporting regime is not sufficient for this purpose, in particular, as it only contains prices and not other terms and conditions. Further, the intention of this condition is to provide transparency for the monitoring of anti-competitive or unduly discriminatory conduct, which the use of dispute resolution or Competition Act powers would not actually assist in.
- 6.100 Ofcom does not consider that sending out copies of its reference offers is overly burdensome on BT and by doing so it ensures that everyone is able to access this information, including those without access to the Internet. However, Ofcom considers that BT and Kingston should be able to make a reasonable charge for sending out paper copies and therefore Conditions FA4.9 and FB4.8 have been amended accordingly.
- 6.101 Ofcom considers that the Adjudicator together with industry is best placed to both identify and set out the detail of the SLAs and SLGs. Ofcom will however

consider formally specifying them, if it appears appropriate and necessary for it to do so.

- 6.102 LLU backhaul is part of the following markets in the leased lines market review in which BT has been found to have SMP:
- traditional interface symmetric broadband origination with a bandwidth capacity up to and including 8Mbit/s in the UK excluding the Hull Area;
 - wholesale high bandwidth traditional interface symmetric broadband origination with a bandwidth capacity above 8Mbit/s up to and including 155Mbit/s in the UK excluding the Hull Area;
 - wholesale trunk segments at all bandwidths in the UK excluding the Hull Area; and
 - alternative interface symmetric broadband origination at all bandwidths in the UK excluding the Hull Area.

- 6.103 BT is required to publish reference offers for services within the leased lines markets and therefore BT is already required to publish a reference offer for LLU backhaul.

Responses to the August consultation

- 6.104 One respondent does not consider that BT should be given any latitude to negotiate changes to its reference offer without publishing them or offering them to others.
- 6.105 BT requests that Ofcom clarify the need for traffic and network management requirements within the LLU RO as these will be beyond BT's control in this context. BT also requests that Ofcom clarify what is meant by "the amount applied to..." in Condition FA4.2(p).

Ofcom response

- 6.106 Ofcom agrees that BT should not be permitted to vary its standard terms and conditions as a matter of course without publishing them or offering them to others. If BT wishes to make minor changes to its standard terms and conditions without amending its published RO, BT should approach Ofcom in advance of making such changes. Ofcom can then decide on the appropriate course of action. Ofcom notes that the obligation to publish a RO in Condition FA4.1 is prefaced with the words "Except in so far as Ofcom may otherwise consent in writing".
- 6.107 Ofcom agrees that details of traffic and network management are not relevant to services provided in the wholesale local access market and therefore this requirement has been removed from Conditions FA4.2 and FB4.2.
- 6.108 As stated above, Ofcom intends to review the network components for wholesale local access services. Following this review, it is likely that Ofcom will direct changes to the current network component list to include appropriate network components for wholesale local access services. Once this anticipated direction is finalised, the obligation to publish this information in Condition FA4.2(p) will be more meaningful.

Option 5: Requirement to notify charges and terms and conditions

- 6.109 Notification of changes to charges and terms and conditions at the wholesale level can further assist competition by giving advanced warning of changes to competing providers purchasing wholesale services. This is important to ensure that providers have sufficient time to plan for such changes, such as restructuring the prices of their downstream offerings in response to charge changes at the wholesale level. Notification of changes therefore helps to ensure stability in markets and without it incentives to invest might be undermined and market entry made less likely.
- 6.110 Notification of changes has certain disadvantages, particularly in markets where there is some competition. It can lead to a 'chilling' effect where other communications providers follow BT's or Kingston's downstream prices rather than act dynamically to set competitive prices.
- 6.111 On balance, however, Ofcom does not consider that this consideration undermines the imposition of this obligation. In the wholesale local access markets, where SMP remains persistent, there is a high level of reliance by competitors on the provision of wholesale services. The advantages of advanced notification are therefore likely to outweigh any potential disadvantages.
- 6.112 The condition requires the dominant provider to notify changes to the charges and terms and conditions for existing Network Access 90 days in advance and the charges and terms and conditions to be applied to new Network Access 28 days in advance. The obligation does not apply to charges and terms and conditions which are imposed by Ofcom.
- 6.113 The condition is imposed in the wholesale local access markets in which BT and Kingston have been found to have SMP and in respect of co-location.
- 6.114 Ofcom is consulting on a consent to disapply, for a period of one year, the prior notification obligation in respect of a set of deliverables that has been agreed by the Adjudicator, BT and LLU operators participating in the Telecommunications Adjudication Scheme¹⁹. This is because Ofcom considers that the notification periods may delay the introduction of agreed fit for purpose LLU products and processes.

Communications Act tests

- 6.115 Ofcom considers that the condition (Conditions FA5 and FB5 for BT and Kingston, respectively, at Annex 1) meets the tests set out in the Act.
- 6.116 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the condition is aimed at promoting competition and securing efficient and sustainable competition for the maximum benefits of consumers by ensuring that providers have the necessary information sufficiently in advance to enable them to make informed decisions about competing in downstream markets.

¹⁹ *Consent to disapply BT's SMP services conditions that require the notification of charges, terms and conditions and technical information in respect of certain product and processes relating to LLU and LLU backhaul*, 16 December 2004.

6.117 Section 47 requires conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. The condition is objectively justifiable, in that there are clear benefits from advanced notification that ensure that providers are able to make informed decisions within an appropriate time frame about competing in downstream markets. It is proportionate, as 90 days is considered the minimum period necessary to allow competing providers to plan for changes to existing Network Access and 28 days for new Network Access. It does not unduly discriminate as it is imposed on both BT and Kingston and there are no other providers with SMP in these markets. Finally, it is transparent in that it is clear in its intention to ensure that BT and Kingston provide notification of changes to their charges and terms and conditions.

Responses to the May consultation

- 6.118 Most respondents agreed that the requirement to notify changes to charges and terms and conditions should be imposed on BT and Kingston.
- 6.119 BT considered that the condition should include a waiver process whereby a shorter period of notification could be agreed with Ofcom.
- 6.120 Wanadoo considered that material changes to existing network access should be notified 12 months in advance.
- 6.121 A number of respondents considered that new Network Access should also be subject to a 90 day notification period. They also wanted some flexibility built in to the condition that would allow shorter notification periods to be agreed to by industry or Ofcom.
- 6.122 Energis considered that where the Network Access that BT provided to itself differed from that detailed in the notice of the Network Access provided to others, BT should send the notice in relation to the Network Access it provided to itself to other providers as well as to Ofcom. Further, Energis wanted it to be made clear that this provision applied to new Network Access that BT provided to itself.

Ofcom response

- 6.123 In relation to BT's suggestion that there should be a waiver process whereby Ofcom can consent to shorter notification periods, Ofcom notes that Condition FA5.1 already includes the wording "Except in so far as Ofcom may otherwise consent in writing".
- 6.124 Ofcom considers that 90 days should be sufficient notice to allow competing providers to react to changes and, in any event, a 12 month notification period would be overly onerous and potentially impractical for BT to implement.
- 6.125 Ofcom considers that a 28 days notification period for new Network Access provides the appropriate balance between allowing communications providers' sufficient time to react and the potential competition 'chilling' effects described above.
- 6.126 Ofcom considers that it is sufficient for BT to provide the notice for the Network Access it provides to itself to Ofcom only. Ofcom considers that it is

already clear from the wording of Conditions FA5.5 and FB5.6 that this obligation also applies to new Network Access.

Responses to the August consultation

- 6.127 One respondent would like Ofcom to oblige BT to review all of its broadband prices simultaneously, even if the results of such a review would mean no change to some prices. This would assist operators in assessing the commercial opportunity the new pricing afforded them.
- 6.128 BT has requested that Ofcom align the notification periods with those in the wholesale broadband access market review, which would mean 28 days for changes and 28 days for new services.

Ofcom response

- 6.129 Ofcom considers that obliging BT to review all of its broadband prices simultaneously would unnecessarily constrain BT and would potentially delay charge changes to the possible detriment of competition. Ofcom notes, however, that certain BT broadband prices and margins are regulated, thereby constraining BT's ability to change these prices.
- 6.130 Ofcom does not consider that it is appropriate for BT to make changes to existing Network Access with less than 90 days notification. As explained above, Ofcom considers that this period is necessary to allow competing providers to plan for changes. Market conditions in the provision of wholesale local access services and wholesale broadband access services are not the same and therefore there is no reason for the same notification periods to apply. The notification period of 28 days for new wholesale local access services is the same as required for new wholesale broadband access services.

Option 6: Requirement to notify technical information

- 6.131 Under the requirement to publish a RO, BT and Kingston are required to publish technical information. However, advance notification of changes to technical terms and conditions is important to ensure that providers who compete in downstream markets are able to make effective use of the wholesale services provided by BT and Kingston. Ofcom therefore considers that changes to technical information should be published in advance so that competing providers have sufficient time to prepare for them. For example, a competing provider may have to introduce new equipment or modify existing equipment to support a new or changed technical interface. Similarly, a competing provider may need to make changes to their network in order to support changes in the points of Network Access or configuration.
- 6.132 Technical information includes new or amended technical characteristics, including information on network configuration, locations of the points of Network Access and technical standards (including any usage restrictions and other security issues). Relevant information about network configuration includes information about the function and connectivity of points of access, for example, the connectivity of exchanges to end users and other exchanges. Technical information also includes the information provided currently in the Network Information Publication Principles ("NIPP") and

Access Network Facilities (“ANF”) agreement and also includes any other additional information necessary to make use of services provided in the wholesale local access market.

- 6.133 The condition requires the notification of new technical information within a reasonable time period but not less than 90 days in advance of providing new wholesale services or amending existing technical terms and conditions. Ofcom considers that 90 days is the minimum time that competing providers need to modify their network to support a new or changed technical interface or support a new point of access or network configuration. This obligation does not apply to technical terms and conditions, which are imposed by Ofcom.
- 6.134 Ofcom considers that longer periods of notification may be appropriate in certain circumstances. For example, if BT or Kingston were to make a major change to their technical terms and conditions, a period of significantly more than the 90 day minimum notification period may be necessary.
- 6.135 For major changes, for example those triggered by the move to next generation networks (and BT’s “21st Century Network” particularly), Ofcom considers that consultation with the industry would be the best way for BT to meet its obligations in relation to the provision of Network Access on fair and reasonable terms. This could be through the Network Interoperability Consultative Committee (“NICC”) or other appropriate open fora. Therefore, Ofcom considers that the onus is on BT to ensure that it provides longer notification and, where appropriate, consults on major changes so that it complies with the requirement to provide Network Access on fair and reasonable terms, as well as this condition.
- 6.136 The condition is imposed in the wholesale local access markets in which BT and Kingston have been found to have SMP and in respect of co-location.

Communications Act tests

- 6.137 Ofcom considers that the condition (Conditions FA6 and FB6 for BT and Kingston, respectively, at Annex 1) meets the tests set out in the Act.
- 6.138 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the condition is aimed at promoting competition and encouraging service interoperability for the purpose of securing efficient and sustainable competition and the maximum benefits for consumers by ensuring that providers have sufficient notification of technical changes to the local access network to enable them to compete in downstream markets.
- 6.139 Section 47 requires conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. The condition is objectively justifiable in that it enables providers to make full and effective use of Network Access to be able to compete in downstream markets. It does not unduly discriminate as it is imposed on both BT and Kingston and no other operator has SMP in these markets. It is proportionate in that 90 days is the minimum period that Ofcom considers is necessary to allow competing providers to modify their networks. Finally, it is transparent in that it is clear in its intention that BT and Kingston notify technical information and the timeframe for such notification.

Responses to the May consultation

- 6.140 Most respondents agreed that the requirement to notify technical information should be imposed on BT and Kingston.
- 6.141 BT did not consider that it should have to notify standard interfaces 90 days in advance. Further, BT considered that the condition was superfluous given that the European Radio and Telecommunications Terminal Equipment (“RTTE”) Directive required all operators to notify technical information in advance of a service launch.
- 6.142 BT considered that the publication of notifications on its website should be sufficient and that providing technical updates to those that requested them would be an unnecessary administrative burden.

Ofcom response

- 6.143 Even in the case of standard interfaces, Ofcom considers a period of less than 90 days would not be appropriate. For example, standard equipment may be more readily available for standard interfaces, however, providers will still need sufficient time to procure, install and test this equipment. The RTTE Directive only requires Member States to ensure that interfaces relating to telecommunications *terminal* equipment are published in advance. This condition is necessary to ensure that all technical information relating to the wholesale local access market and co-location, beyond telecommunications *terminal* equipment, is notified sufficiently in advance.
- 6.144 Ofcom considers that providing technical updates to those that request them should not be an administrative burden, given that BT can make a reasonable charge for doing so.

Responses to the August consultation

- 6.145 One respondent considers that 90 days will not be sufficient notice for major network changes.

Ofcom response

- 6.146 As stated above, Ofcom considers that longer periods of notification may be appropriate in certain circumstances. BT has obligations to provide Network Access on fair and reasonable terms. Therefore, Ofcom considers that the onus is on BT to ensure that it provides longer notification and, where appropriate, consults on major changes, so that it complies with this obligation, as well as this condition.

Option 7: Transparency as to quality of service

- 6.147 In relation to the requirement not to unduly discriminate, there is the potential for vertically integrated providers, such as BT or Kingston, to provide a quality of service to competing providers that is not equivalent to that provided to themselves. This may disadvantage competing providers and give the provider with SMP an unfair advantage.
- 6.148 Therefore, Ofcom considers that BT should publish data relating to the quality of service it delivers to itself and to other providers. By providing

transparency, BT's competitors should be able to identify where potential discrimination exists. Ofcom considers that this will best be achieved through publication of a set of comparative Key Performance Indicators ("KPIs"), covering those processes which are essential for the development of LLU, particularly provisioning and fault repair.

- 6.149 The overall objective of comparative KPI reporting is not to set an absolute standard for BT's performance, of the type that would normally be contracted in a SLA. The KPIs are not intended to be contractually binding commitments, nor should they be linked to compensation payments. The intention is that they will give an indication of BT's overall performance and ensure that the relative performance BT provides to its competitors is equivalent to the service it provides to itself.
- 6.150 Ofcom has decided to impose a quality of service condition on BT but does not consider it necessary to set any specific comparative KPIs relating to LLU services at this time. The Adjudicator, in consultation with industry, has set target performance indicators in order to ensure that BT implements suitably industrialised products and processes for LLU. Comparative KPIs will be more important once BT's products and processes have been suitably industrialised and at this point the Adjudicator may want to agree a set with BT and industry. The condition allows Ofcom to specify a list of KPIs should it be appropriate to do so in the future.
- 6.151 The quality of service condition is imposed in the wholesale local access market in which BT has been found to have SMP and in respect of co-location.

Kingston

- 6.152 Ofcom has not imposed this requirement on Kingston because Kingston's supply of services in the wholesale local access market is of insufficient volume for the publication of comparative KPI data to be statistically meaningful.

Communications Act tests

- 6.153 Ofcom considers that the condition (Condition FA7 at Annex 1) meets the tests set out in the Act.
- 6.154 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the condition is aimed at promoting competition and securing efficient and sustainable competition for the maximum benefit of consumers by ensuring that BT provides an equivalent quality of service to providers competing with it in downstream markets, as it provides to itself.
- 6.155 Section 47 requires conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. The condition is objectively justifiable because the requirement is intended to ensure that there is no undue discrimination in the quality of service provided. The condition is proportionate because at this time Ofcom does not consider it appropriate to set any specific KPIs but rely on the Adjudicator in consultation with industry to do so. Finally, it is transparent in that it is clear in its intention to require BT to publish data on quality of service.

6.156 Although an equivalent condition is not imposed on Kingston, it does not unduly discriminate as it is only appropriate to impose such a condition where there is sufficient demand for a wholesale service such that the data provided will be statistically meaningful. This is currently not the case in respect of Kingston.

Responses to the May consultation

6.157 With the exception of BT, respondents agreed with imposing a quality of service condition on BT. BT believed that such a condition was not necessary given the requirement not to unduly discriminate. Further, BT did not consider that it would be appropriate for Ofcom to specify individual KPIs, as it had recently agreed a set of KPIs for LLU with industry.

6.158 Other respondents considered that a separate condition on transparency, which allowed them to monitor quality of service, was important to ensure that BT did not discriminate in favour of its downstream businesses. UKCTA believed that such discrimination would not be caught through standard terms and conditions available through a reference offer, as this would not measure the actual delivery of services. Energis considered that KPIs should be linked to internal reference offers and to SLAs/SLGs.

6.159 Bulldog agreed that in theory the no undue discrimination obligation should ensure that SMP operators delivered products and services on terms that were equivalent to the terms on which similar products and services were delivered for their own use. However, it argued that this would not address the issue of how to reach consensus on which specific products and services should be deemed as equivalent, and ensure that SMP operators measured and reported on an appropriate set of metrics to demonstrate compliance.

6.160 Following the appointment of the Adjudicator, the majority of respondents agreed that it would be appropriate for him together with industry, rather than Ofcom or industry alone, to agree and set KPIs. VNL raised concerns as to whether the Adjudicator would have sufficient authority to deal with the issues that cut across a number of different products. UKCTA and Easynet wanted Ofcom to retain the option to mandate KPIs in future if necessary.

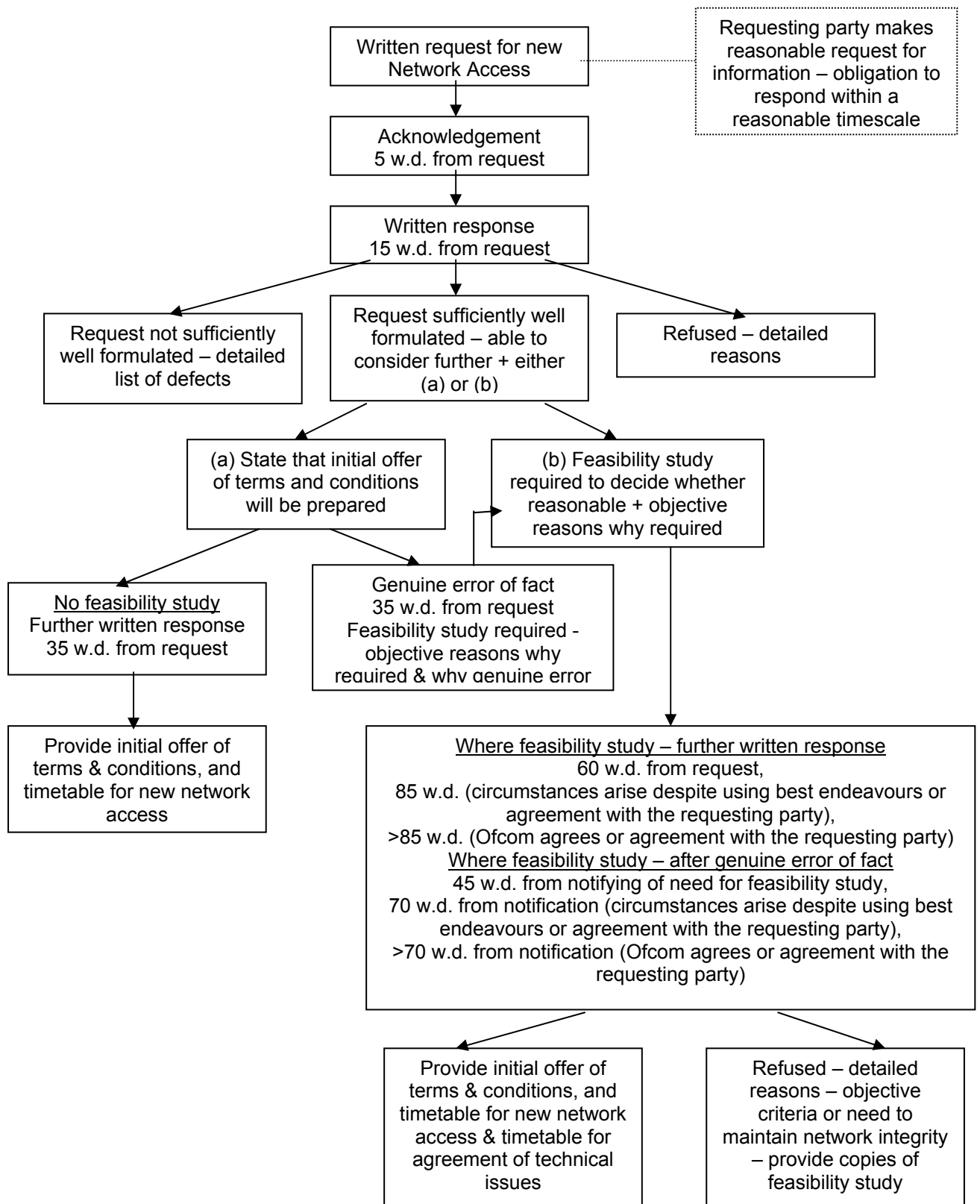
6.161 A number of respondents provided a comprehensive list of KPIs and comments on the current reporting process.

Ofcom response

6.162 Ofcom does not consider it sufficient to rely on the requirement on BT not to unduly discriminate and considers that Ofcom should have the ability to specify comparative KPIs as and when necessary, in order to enable BT's competitors to identify whether potential discrimination may exist. Ofcom considers that the Adjudicator in consultation with industry is best placed both to identify and set out the detail of comparative KPIs in the first instance, and this view has broad industry support. Ofcom will, however, intervene to set them, if it appears necessary and appropriate for it to do so.

Option 8: Process for dealing with requests for new products

- 6.163 Competing providers need clarity and certainty about the process for requests for new Network Access, otherwise known as the statement of requirements (“SOR”) process. Clarity as to the necessary information for the purposes of making a request for new Network Access should speed up the SOR process to the benefit of providers that require wholesale inputs from BT. An improved process will also enable BT to set a reasonable standard for requests and reject inadequate requests. It should also assist with the timely resolution of disputes, since the nature of the dispute should be clearer. Accordingly, Ofcom considers that *ex ante* regulation of BT’s SOR process is appropriate.
- 6.164 Ofcom considers that the process should apply to modifications of existing Network Access, as well as to completely new forms of Network Access. Ofcom would not, however, expect the process to apply to requests for standard Network Access products offered by BT but where the requesting provider does not already have the product. Ofcom also notes that requests for modifications of existing Network Access are likely to be less complex than requests for entirely new forms of Network Access and should be dealt with relatively quickly.
- 6.165 The regulated process set out is designed to accompany the obligation for BT to meet all reasonable requests for Network Access. The requirement to follow the process applies in relation to some modifications to existing forms of Network Access, such as requests for a new pricing structure or the provision of certain billing information. However, the process would not cover general requests for modifications, not associated with specific requests for Network Access, such as requests to modify general contractual terms.
- 6.166 A summary of the condition is as follows and a detailed explanation of this condition is set out in Annex 3:



- 6.167 The condition is imposed in the wholesale local access market in which BT has been found to have SMP and in respect of co-location.

Kingston

- 6.168 Ofcom has not imposed this condition on Kingston because the level of demand for new Network Access in the Hull Area is insufficient for this condition to be appropriate or proportionate.

Communications Act tests

- 6.169 Ofcom considers that the condition (Condition FA8 at Annex 1) meets the tests set out in the Act.
- 6.170 This condition is imposed pursuant to section 87(3) and 87(5) of the Act. Specifically, under section 87(5)(a) Ofcom considers that the provisions of this condition will help to secure fairness and reasonableness in the way in which requests for Network Access are made and responded to, by adding clarity and robustness to the process. In addition, under section 87(5)(b) it considers that the provisions will help to secure that the obligations contained within the requirement to provide Network Access are complied with, within the reasonable periods and at the times required by this condition.
- 6.171 Ofcom has considered the matters set out in section 87(4). In particular, under section 87(4)(d) it considers that it is fair and reasonable to impose this condition in the interests of effective competition in the long term, as improvements to the process for making requests for new Network Access will ensure that communications providers are able to make effective use of BT's network in competition with BT.
- 6.172 Ofcom has also considered the test for setting conditions set out in section 47 of the Act, namely that this condition is objectively justifiable, does not unduly discriminate, and is proportionate and transparent. Ofcom considers that the condition meets these tests. In particular, it is objectively justifiable in that it ensures BT has a reasonable process for dealing with requests for new Network Access to the benefit of communications providers that require Network Access from BT. It does not discriminate unduly against BT because BT has been found to SMP in this market and is therefore able to exploit this position to the potential detriment of its competitors both in this market and in downstream markets. Ofcom does not consider that the obligation should be imposed on Kingston since there is not the same level of demand for Network Access in the Hull Area. The condition is proportionate since without it being put in place, BT's competitors would be less likely to make effective use of BT's network. Furthermore, it is transparent in its intention to ensure that BT has a reasonable process for dealing with requests for new Network Access and in setting out what this process should be.
- 6.173 Finally, Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, Ofcom considers that the provisions will help secure efficient and sustainable competition for the maximum benefit of consumers by enabling other communications providers to make effective use of BT's network in order to offer their own downstream products in competition with BT.

Responses to the May consultation

- 6.174 All respondents agreed that a requirement specifying the process for dealing with requests for new products should be imposed on BT.

Section 7

Local loop unbundling

Introduction

- 7.1 Further to the remedies in Section 6, this section sets out the specific requirements on BT in relation to the provision of LLU services. Ofcom has considered the responses to previous consultations carefully and has taken them into account in making its final decision. Ofcom's final decision to require BT to provide LLU services is unchanged from the August consultation and differs only from the May consultation in respect of the inclusion of sub-loop unbundling.
- 7.2 LLU is a process by which the dominant provider's local loops are physically disconnected from its network and connected to another communications provider's network. This enables competing providers partly or wholly to lease a customer's access line and provide voice and/or data services directly to end users. LLU services include the following:
- metallic path facilities / fully unbundled local loop
 - the provision of access to a competing provider to the copper wires from the customer premises to a BT main distribution frame ("MDF") that covers the full available frequency range, including both narrowband and broadband channels, allowing that competing provider to provide the customer with voice and/or data services over such copper wires;
 - shared metallic path facilities / shared access
 - the provision of access to a competing provider to the copper wires from the customer premises to a BT MDF that allows the competing provider to provide the customer with broadband services (including voice-over-broadband) while BT continues to provide the customer with conventional narrowband communications;
 - sub-loop unbundling
 - the provision of access to a competing provider to the copper wires from the customer's premises to a concentration point or specified intermediate access point in the local network prior to the MDF, that allows that competing provider to provide the customer with voice and/or data services over such copper wires;
 - internal tie cables
 - the provision of links to a competing provider that connect the local loop to the equipment of a competing provider within a BT MDF site;
 - external tie cables
 - the provision of links to a competing provider that connect the local loop to the equipment of a competing provider outside a BT MDF site;
 - site access
 - the provision of access to a competing provider to BT's MDF sites in order for that competing provider to install and operate equipment within those MDF sites;
 - co-location
 - the provision of space at a BT MDF site that enables a competing provider to locate equipment within that MDF site in order to connect to BT's network and purchase LLU services from BT;
 - co-mingling

- a type of co-location where a competing provider's equipment is fitted and operated in the same area as BT could or does house its own equipment, without a permanent barrier between them;
- power
 - the provision of power to a competing provider at a MDF site that enables a competing provider to run its equipment at that MDF site; and
- ancillary services the provision of which is reasonably necessary for the use of the services listed above.

Aims of regulation

- 7.3 The local access network remains one of the least competitive segments of communications networks overall. As set out in Section 4, BT's market share of the wholesale local access market in the UK excluding the Hull Area is around 83%. There are also significant entry barriers to providing a local access network and most competition comes from cable operators whose geographic reach extends to 50% of the population only and is therefore limited in scope.
- 7.4 The provision of LLU services is aimed at stimulating competition in the provision of broadband services, in the absence of network build, and at enhancing competition in areas with only limited local access competition. Although there are other wholesale products that provide competing providers with access to BT's network enabling them to provide downstream broadband services, such as DataStream and IPStream, LLU services are important in that they allow competing providers to innovate, differentiate their product offerings to a greater extent and provide higher bandwidth services, a better range of applications and improved service levels.
- 7.5 Ofcom believes that LLU could play an important role in delivering broadband services over the rest of the decade. Over the next five years, the successful encouragement of greater competition, based on infrastructure investment, combined with continued innovation in access technologies, could enable UK households to benefit from affordable and accessible broadband connections delivering video-quality bandwidth. Ofcom believes that greater competition based on LLU has the potential to help drive widespread adoption of voice over broadband (DSL) services and will facilitate competition in next generation broadband services.
- 7.6 In phase 2 of its strategic review of telecommunications, Ofcom has set out its proposed regulatory approach in respect of broadband. It also sets out Ofcom's proposed key regulatory principles, one of which is to promote competition at the deepest levels of infrastructure where it will be effective and sustainable, which in areas of higher customer densities will mean competition based on LLU. Ofcom believes that current generation broadband is an important bridge to next generation broadband services and therefore competition in current generation broadband is an Ofcom priority.
- 7.7 The regulation imposed by this review and the work of the Adjudicator is intended to provide a positive environment for LLU to succeed in the UK. However, Ofcom recognises that further steps may be necessary to ensure that LLU is ultimately successful.

Current impact of LLU

- 7.8 BT has been required to offer fully unbundled loops since August 2000, the charges for which were determined in December 2000 and rolled-over in March 2002. BT has also been required to offer shared access since December 2000, the charges for which were determined in October 2001. In addition, OfTel issued a number of determinations between 2001 and 2003 covering LLU charging and non-charging issues.
- 7.9 Despite this regulation, take-up in the UK has been limited, with currently only around 26,000 unbundled lines. This is divided roughly 40:60 between fully unbundled loops and shared access. Although LLU was initially used primarily to provide services to businesses, the balance between business and residential is now more even.
- 7.10 On 13 May 2004, BT announced changes to its LLU charges. For shared access, BT reduced its charges by about 35% on 1 June 2004 and a further 25% on 22 September 2004. For fully unbundled loops, BT reduced rental and new provide connection charges by about 15% on 1 June 2004.
- 7.11 Comparing the charge ceilings set out in this statement to the charges compiled by the Commission earlier this year²⁰, UK charges are now more in line with those found elsewhere in Europe and are currently positioned:
- 7th for fully unbundled connection;
 - 13th for fully unbundled rental;
 - 6th for shared access connection; and
 - 1st for shared access rental.
- 7.12 The UK lags behind most other Member States in terms of the number of loops unbundled. When adjusted for size, the comparisons are even starker and the UK can be seen to have the lowest LLU penetration rates (measured as the percentage of all lines that could be unbundled) in the EU. However, it should be noted that the rate of unbundling in the UK has increased over the last 6 months and there are currently around 26,000 unbundled loops in the UK. Further, broadband penetration in the UK is generally comparable to that seen in a number of Member States.
- 7.13 Annex 4 contains a more detailed comparison of take-up and charges in Europe.
- 7.14 The French experience especially offers an indication of the potential for take-up of LLU to accelerate rapidly. Following significant reductions in LLU charges in 2003, over 1 million lines have now been unbundled. Between August and October 2004 alone, approximately 250,000 lines were unbundled in France.
- 7.15 International comparisons should be treated with some caution. For instance, higher take-up of LLU in other countries may be explained by the absence of

²⁰ *European Communications Regulations and Markets 2004* (the “10th Implementation Report”). This report is available on the European Commission’s website at: [http://europa.eu.int/information_society/topics/ecom/all_about/implementation_enforcement/annualreports/10threport/index_en.htm](http://europa.eu.int/information_society/topics/ecom/annualreports/10threport/index_en.htm) The report does not include the ten new Member States which acceded to the EU on 1 May 2004.

alternative infrastructure and alternative wholesale products, such as bitstream access, while differences in prices may be due to differences between the service levels underpinning the relevant charges or different service elements being included within the charges.

- 7.16 Going forward, Ofcom intends to carry out some further and more detailed international benchmarking analyses that will enable Ofcom to understand better the underlying reasons for the differences in charges for LLU services across Member States.

Requirement to provide LLU services

- 7.17 The LLU condition requires BT to provide LLU services as soon as reasonably practicable on reasonable terms to all communications providers who reasonably request such services. The condition provides Ofcom with a specific power to issue directions and requires the dominant provider to comply with any such directions. Any contravention of a direction may therefore result in a contravention of the condition itself and thus be subject to enforcement action under sections 94 to 104 of the Act.

Kingston

- 7.18 Ofcom has not been provided with any evidence to suggest that there is reasonable demand for Kingston to provide LLU services. Therefore, Ofcom does not consider that it would be reasonable or proportionate to impose a specific requirement on Kingston to provide LLU services at this time.
- 7.19 However, as set out in Section 6, Ofcom has imposed a requirement on Kingston to provide Network Access on reasonable request. Ofcom considers that this is sufficient to ensure that Kingston will provide LLU services should a reasonable request be made in the future.

Communications Act tests

- 7.20 Ofcom considers that the condition (Condition FA9 at Annex 1) meets the tests set out in the Act.
- 7.21 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the condition is aimed at promoting competition and securing efficient and sustainable competition for the maximum benefit of retail consumers by enabling providers to compete in downstream narrowband and broadband markets.
- 7.22 Section 47 of the Act requires conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. The condition is objectively justifiable, in that it relates to the need to ensure that competition develops to the benefit of consumers. LLU services are aimed at stimulating competition in the provision of broadband services and at enhancing competition in areas of limited local access competition. Although the condition is only imposed on BT, it does not unduly discriminate, as the obligation on Kingston to provide Network Access on reasonable request is sufficient to ensure that Kingston provides LLU services should a reasonable request be made. The condition is proportionate, in that it is necessary to stimulate competition but is not unduly

burdensome on BT. Finally, it is transparent in that it is clear in its intention to ensure that BT provides LLU services.

- 7.23 In addition, Ofcom has taken into account the factors set out in section 87(4) and, in particular, the economic viability of service providers building alternative local access networks and the feasibility of BT providing LLU services.
- 7.24 Ofcom considers that the tests in section 88 have been met. As noted above, there is a risk that, in situations where SMP is persistent, pricing will be distorted and above the competitive level, as dominant providers are likely to want to charge excessive prices in order to maximise profits and increase the costs of competing providers. The ability to make a direction on charges is appropriate in order to promote efficiency and sustainable competition and provide the greatest possible benefits to end users by enabling competing providers to buy wholesale services at levels that might be expected in a competitive market.
- 7.25 The extent of investment of the dominant operator has been taken into account as set out in section 88(2), as the level of charges will only be set on the basis of LRIC+ and this provides for an appropriate return on the capital employed to be included.

Responses to the May consultation

- 7.26 All respondents agreed that BT should be required to provide LLU services.

Product specification and process issues

Responses to the August consultation

- 7.27 A number of respondents have raised issues in relation to product specifications and processes for LLU services. They comment positively on the work of the Adjudicator but emphasise the need for the timely resolution of issues and the need for Ofcom to intervene if necessary.
- 7.28 Kingston would like confirmation that the Adjudicator will not require Kingston to develop LLU products at this stage.

Ofcom response

- 7.29 Ofcom understands that most of the process issues raised by the respondents, including backhaul, are being dealt with by the Adjudicator and industry. For those process issues not currently being dealt with by the Adjudicator, Ofcom considers that these should be raised with him in the first instance. Ofcom will of course intervene, if it is appropriate and necessary for it to do so.
- 7.30 Ofcom can confirm that Kingston is not required to develop LLU services in the absence of a reasonable request for such services and the Adjudicator cannot oblige it to do otherwise.

Next generation networks

- 7.31 Ofcom recognises that next generation networks (“NGNs”) may have an impact on LLU and has examined this in phase 2 of its strategic review of telecommunications and in more detail in its consultation on *Next Generation Networks – Future arrangements for access and interconnection*, 25 November 2004. Ofcom has stated in both these consultations that it intends to ensure that the regulation of NGNs adheres to Ofcom’s key principles of regulation, as proposed in its strategic review, and, in particular, that Ofcom will continue to promote competition based upon the deepest level of infrastructure competition, where it will be effective and sustainable, and focus regulation to deliver equality of access.

Responses to the August consultation

- 7.32 Viatel has requested that Ofcom ensure that investment in LLU will not be wasted as a result of NGNs.

Ofcom response

- 7.33 Ofcom is aware that it should minimise any unnecessary regulatory risk faced by all providers by providing clarity and predictability as to the regulatory obligations that are likely to apply to NGNs. Ofcom has therefore issued a consultation and is in ongoing discussions with both BT and other providers on NGNs. In its strategic review, Ofcom has also set out its proposals to promote competition based on LLU and its proposals for equivalence.

Section 8

Cost recovery

8.1 The following section sets out Ofcom's decision on the recovery of LLU costs, on the basis that a LRIC+ approach, as set out in Section 6, is used to set charges. Ofcom has considered the responses to the previous consultations carefully and has taken them into account in making its final decision. Ofcom's final decision on cost recovery is unchanged from that set out in the previous consultations.

Principles of cost recovery

8.2 In general, Ofcom's decisions on the recovery of costs are guided by six general principles²¹. These principles are:

- cost causation – costs should be recovered from those whose actions cause the costs to be incurred at the margin;
- distribution of benefits – costs should be recovered from the beneficiaries, especially where there are externalities;
- effective competition – the mechanism for cost recovery should not undermine or weaken the pressures for effective competition;
- cost minimisation – the mechanism for cost recovery should ensure that there are strong incentives to minimise costs;
- reciprocity – where services are provided reciprocally, charges should also be reciprocal; and
- practicability – the mechanism for cost recovery needs to be practicable and relatively easy to implement.

8.3 In general, cost causation is applied first and greater reliance is given to it, on the grounds that economic efficiency is enhanced by requiring parties to pay for those costs which they directly cause. The other principles are then considered, to see the extent to which these lead to an adjustment to the cost recovery scheme implied by the application of the principle of cost causation.

8.4 These six principles have been applied to the costs incurred by BT to provide LLU services to derive conclusions on how these costs should be recovered.

Costs of providing LLU services

8.5 The costs incurred by BT in providing LLU services can be categorised according to their economic characteristics. It is possible to distinguish two categories of LLU costs, namely:

- system set-up costs. Costs incurred by BT to develop and implement the systems and software necessary to provide LLU services of a reasonable quality that do not vary with the unbundling of an additional loop. These costs include the costs of setting up dedicated operational support

²¹ These principles were endorsed by the Monopolies and Mergers Commission (MMC) in their 1995 report on number portability - *Telephone Number Portability: A report on a reference under s13 of the Telecommunications Act 1984* (MMC, 1995)

systems (“OSS”) and the costs of developing and rolling out an automatic testing system (“TAM”); and

- per service costs. Costs incurred by BT to unbundle individual local loops and provide other LLU services that include one-off costs that are incurred by BT every time an additional LLU service is requested and on-going costs that are incurred by BT to maintain the quality of the LLU services provided. One-off costs include the costs of MDF jumpering, the installation and jointing of internal tie cables and some wholesale costs. On-going costs include the costs of loop fault repair, drop wire renewal and repair, depreciation of ducts and copper pairs, ongoing TAM and OSS costs and some wholesale costs.

Application of the principles of cost recovery to LLU system set-up costs

Cost causation

- 8.6 As noted above, set-up costs do not vary with the number of individual lines that are unbundled. Moreover, it is debatable whose actions cause these costs to be incurred. On the one hand, it can be argued that BT has incurred these costs due to the activities of those providers wishing to have wholesale access to its local loops and, therefore, that these providers should bear the totality of these costs. On the other hand, it can be argued that the costs arise because of EU regulatory requirements flowing from BT’s SMP in the market for wholesale local access and therefore BT should also contribute to cost recovery.
- 8.7 In these circumstances, Ofcom is of the view that the cost causation principle does not provide decisive guidance on the allocation of LLU system set-up costs. This suggests that the other principles should be carefully considered before reaching a conclusion on the recovery of LLU system set-up costs.

Distribution of benefits

- 8.8 This principle suggests that LLU system set-up costs should be recovered from all those who benefit from the development of LLU. Wholesale access to BT’s local loops is expected to foster competition in the provision of broadband services, increasing the choice of services available to consumers, as well as generating pressure on the level of prices and on the quality of these services. Hence, all broadband customers can be expected to benefit from this increased competition.
- 8.9 Application of this principle therefore suggests that all customers who use broadband over the economic life-time of the LLU systems, not just those served by BT’s unbundled local loops, benefit from the increased competition and should contribute towards the costs incurred by BT to make LLU available, i.e. the LLU system set-up costs. The alternative of recovering all of the LLU system set-up costs from only LLU customers would mean that a group of customers would benefit from the increased competition but would not contribute towards these costs.
- 8.10 It can also be argued that the benefits from the development of LLU systems today will flow not just to current DSL users, but also to future users as well. Thus, even where customers take up DSL services after the systems

currently used to introduce LLU have been replaced, they will benefit from the earlier development of LLU-based competition. It may then be appropriate for all these DSL customers to contribute to the recovery of the set-up costs associated with those LLU systems.

- 8.11 Hence, Ofcom believes that there is a case for recovering LLU system set-up costs across a wider base of customers than those actually utilising DSL in the short term. One possible approach to this is to extend the period over which LLU set-up costs are recovered.
- 8.12 The provision of voice services using LLU, including voice over DSL, may extend the competitive impact of LLU to narrowband voice users. However, only if the provision and take-up of voice services using LLU became widespread could LLU have a significant impact on competition in the provision of narrowband voice services. Therefore Ofcom considers that it would not be appropriate, at this time, to assume such a significant narrowband impact will arise from LLU over the period considered in this review.

Effective competition

- 8.13 To guarantee the development of sustainable downstream competition, the cost recovery scheme for LLU should be competitively neutral.
- 8.14 The principle of effective competition suggests that LLU system set-up costs should be recovered in a way that ensures that a level playing field is guaranteed for all providers of DSL services, independently of the means they use to provide these services.
- 8.15 Since BT DSL and LLU system set-up costs are likely to be different, achieving a level playing field would involve pooling LLU costs with equivalent system set-up costs incurred by BT to provide DSL services (BT will use the same functionality as an LLU operator in the provision of DataStream and IPStream) and then sharing these costs across all local loops used to provide DSL services. This approach (pooling of costs and spreading) would eliminate any differential between the costs for BT DSL and LLU. The alternative of only recovering system set-up costs from LLU lines would mean that LLU operators would be paying a higher cost per customer to recover system set-up costs than BT. This would have the effect of undermining competition resulting from LLU.
- 8.16 The principle of effective competition also suggests that, to avoid the creation of barriers to the take-up of LLU services, an appropriate balance should be struck between costs recovered in the up-front connection charge and costs recovered in the recurrent rental charge.

Cost minimisation

- 8.17 This principle implies that incentives for cost efficiency should be built into the charging mechanism for LLU services. To the extent that BT chooses the particular processes used to deliver LLU services, its choice causes a particular set of costs to be incurred. Hence, BT should be provided with incentives to minimise LLU system set-up costs. One way to provide BT with

such incentives would be for BT to bear all or some of these costs²². If BT did not contribute to these costs, it would have little incentive to minimise these costs, particularly as increasing such costs would affect the viability of the business case of its competitors and reduce the probability of increased competition in associated downstream markets.

- 8.18 On the other hand, there should also be an incentive on LLU operators to avoid inefficiently expensive solutions, as they have some ability to influence the technical specification to be implemented (e.g. for automatic testing). Such incentive would be absent if BT were to bear all the costs. Therefore, the principle of cost minimisation points towards the recovery of these costs being shared between BT and the LLU operators and hence recovery across all DSL lines.

Practicability

- 8.19 The practicability principle suggests that the mechanism for cost recovery needs to be practicable and relatively easy to implement.
- 8.20 As discussed above, on the grounds that all the beneficiaries from the introduction of LLU should contribute to its system set-up costs, these costs should be borne by all broadband users. However, it would be difficult in practice to share LLU system set-up costs with providers who do not purchase any relevant DSL service from BT e.g. cable operators. Hence, the practicability principle suggests that recovery of LLU set-up costs should be limited to DSL lines.
- 8.21 In addition, the need to spread these one-off costs over the economic life of the assets implies that LLU system set-up costs have to be recovered from an uncertain volume of loops. Volumes of DSL lines may be easier to predict going forward.
- 8.22 Hence, Ofcom considers that the principle of practicability suggests that the most appropriate base from which to recover LLU system set-up costs are all DSL lines.

Reciprocity

- 8.23 The reciprocity principle does not provide any useful indication in this case, because LLU services are not provided reciprocally.

Conclusions on how LLU system set-up costs should be recovered

- 8.24 Table 8.1 summarises the application of the principles of cost recovery to LLU system set-up costs.

²² At the same time, an approach which pooled the equivalent costs associated with BT DSL and LLU would dampen BT's incentives to minimise the costs associated with self-provision.

Table 8.1: Application of the principles of cost recovery to LLU system set-up costs

Principle	Suggested mechanism of recovery
Cost causation	Unclear
Distribution of benefits	Recovery over all broadband lines
Effective competition	Recovery over all DSL lines (pooling costs with equivalent BT DSL system set-up costs)
Cost minimisation	Recovery over all DSL lines
Practicability	Recovery over all DSL lines
Reciprocity	No suggestion

8.25 Hence, Ofcom's view is that, if possible, LLU system set-up costs should be pooled together with equivalent BT DSL system set-up costs and recovered across all local loops used to provide DSL services. Application of these principles also suggest that the up-front charges should be set so as not to create a barrier to efficient entry. Hence, depending on the level of these costs, it may be appropriate to recover a share of the one-off system set-up costs from the rental rather than connection charges.

Application of the principles of cost recovery to LLU per service costs

Cost causation

8.26 The principle of cost causation provides clear guidance on the recovery of LLU per service costs since these arise directly as a result of incremental requests for and usage of LLU services. Application of the principle then suggests that costs associated with providing an individual LLU service should be met by the operator requesting that service.

Distribution of benefits

8.27 As the main beneficiaries of per service LLU activities are the customers of the LLU operators themselves, the principle of distribution of benefits suggests that they should bear these costs. The marginal benefit derived by DSL users generally from the take-up of an additional LLU service is likely to exist but would be relatively small. Therefore, this principle supports a conclusion that the operator taking up the particular LLU service should bear all the associated per service costs.

Effective competition

8.28 From a downstream perspective, this principle points towards a charging mechanism that guarantees a level playing field for all DSL providers. From this perspective, the recovery of LLU per service costs from LLU operators only may not deliver this objective, as BT does not always incur equivalent

per service costs to enable DSL services over its local loops²³. For example, BT can employ its PSTN testing system to test faults on loops that are also used to provide BT DSL services and, therefore, it does not have to incur the cost of jumpering loops to the LLU test system, as is the case for fully unbundled loops.

- 8.29 If LLU operators face higher charges than BT itself to obtain local access, the differences in their respective cost bases puts the former at a competitive disadvantage. This suggests that where LLU per service costs differ from those incurred by BT for equivalent DSL activities, it may be appropriate to intervene in order to guarantee competitive neutrality by pooling LLU costs and equivalent BT DSL costs and recovering them across all DSL lines.
- 8.30 This principle also suggests that, to avoid the creation of barriers to the take-up of LLU services, an appropriate balance should be struck between costs recovered in the up-front connection charge and costs recovered in the on-going rental charge.

Cost minimisation

- 8.31 This principle suggests that cost recovery should be structured so as to provide incentives towards cost efficiency. To the extent that BT uses different processes and incurs different costs to provide loop-based services for BT DSL and LLU, its incentives to minimise these costs are currently limited. Therefore, this principle suggests that where LLU per service costs differ from those incurred by BT for equivalent activities, these costs should be pooled and recovered across all DSL lines²⁴.

Practicability

- 8.32 The principle of practicability requires that any cost recovery scheme adopted should be easy to implement. This principle provides little guidance with regard to LLU per service costs, apart from suggesting that the costs relevant to assets whose economic life is longer than the minimum contract period for the relevant LLU services should, where possible, be capitalised and recovered through the rental charge. This is to avoid a complicated system of disconnection charges and rebates, were the assets to revert to BT.

Reciprocity

- 8.33 This principle does not provide any useful guidance in this case, since unbundled local loops are not provided reciprocally.

²³ Such differences sometimes arise due to the efficiencies BT enjoys because it is vertically integrated and because of the economies of scale and scope it enjoys. In other cases, they arise because BT has chosen to deploy different processes to support BT DSL and LLU services.

²⁴ However, the application of the equalisation principle may dampen BT's incentives to minimise the costs associated with the provision of loops for BT DSL. It may also dampen customers' incentives to make cost-minimising choices between BT DSL and LLU.

Conclusions on how LLU per service costs should be recovered

8.34 Table 8.2 summarises the application of the principles of cost recovery to LLU per service costs.

Table 8.2: Application of the principles of cost recovery to LLU per service costs

Principle	Suggested mechanism of recovery
Cost causation	Recovery over LLU lines
Distribution of benefits	Recovery over LLU lines
Effective competition	Recovery over all DSL lines (where costs differ from those incurred by BT for equivalent activities, pool costs with equivalent BT DSL per service costs)
Cost minimisation	Recovery over all DSL lines (where costs differ from those incurred by BT for equivalent activities, pool costs with equivalent BT DSL per service costs)
Practicability	No suggestion
Reciprocity	No suggestion

8.35 Overall, the application of the six principles to LLU per service costs provides a less clear cut answer on the appropriate structure for the relevant cost recovery scheme compared to LLU system set-up costs. On balance, Ofcom also considers that where LLU per service costs differ from those incurred by BT for equivalent DSL activities, these may potentially be pooled together with equivalent BT DSL costs and recovered across all DSL lines. Where costs do not differ, this approach is clearly irrelevant. Ofcom notes that where system set-up costs are pooled and spread and per service costs are not, BT has an incentive to adopt solutions which have relatively high per-service costs and relatively low system set-up costs, even where this is not the lowest overall cost alternative. This could lead to BT preferring manual processes when industrialisation would be more efficient.

Responses to the May consultation

8.36 Most respondents agreed that both system set-up and per service costs should be pooled with LLU equivalent DSL costs, and spread across all DSL lines, in order to achieve the right incentives for the promotion of efficient and effective competition.

8.37 Wanadoo and Bulldog considered that costs should be spread across all local loops.

8.38 BT considered that any form of spreading would not result in competitive neutrality, as BT would face higher input costs and would be effectively

subsidising other providers. The costs of this would be borne by BT's shareholders and not its customers. Further, BT considered that the cable companies should contribute to the costs of LLU through a universal service fund.

Ofcom response

- 8.39 Ofcom would consider spreading costs across all local loops, if all local loop users benefited from the development of LLU. As discussed above, the provision of voice over DSL services using LLU may extend the competitive impact of LLU to narrowband voice users. However, the take up of this would need to be widespread for any significant impact to occur. As these technologies are currently still in the early stages of development, Ofcom does not consider it appropriate to recover costs across all local loops, whereby narrowband users contribute to their recovery.
- 8.40 As discussed above, Ofcom believes that, where possible, the pooling and spreading of costs is appropriate in order to eliminate any asymmetry between BT and other providers and to achieve a level playing field for them to compete. Ofcom does not consider it appropriate or practical at present for cable operators to contribute to the costs of LLU.

Responses to the August consultation

- 8.41 BT has repeated the arguments set out above in its response to the May consultation, that only LLU operators should pay for system set-up costs and that if costs are shared then a universal service fund should be used.

Ofcom response

- 8.42 Ofcom considers that it has adequately dealt with BT's comments in the paragraph above.

Section 9

Determining charge ceilings

Introduction

9.1 The following section sets out Ofcom's decision on charge ceilings. Ofcom has considered the responses to the previous consultations carefully and has taken them into account in making its final decision. The following sets out the changes to Ofcom's approach to determining charges from that set out in the August consultation:

- 13% cost of capital, as opposed to 13.5%;
- recovery period up to 2008/09, as opposed to up to 2007/08;
- forecast volumes of 3.5m, as opposed to 2.5m;
- application of a 10% churn rate to calculate the number of gross connections;
- a CVE measure has been applied to indirect wholesale costs;
- wholesale costs have been re-allocated on the basis of an equal cost per fully unbundled or shared access line, as opposed to weighted 60:40 towards fully unbundled loops; and
- fully unbundled TAM costs have not been pooled with BT DSL TAM costs but have been spread across all DSL lines including shared access lines.

9.2 Determining charge ceilings for specific LLU services will constrain BT's ability to set excessive charges that could hinder the development of competition. Despite BT's charge reductions, Ofcom still considers it appropriate to set charge ceilings in order to ensure that BT charges are not excessive and are also both certain and transparent.

9.3 As set out in the August consultation, Ofcom has decided not to determine the exact level of charges (as proposed in the May consultation) but to set a ceiling for each charge. This is because the precise scope of cost reductions is uncertain and depends on the extent to which LLU volumes increase from the current low base. By setting a charge ceiling, BT has the flexibility to charge below the ceiling if costs move over the period in which the ceiling is in place. If Ofcom were to determine the precise level of a charge, this would reduce BT's flexibility.

9.4 Ofcom has set charge ceilings for the following LLU services:

- metallic path facilities/fully unbundled local loop –connection (new provide and transfer) and disconnection;
- shared metallic path facilities/shared access – rental, connection and disconnection;
- internal tie cables – rental, connection and jointing;
- external tie cables – rental and connection; and
- power.

9.5 The charge ceilings will apply as of 1 January 2005 and are set out in Tables 9.2 and 9.3.

- 9.6 In the May consultation, Ofcom set out its intention to set the charge for fully unbundled rental. As set out in the August consultation, Ofcom does not however consider that it is appropriate to determine this charge at this time. This is because a very high proportion of the cost-stack for this charge is determined by the cost of laying and maintaining the copper loop. Ofcom is currently conducting a review of the costs of BT's copper loop to address issues such as the valuation of assets, the attribution of costs and the appropriate recovery approach. Ofcom published an initial consultation on principles entitled *Valuing copper access* on 9 December 2004 and will consult on more detailed proposals in Spring 2005. Ofcom will determine the fully unbundled rental charge ceiling on completion of this review. In the meantime, BT's voluntary charge reduction to £105.09 p.a. rental for such loops remains the applicable price.
- 9.7 The May consultation also set out Ofcom's intention to set charge ceilings for migrations from DataStream/IPStream to fully unbundled/shared access. The Adjudicator has made significant progress in establishing the automated processes to be put in place for migrations and will pass relevant information on to Ofcom, as soon as it is available, in order that Ofcom can commence work on setting charge ceilings.
- 9.8 Ofcom has decided not to determine charges for the conversion of a shared access line to a fully unbundled line, as this again is an area which the Adjudicator is working on. Ofcom will commence work on setting a ceiling for these charges as soon as relevant information on automated conversion processes becomes available. Ofcom mistakenly included charge ceilings for conversions in Table 9.3 and Schedule 1 of the Notification of directions in the August consultation, which have now been removed.

Responses to the May consultation

- 9.9 Most respondents considered that Ofcom should determine charges in spite of the actual and proposed charge reductions by BT, in order to provide certainty and assist transparency.

Ofcom response

- 9.10 Ofcom agrees that in the interests of certainty and transparency it is appropriate to determine charge ceilings.

Phase 2 LLU charge ceilings

- 9.11 Ofcom plans to consult on a second set of LLU charge ceilings in Spring 2005. Based on the responses received to the previous consultations, Ofcom will consider setting charge ceilings for co-location, backhaul and migration services. Ofcom understands the importance of these charges to the business case of LLU operators and will endeavour to examine these charges in a timely manner. However, as stated above, where the Adjudicator is looking at automated processes for such services, Ofcom will need to wait for relevant information to be available from BT and the Adjudicator before it commences setting charge ceilings for these services.
- 9.12 It should be noted that the requirement to base charges on LRIC+ applies to all services within the wholesale local access market, co-location and LLU

backhaul. Therefore, BT is required to ensure that the charges for all these services are cost oriented, even where no charge ceiling is in place.

- 9.13 Telefonica has requested that Ofcom determine sub-loop unbundling charges as a matter of priority in order to provide regulatory certainty. Ofcom is not aware of significant demand for sub-loop unbundling services and therefore does not consider it necessary, at present, to determine these charges. However, Ofcom will consider determining charge ceilings for sub loop unbundling should it appear necessary for it to do so in the future.

Margin between LLU and DataStream

- 9.14 A number of respondents to both the previous consultations have expressed their concerns in respect of the margin between LLU and DataStream and the need for early regulation of this in order to stimulate investment.
- 9.15 Ofcom is currently considering whether any specific ex ante regulation of the margin between LLU and DataStream is necessary. Ofcom notes that the wholesale broadband access market will be reviewed in 2005 and this may be a more appropriate platform to consider this issue. In the meantime, BT remains subject to the Chapter II prohibition in the Competition Act 1998 and Article 82 of the EC Treaty.

Geographically averaged charges

- 9.16 Regulated charges can be geographically averaged or vary across the geographic market to reflect differences in the costs of providing services in different areas. Currently, charges for LLU services are geographically averaged.
- 9.17 De-averaged charges could more precisely reflect the costs incurred in providing LLU services in each area and can provide better signals for investment decision making, as an operator faces a more accurate measure of the costs associated with the decision to buy LLU services from BT.
- 9.18 However, there are significant practicality and predictability issues associated with de-averaging charges.
- 9.19 On balance, Ofcom considers currently that charges for LLU services should be geographically averaged. However, Ofcom is further considering the issue of de-averaged charges in phase 2 of its strategic review of telecommunications.

Methodology and assumptions

- 9.20 The following section sets out the methodology and assumptions that Ofcom has used in deriving the charge ceilings:
- LRIC+ methodology;
 - recovery period;
 - forecast volumes; and
 - bad debt.

LRIC+ methodology

9.21 In Section 6, Ofcom has set out that charges for the provision of Network Access in the wholesale local access market should be based on LRIC +. In determining the ceilings for these charges using this methodology, it is necessary to:

- assess the relevant long run incremental costs;
- determine the amount of common costs that should be included; and
- calculate the appropriate rate of return on capital employed that should be allowed.

Estimation of the long run incremental costs

9.22 Ofcom has assessed the long run incremental costs of LLU services starting from the actual and forecast costs provided by BT. However, Ofcom considers that the charges should include only the incremental costs that have been or will be efficiently and necessarily incurred by BT in providing these services. To assess these costs, Ofcom has used information of BT's actual and forecast costs, but has made adjustments where necessary. These adjustments have been made to ensure that:

- only relevant costs are included;
- no double counting takes place; and
- costs are based on efficiently incurred cost levels.

9.23 Ofcom has also examined the impact of economies of scale and scope.

9.24 A significant portion of the incremental costs associated with LLU are direct labour costs where there are limited economies of scale. There is an issue as to the extent to which indirect costs associated with these labour costs, such as LLU management costs, are also incremental to LLU provision. In some cases, a mark-up for indirect costs will be appropriate but this may be lower than conventional accounting allocations based on average mark-up rates, especially where large increases in volumes take place due to the ability to exploit economies of scale.

9.25 Where it is appropriate to include indirect costs, Ofcom will estimate them by identifying a cost/volume elasticity ("CVE"). This elasticity measures the expected percentage increase in costs that would arise from a given percentage increase in LLU volume. In other words, the CVE reflects the extent to which costs change with a change in volumes. Ofcom expects that this would typically be significantly less than 1, due to the economies of scale and scope in the provision of many indirect services where it is possible to share support functions, even where activities are not otherwise related²⁵.

Mark-up for common costs

9.26 In order to ensure that BT is allowed to recover legitimately incurred common costs, a mark-up over LRIC is generally required. Ofcom considers that the

²⁵ This approach has been used in determining the charges for WLR (see *Wholesale Line Rental: Ofcom's conclusions*, 11 March 2003), where the CVE for costs was assumed to be equal to 0.5.

level of LLU charges should not undermine the recovery of these costs. Hence, to the extent that common cost recovery has not been allowed for elsewhere in other charges, a contribution to the recovery of the relevant common cost has been included²⁶.

- 9.27 At the same time, it has been important to ensure that charging arrangements do not allow common costs to be recovered twice. Any contribution to common costs included in the cost of specific activities (for example the contribution to common overheads included in labour rates) must be consistent with the recovery of these costs that takes place through other charges, in particular those included in the network charge controls.

The common costs of the loops

- 9.28 Some of the costs associated with the provision of a local loop are invariant to the amount of bandwidth that is actually used, or to the number of services run over that loop. These costs are incremental to the whole loop, but are common to the high and low frequency portions of it.
- 9.29 When a loop is fully unbundled, the allocation of these costs between the low and high frequency portions is irrelevant, as they are both utilised and paid for by the same communications provider. However, when a loop is shared, the split of these costs between the high and low frequency portions becomes material, since the charges set for each portion are borne by different providers²⁷.
- 9.30 If some of the common costs of the loop were recovered from the LLU charges for shared access, BT would need to ensure that appropriate reductions were made to BT's retail or WLR narrowband charges so that there was no over recovery of costs. Ofcom considers that any split of these costs between the high and low frequency portions of the loop other than 100% of common costs being recovered from the narrowband channel would be difficult to implement. Further, the allocation of these common costs is irrelevant for the customer using the line to support both high and low bandwidth services (provided there is no double recovery), as that customer will pay the same total amount however these costs are attributed.
- 9.31 Therefore, Ofcom considers that the costs common to the low frequency and high frequency portions of a loop should continue to be entirely allocated to the low frequency portion (i.e. voice telephony).
- 9.32 Ofcom is aware that this arrangement (as would any other in which the common costs of the loop are not totally allocated to the higher frequency portion) may give rise to a cost-recovery issue if broadband customers decide to cease their voice telephony subscriptions with BT or a WLR operator. Ofcom considers that, when a customer with a shared loop decides not to take voice services, the loop will then be treated as fully unbundled in respect

²⁶ Hence, the network costs that are common between conveyance and access are recovered from fully unbundled loops through an equal proportionate mark-up in line with the treatment given to these costs in the network charge controls.

²⁷ An operator purchasing shared access is only purchasing the high frequency portion of the local loop.

of charging. Therefore, the common costs would be attributed to and recovered from the LLU operator. This might give rise to process issues since it requires BT to change the charges payable by an LLU operator, as a result of circumstances that may be outside the LLU operator's control. Ofcom is of the view that this is potentially an appropriate issue for the Adjudicator to consider.

Responses to the August consultation

- 9.33 Telefonica are concerned over the fact that when a user ceases their voice line with BT and the shared access line becomes a fully unbundled line, they have no control over this.

Ofcom response

- 9.34 Ofcom considers that this is the most appropriate way to deal with a user ceasing their voice line with BT at present. However, as stated above, it may be appropriate for the Adjudicator to consider related process issues further.

Rate of return on capital employed

- 9.35 The appropriate rate of return that should be included in the charges for LLU services is the cost of capital BT is currently allowed on its regulated network activities. This cost of capital is equal to the weighted average cost of capital ("WACC") for the activities assessed using the capital asset pricing model ("CAPM").
- 9.36 In calculating the WACC, it is necessary to consider whether it is appropriate to use a pre-tax or post-tax rate. Although analytical purity would suggest using after-tax cash flows and discount rates, the practical difficulties of calculating the tax accounting relevant to only a small part (local access) of a large organisation, such as BT, are such that Ofcom believes that using pre-tax cash flows and pre-tax discount rates is a suitable approach.
- 9.37 As such, Ofcom for the purpose of this market review has estimated BT's pre-tax nominal cost of capital to be approximately 13% in line with that used in relation to partial private circuits²⁸. However, Ofcom is currently reviewing the pre-tax nominal cost of capital and the results of this analysis are due to be published in January 2005. Unless any change to the cost of capital would be likely to result in a material change to the charge ceilings, Ofcom will not reset the charge ceilings set out in this statement.

Responses to the May consultation

- 9.38 ntl considered that Ofcom should set the regulated price for LLU at the LRIC of an efficient new entrant to the local access market, as it considered that the replacement costs that new entrants faced were likely to be higher than those of the incumbent operator.

Ofcom response

- 9.39 As set out in Phase 2 of its strategic review of telecommunications, Ofcom considers that much of BT's current generation copper access network is not

²⁸ *Partial private circuits charge control*, 30 September 2004

effectively competitive and that large scale entry by competing providers into access infrastructure is unlikely in the medium term. As a result the emphasis must therefore be on protecting consumers rather than encouraging efficient entry by competing access network providers. It is the implications of this finding that are examined in Ofcom's current consultation on valuing copper access, which considers using the costs of a hypothetical efficient operator to determine the copper loop costs. Ofcom's view is that, if these costs are used, it could potentially lead to a downward adjustment of BT's costs, not an upward adjustment (see Section 7 of the *Valuing copper access* consultation document).

Responses to the August consultation

- 9.40 ntl have repeated their arguments made in response to the May consultation, that Ofcom should use the LRIC of an efficient new entrant, rather than BT's, to set charges. Further, ntl consider that the cost of capital should be based on that of an efficient new entrant rather than BT, as this would result in a more accurate cost comparison for entrants deciding to build or buy.
- 9.41 A number of respondents consider that the cost of capital used is too high and that Ofcom should recalculate the equity risk premium for investments in the local loop using figures derived only from utility equities.

Ofcom response

- 9.42 Ofcom considers that it has adequately set out its current position in relation to using the LRIC of an efficient new entrant in the paragraph above.
- 9.43 Ofcom is currently reviewing the cost of capital for the access network. In respect of using figures derived only from utility equities, it should be noted that the Equity Risk Premium ("ERP"), used in calculating the cost of capital, is an economy-wide parameter, reflecting the risks inherent in investing in a well-diversified portfolio of stocks. Activity-specific risk should not be modelled via variations in it. The cost of capital review will consider whether a 5% ERP is appropriate and whether different betas, also used in calculating the cost of capital, should be used for different parts of BT.

Recovery period

- 9.44 Ofcom considers that the appropriate recovery period is up to 2008/09 (financial year to the end of March), except where otherwise stated.
- 9.45 When LLU charges were originally set in 2000 and 2001, the recovery period was up to 2005/06 and the volume forecasts used predicted a high level of demand. As such, the costs of designing and implementing LLU systems were based on large volumes. However, this demand did not materialise and there were extremely small volumes for 2001/02, 2002/03 and 2003/04.
- 9.46 As such there has been little activity on the LLU systems over this time and the amount of wear and tear on these systems has been much less than originally assumed, in essence extending the life of the assets. In addition, it is envisaged that there will be further development of these systems, for which an allowance has been made, that suggests the systems are likely to still be in use beyond 2005/6.

- 9.47 If Ofcom used a recovery period up to 2005/06, the costs incurred in designing and implementing the systems for much larger volumes would be recovered over far smaller ones, as this period would not include the large increases in volumes which are forecast beyond 2005/06. It is in these latter years that the systems will finally be fully utilised, as designed and built for in 2000.
- 9.48 Ofcom has increased the recovery period to 2008/09 for those assets that are currently in use (five years from 03/04 costs) and to 2009/10 for those assets not yet in place (five years from 04/05). To enable the recovery of all costs incurred since 2000, the recovery period commences in 2001/02.

Responses to the August consultation

- 9.49 BT has argued that Ofcom's approach will only capture all the costs for products with lifetimes within the recovery period and that any new products or services will need to be factored in through an, as yet to be agreed, methodology.
- 9.50 A number of respondents consider that the cost recovery period is too short and should reflect the relevant asset life, which in most cases would mean the period should be reset to five years from January 2005 when LLU take-up will begin to accelerate. It has also been suggested that Ofcom should calculate the useful life of the relevant assets and, where it is not possible to do so, that a seven year life should be presumed. In addition, Ofcom should review the period if the useful asset life is longer than originally assumed.

Ofcom response

- 9.51 Ofcom does not consider that the costs of new products will need to be factored in to the charge ceilings set out in this statement. It is likely that new products and services will have new and separate charges from those set out here.
- 9.52 Ofcom considers that the recovery periods generally reflect the relevant life of the assets. Ofcom has increased the recovery periods from those set out in the August consultation and has set out above the reasons for its decision.

Forecast volumes

- 9.53 BT has provided volume forecasts, which predict that by 2008/09 there will be around 3.5 million LLU lines. Information received from other communication providers is reasonably consistent with this forecast. Ofcom considers that it is appropriate to rely on forecasts based on the business plans of industry.
- 9.54 BT has split its 3.5 million forecast between fully unbundled and shared access on the basis of 2.0 million fully unbundled lines and 1.5 million shared access lines.
- 9.55 Ofcom has applied a churn rate, which relates to churn between different providers, to fully unbundled and shared access connection volumes in order to calculate the number of gross connections. This is consistent with the approach used to set WLR charges. Ofcom considers that a relatively conservative assumption is appropriate for LLU, given that LLU connection

charges are higher than those for WLR. It has therefore used a 10% churn rate in setting LLU charges.

Responses to the August consultation

- 9.56 BT has requested a mechanism to allow for the resetting of charges should the volume forecasts used be underachieved. Further, BT has pointed out that it expects to launch a number of new products and this may have knock on effects to the forecasts due to substitution or product interactions.
- 9.57 ntl has commented that in order to ensure that forecast volumes are met, Ofcom must remain actively involved to ensure efficient pricing and to ensure that BT's processes and systems are capable of delivering these volumes.

Ofcom response

- 9.58 Ofcom does not believe that there should be a formal mechanism linking charges to achieved volumes. One reason for this is that it is important to ensure that BT has good incentives to encourage LLU volume growth. However, Ofcom will consider the level of charges in the next charge review.
- 9.59 Ofcom will continue to be actively involved in the development of LLU and has already set out its intentions in respect of setting further charge ceilings and assisting the Adjudicator with his work on processes and systems.

Bad debt

- 9.60 Ofcom has used a 0.4% bad debt figure, which is consistent with that used to determine WLR charges. In the document entitled *Protecting consumers by promoting competition: Oftel's conclusions*, 20 June 2002, Oftel considered that BT should recover a bad debt cost but one which recognises that BT can devise incentives for operators to pay promptly, including possible penalties for non-payment, or by charging other operators up-front. For the same reasons, Ofcom considers that 0.4% is the appropriate bad debt figure for LLU charges.

Responses to the August consultation

- 9.61 BT considers that the level of bad debt proposed in the August consultation is inconsistent with the historic level of bad debt for LLU and the expected future risk factors, given the significant LLU volume increases and the likelihood that some operators will be unsuccessful. Further, BT considers that the proposed charge ceilings would constrain its ability to levy penalties and up-front charges such as used in WLR.
- 9.62 A number of respondents consider that 0.4% is too high due to BT's credit vetting and security arrangements and that BT secures payment in advance. ntl suggests that Ofcom should monitor actual bad debt and revise accordingly.

Ofcom response

- 9.63 Ofcom considers that a penalty charge would be a separate charge to those which the charge ceilings in this section relate to and therefore BT would not be constrained by the charge ceilings set. In relation to up-front charges,

Ofcom does not believe that the charge ceilings would constrain BT's ability to require charges to be paid up-front.

- 9.64 Ofcom recognises that significant volume increases are expected and that some operators are likely to be less successful than others. However, Ofcom does not consider that BT is likely to face a higher risk of bad debt, given BT's ability to secure payment in advance and that the total number of LLU operators is likely to be fairly small and consist of larger operators with adequate financial backing.

Major cost categories for connection and rental

- 9.65 The following are the major cost categories that are included in fully unbundled and shared access connection charges:

- wholesale costs - administrative costs of providing fully unbundled and shared access, including costs for customer service, product team support and use of computers;
- MDF jumpering - connecting and disconnecting jumpers to the MDF for both fully unbundled and shared access;
- test access matrix ("TAM") - provides a remotely-controllable facility for the temporary connection of a line to a line test system to facilitate fault investigations tests;
- upgrade budget for wholesale systems - Ofcom has included an amount for future system and process improvement costs, which may, for instance, result from the work of the Adjudicator. This is to avoid Ofcom having to re-determine the charge ceilings in the near future should BT incur costs that should legitimately be recovered in its charges; and
- site visit - visit by a BT engineer to the customer premises to complete the installation of a copper loop.

- 9.66 The following are the major cost categories that are included in the shared access rental charge:

- wholesale costs - as above;
- pair gain - removal of pair gain equipment and provision of a copper line; and
- fault investigations - diagnosis of faults.

- 9.67 BT has provided cost and volume data, where applicable, for each major cost category. Since the August consultation, BT has provided actual cost and volume data up to 2003/04 and forecast data for 2004/05 onwards. In some cases its cost data has been revised to take account of developments such as process and system improvements flowing from the work of the Adjudicator.

Assumptions applied to the major cost categories for connection and rental

Wholesale costs - fully unbundled and shared access

- 9.68 BT has submitted lower wholesale cost data, from that provided for the August consultation, that takes into account the expected process and system improvements flowing from the work of the Adjudicator. From BT's cost data,

Ofcom has removed marketing and sales costs that are not appropriate to be recovered in LLU charges and also removed bad debt, as this is calculated across the whole charge instead. This is both consistent with other charges, for example WLR, and the way charges were calculated in 2000 and 2001. Ofcom has also removed those wholesale costs that have been recovered from LLU charges prior to 04/05.

- 9.69 BT has submitted zero costs for developing and implementing historical OSS.
- 9.70 As discussed in the paragraphs above, one approach to estimating the impact of economies of scale and scope on indirect wholesale costs is to identify a CVE. Since the August consultation, BT has identified those costs which are direct and those which are indirect. Ofcom has included those indirect costs incurred up to 2003/04 and from this point has limited the percentage increase in forecast indirect costs between 2004/5 and 2008/9 to a maximum of 0.5 (i.e. the CVE) times the projected percentage increase in volumes.
- 9.71 Ofcom has been unable to pool and spread wholesale system set-up costs as a result of the difficulties in obtaining equivalent BT DSL wholesale cost data. Ofcom accepts that there are inherent difficulties for BT to produce this data, as BT's systems do not separately identify those costs that relate to the access network, as opposed to the ATM or IP layer, for example. Ofcom recognises that these difficulties cannot be overcome in a short timeframe and therefore intends to address these issues going forward.
- 9.72 Ofcom has combined the wholesale costs for fully unbundled and shared access and re-allocated them on the basis of an equal cost per fully unbundled or shared access line. In the August consultation these costs were weighted 60:40 towards fully unbundled loops, however, Ofcom does not consider that the wholesale cost allocation should be different between fully unbundled and shared access. Ofcom has therefore added the costs for fully unbundled and shared access connections together and then divided these by the total volume of fully unbundled and shared access connections. Rental costs have been calculated in the same way.
- 9.73 As discussed above, Ofcom has used a recovery period up to 2008/09 and a cost of capital of 13%.

Responses to the August consultation

- 9.74 BT considers that the pooling and spreading of costs should be performed consistently. By not pooling and spreading wholesale system set-up and OSS costs, BT considers that this undermines the proposed economic benefits of pooling and spreading.
- 9.75 A number of respondents expect that the application of an appropriate CVE would result in reductions to wholesale costs as there are both scale and scope economies that apply to these costs.
- 9.76 Bulldog has questioned Ofcom's proposal to allocate costs between full and shared on a 60:40 basis, as it considers that these costs should be allocated based on the forecast volumes of each.

Ofcom response

- 9.77 As set out in Section 8, Ofcom considers that all system set-up costs should be pooled and spread. However, Ofcom has been unable to obtain accurate data regarding equivalent BT's DSL wholesale costs and accepts that there are inherent difficulties for BT to produce this data. However, Ofcom will seek to address this issue going forward.
- 9.78 As explained above, Ofcom has now applied a CVE to wholesale costs.
- 9.79 Ofcom has set out above the method used to calculate wholesale costs based on an equal cost per fully unbundled or shared access line and how the fully unbundled and shared access forecast volumes have been used.

MDF Jumpering - fully unbundled and shared access

- 9.80 The costs of MDF jumpering have been calculated from the time it takes to perform the jumpering, including travel time, for both fully unbundled and shared access and the fully allocated hourly labour rate associated with this.
- 9.81 Ofcom has used the same labour rate for internal and external tie cables, pair gain and site visit costs.

TAM - fully unbundled and shared access

- 9.82 For shared access, Ofcom understands that the TAM is not necessary in order for BT to be able to connect to the PSTN test head for line maintenance purposes.
- 9.83 However, for fully unbundled access, the TAM is necessary to connect these lines to the PSTN test head for line maintenance purposes. The principles of pooling and spreading are designed to achieve equivalence between all providers of DSL services and therefore Ofcom has spread the fully unbundled TAM connection costs across all DSL lines. The TAM enables a fully unbundled line to be tested remotely, whereas currently shared access and DSL lines can already be tested remotely without the use of a TAM. Therefore, there are no equivalent costs from either shared access or BT DSL services with which to pool. Ofcom considers that fully unbundled lines compete directly with shared access and DSL lines and therefore equivalence is achieved by spreading fully unbundled TAM costs.
- 9.84 By spreading the costs of the fully unbundled TAM across shared access lines, part of these costs have been added to the shared access connection charge ceiling.
- 9.85 Ofcom recognises that in the future operators may want the use of a TAM that is connected to a test head with increased functionality and that, in addition, BT may need to connect a TAM to shared access lines for PSTN testing purposes when its 21st Century Network is rolled out. Ofcom understands that the LLU operators have not yet agreed a solution with BT on increased diagnostic capabilities and that BT has yet to finalise its plans for testing capabilities in relation to its 21st Century Network. In the future, Ofcom may need to revise its charges or there may need to be a separate charge for connecting shared access lines to a TAM.

- 9.86 Fully unbundled TAM costs have been calculated using the number of TAMs per site, derived from the forecast volumes and a total of 1140 sites, and BT's costs for a TAM base and expansion unit. Ofcom has used a recovery period up to 2008/09 and applied a cost of capital of 13%.

Responses to the August consultation

- 9.87 Bulldog considers that TAM costs should be spread across all lines as all users will accrue the benefits of the TAM.

Ofcom response

- 9.88 Ofcom set out its reasons for not spreading costs across all lines in Section 8.

Upgrade Budget for wholesale systems - fully unbundled and shared access

- 9.89 The upgrade budget for wholesale systems has been spread across all DSL lines and Ofcom has used a recovery period up to 2009/10.

Responses to the August consultation

- 9.90 BT considers that Ofcom should pool and spread costs consistently and that by not pooling and spreading the equivalent costs for BT's own DSL systems, this undermines the proposed economic benefits of pooling and spreading.
- 9.91 One respondent has asked for some clarity as to how the upgrade budget has been estimated and confirmation that if BT overspend they will bear the additional costs.

Ofcom response

- 9.92 Ofcom considers that the upgrade budget is necessary to ensure that LLU systems are both fit for purpose and scale. Ofcom considers that DSL systems are already fit for purpose and scale and therefore there are no equivalent costs that BT will incur in the provision of BT's DSL services.
- 9.93 The Adjudicator provided Ofcom with an estimated budget figure that appears reasonable. Ofcom does not consider that BT should bear additional costs and therefore any over or under spend will be taken into account when the charges are next set. Ofcom will also consider whether the expenditure was necessary and costs have been efficiently incurred.

Site visit - fully unbundled (new provide, MPF minor network intervention, MPF major network intervention, and MPF small network build)

- 9.94 The cost of a site visit has been calculated from the time it takes to provision a new copper loop multiplied by the labour rate, plus the cost of materials, which in this case is a very small percentage of the cost. The time involved includes the average time that it takes to provision a new loop (the provision of NTE and the drop wire), travel time and testing.

Response to the August consultation

- 9.95 Bulldog considers that the cost of a site visit must reflect the fact that over 90% of standard new provides are provisioned over spare pairs.

Ofcom response

- 9.96 The cost of the site visit reflects the number of new provides that are provisioned over spare pairs.

Pair Gain - shared access

- 9.97 The costs of removing pair gain equipment and the provision of a copper line are made up from a variety of items including planning costs, equipment, labour time and the corresponding rate which includes overheads.
- 9.98 The overall cost is spread over a 15 year recovery period, which is the same as for the copper loop, and multiplied by the incidence rate to give an annual cost figure included in the charge ceilings.

Responses to the August consultation

- 9.99 Energis have requested that the cost recovery period for copper is considered in the valuing copper access project. C&W would like any changes to the cost recovery period, as a result of the same project, to flow through into the pair gain analysis.
- 9.100 Bulldog expects the incidence of pair gain to diminish over time.

Ofcom response

- 9.101 The valuing copper access project is considering the recovery period for copper. If a change is made to the recovery period, it will be reflected in the next review of charges or earlier if material to the overall charge.
- 9.102 The incidence of pair gain may diminish over time and this will be assessed at the next review of charges.

Fault investigations - shared access

- 9.103 Ofcom has examined the incidence of rising PSTN faults that occur when broadband is added to a line and is of the view that any increases in PSTN faults are likely to be as a result of provisioning issues at either the customer end or at the exchange, arising in the first 25 days of service. BT has agreed to address these provisioning issues and the Adjudicator with industry is also examining them to ensure that improvements are made. Therefore, Ofcom expects substantial quality improvements and PSTN faults on shared access lines to reduce to the same level as a line without broadband in the near future.
- 9.104 Ofcom has therefore only used the incremental broadband fault rate as the basis on which to calculate fault investigation costs. Similar to increases in PSTN faults, Ofcom understands that many broadband faults are early life failures arising in the first 25 days of service, which tend to result from BT provisioning issues. Again, given BT's commitments and the involvement of the Adjudicator, Ofcom expects a reduction in the incidence of broadband faults in the near future. Ofcom has therefore reduced BT's broadband fault rate by a third to provide the correct incentives for improvements to process and quality.

9.105 The number of faults per line on shared access lines divided by the total number of PSTN faults per line gives the incremental fault rate for shared access, which has been applied to the total cost of maintenance to correct faults and divided by the total number of lines to give a unit cost.

Connection and rental charge ceilings

9.106 Table 9.1 sets out the charge ceilings for shared access rental and connection and fully unbundled connection. These charge ceilings will apply from 1 January 2005.

Table 9.1 Charge ceilings for rental and connection

Local Loop Unbundling Service	Type of Charge	(£)
Shared MPF	rental per annum	15.60
Shared MPF	connection	34.86
MPF Transfer	connection	34.86
MPF New Provide	connection	168.38

9.107 For shared access rental, wholesale costs account for 64% of total costs. For shared access and fully unbundled (transfer) connection, MDF jumpering and wholesale costs account for 88% of total costs. For fully unbundled connection (new provide), the site visit accounts for 81% of the total costs.

Rebate for fully unbundled connection charges

9.108 Ofcom considers that a rebate formula, which allows for connection charge rebates in the event that the line is handed back before the end of its asset life, is appropriate. The formula calculates the value of the line when it is handed back and therefore depends on the 15 year asset life of the line and the line's re-usability. At present, Ofcom considers that this rebate system is still appropriate although alternatives to it will be considered in the future.

9.109 The current formula used by BT is set out below:

$$R = (Z \times C) - \left(\frac{Z \times C \times Y}{W} \right)$$

Where:

- R is the amount to be repaid;
- C is the relevant part of connection charge (i.e. the capital value of the asset);
- Y is the number of years between provision of the asset to the Operator and its return to BT rounded up to the next whole year;
- Z is a constant being the proportion of cost reflecting the likely 're-usability' of the asset by BT; and
- W is a constant reflecting the economic life of the asset.

Responses to the May consultation

9.110 Wanadoo requested further clarity on the relationship between fully unbundled charging and WLR charging.

Ofcom response

9.111 Ofcom has, where it is appropriate, applied the same approach to setting LLU charges as used in 2000 and 2001. Oftel set starting charges for the WLR connection and transfer products in 2002. Oftel derived these charges from the previously determined fully unbundled charges. This ensured that, where the two products share major components, most obviously the subscriber line, charges were consistent. However, there were also a large number of differences, with some costs being relevant to LLU but not to WLR and vice versa. The WLR charge therefore differs from the LLU rental charge because of the removal of LLU specific costs, such as jumpering, and the inclusion of items such as the PSTN linecard which are only relevant to WLR. The adjustments are described in detail in Annex E of *Protecting consumers by promoting competition: Oftel's conclusions*, 20 June 2002.

9.112 In addition, both LLU and WLR charges will be dependent on the results of Ofcom's valuing copper access project. Following the conclusions of this project, the charges for fully unbundled access and WLR will need to be revisited and, in this respect, will be set on a consistent basis.

Responses to the August consultation

9.113 BT is concerned that the charge ceilings may mean that BT's charges are above its cost ceiling or below its cost floor, as reported in its regulatory accounts.

9.114 C&W has asked Ofcom to revisit the fully unbundled connection charges at the same time as the rental charge is set in 2005.

9.115 Viatel considers that the proposed charges are still too high and that Ofcom should reduce charges to a level that will allow smaller players to enter the market. Further, Bulldog considers that fully unbundled connection charges should be much lower in order to align with European best practice and in order to be non-discriminatory compared to PSTN and WLR charges. Bulldog also considers that the reasons for the premium on fully unbundled connection relative to shared is unclear, especially given that additional jumpering is required for shared access.

9.116 Bulldog considers that the fully unbundled new provide connection charge should reflect the possibility of re-use as BT's rebate scheme is too complex.

9.117 A number of respondents have asked Ofcom to consider retrospection in respect of the proposed charge ceilings and also in relation to the fully unbundled rental charge that will be determined in 2005.

Ofcom response

9.118 It is possible that, if actual LLU volumes are very different to those forecast for the purposes of setting charges, actual average costs could fall outside floors and ceilings. This possibility is in fact inherent whenever charges are

determined or a charge control is set to apply for a significant length of time. If, for example, a charge fell below the floor, it would then be necessary to consider whether there was any likelihood that a price below the floor would distort competition in the market for wholesale local access. The floors and ceilings test is not the only test for anti-competitive charging and the judgement would therefore also depend on other relevant considerations.

- 9.119 Ofcom considers that the charge ceilings for fully unbundled connection should be as set out above. However, Ofcom will consider whether it is necessary to revisit these charge ceilings when it sets the fully unbundled rental charge.
- 9.120 Ofcom does not consider that it is appropriate to set charges artificially low in order to allow smaller players to enter the market. Charges are currently set on the basis of encouraging efficient entry into the market, as this provides the most appropriate signals to both suppliers and consumers when making their purchasing decisions. In addition, Ofcom considers that it would be unreasonable not to allow BT to recover those costs efficiently incurred, as set out in above.
- 9.121 Ofcom does not consider it appropriate to set charges solely based on international benchmarking. The methods and assumptions used by overseas operators and regulators to set charges may be unclear, whilst costs are anyway likely to differ from those of an efficient UK operator because of differences in geographies, for example. To set charges on the basis of benchmarking could therefore result in charges which may not be cost oriented, could encourage inefficient entry, have a negative effect on BT's investment in LLU services and result in inconsistencies between charges for different products that use the same copper input, such as LLU and WLR. However, Ofcom has used international benchmarking to inform its analysis.
- 9.122 Ofcom recognises that the basis on which the site visit has been calculated for LLU and WLR is different and that this may have resulted in the use of different costs. Ofcom intends to ensure that any inconsistencies are resolved going forward.
- 9.123 There is no longer a difference between the connection charge for fully unbundled and the connection charge for shared access.
- 9.124 As stated above, Ofcom considers currently that the rebate system is still appropriate and that reflecting the possibility of re-use in the charges themselves would be too complex and uncertain. Ofcom will consider alternatives to the rebate system in the future.
- 9.125 Ofcom does not consider that retrospective charges for LLU services would be appropriate. Retrospection is only appropriate in exceptional circumstances and Ofcom must consider the legitimate expectations of the parties involved. The charge reductions have mainly occurred as a result of changes to Ofcom's approach to cost recovery and increased forecast volumes. Ofcom does not therefore consider that there is a case for the new charges to be retrospectively applied back to 2001 or for fully unbundled rental charges to be retrospectively applied to December 2004.

Major cost categories for other charges

Shared MPF hand back

9.126 Shared MPF hand back is the disconnection of a shared access line when it is returned to BT within 5 days of being transferred from a standard PSTN line. It has been calculated from the time it takes to perform the jumpering provision and recovery and multiplying this by the jumpering labour rate.

Right when tested

9.127 The Right When Tested (“RWT”) charge applies to shared access only and occurs when BT checks the status of the line following an operator reporting a fault. It has been calculated using the TAM rental costs as a proxy which include server maintenance and management system maintenance costs, as the RWT process makes use of this equipment. The incidence rate of RWT events is calculated from the number of fault reports during an observation period as a percentage of the number of loops at the end of the period and the percentage of reports which were RWT.

MPF connection (minor network intervention)

9.128 Minor network intervention is calculated from the labour rate (plus a mark-up for overheads) multiplied by the time it takes to perform the relevant activities. These activities include those relating to the site visit, cease stopped line, faulty D-side pair and channel found. The cost of materials is also included.

MPF connection (major network intervention)

9.129 The activities involved in major network intervention include those relating to the site visit, 2 hours planning and pair divert. The cost of materials is around 19% of the total cost.

MPF connection (small network build)

9.130 The activities involved in small network build include those relating to the site visit, build and planning.

MPF hand back charges

9.131 MPF hand back is the disconnection of a fully unbundled line when it is returned to BT within 5 days of being transferred from a standard PSTN line. It has been calculated from the time it takes to perform the jumpering provision and recovery and multiplying this by the jumpering labour rate.

Tie cables

9.132 In the August consultation document, Ofcom proposed a new method of payment for tie cables, where the connection charge recovers the manpower costs involved in connecting the tie cables and the rental charge recovers the cost of the materials used i.e. the tie cable.

9.133 The connection charge has therefore been calculated by multiplying the labour rate by the time it takes to perform the activities involved. The rental charge has been calculated from the costs of the materials spread over the

economic life of the asset, which is 15 years, and applying a cost of capital of 13%.

- 9.134 BT will need to refund part of the connection charge for existing tie cables. Ofcom considers that, in the first instance, the calculation for this refund should be discussed between BT and those relevant operators but Ofcom will intervene if necessary. Ofcom expects BT to ensure that it issues refunds in a timely manner.

Responses to the May consultation

- 9.135 Wanadoo requested capital costs to be charged up-front. Wanadoo argued that, if the cost of tie cables were paid up-front, LLU operators would be entitled to depreciate their investment as capital expenditure in the same way as BT. At present this would not be possible because they had no ownership rights to the tie cable.
- 9.136 Wanadoo also queried whether a licence fee for the use of the MDF was appropriate, firstly, in keeping with the cost recovery principles and, secondly, whether it was non-discriminatory.

Ofcom response

- 9.137 As stated above, the costs of the tie cables are made up from materials and manpower costs. In order that tie cables do not form a barrier to entry due to their high up-front cost, Ofcom has split the costs between rental and connection charges, where the rental charge includes materials costs and the connection charge includes manpower costs.
- 9.138 Ofcom considers that the issue of ownership rights to the tie cable should be separately raised with the Adjudicator.
- 9.139 The licence fee is for the rent of the space in the building for the part of the MDF that the LLU operator uses, i.e. it covers accommodation costs. As LLU operators use and benefit from the MDF, there is a basis for the fee and, given that BT pays the rent for the space in the building, Ofcom has no reason to consider that it is discriminatory.

Responses to the August consultation

- 9.140 BT suggests that Ofcom has allocated up-front costs to tie cable rental charges and that therefore there should be an early termination charge to ensure that BT can recover its up-front costs where LLU operators terminate their contracts before such costs have been recovered. Bulldog considers that charging should reflect the re-use rates and that BT's rebates introduce unnecessary complexity.
- 9.141 Most respondents have asked Ofcom to clarify what happens to those existing tie cables for which a much higher connection charge had already been paid.
- 9.142 Energis considers that under this new regime there would be little incentive on BT to maintain the cable after the period of recovery has elapsed. ntl consider that the recovery period for tie cables should be longer than one

year. Trilogy considers that the increase in external tie cable rental is unjustified and would have a significant impact on its business and make some exchanges unviable.

Ofcom response

9.143 Ofcom has not allocated any up-front costs to tie-cable rental charges and therefore an early termination charge would not be appropriate. Further, the change to the allocation of costs between connection and rental charges means that rebates are no longer necessary.

9.144 As stated above, BT should refund part of the connection charge for existing tie cables.

9.145 Ofcom has used a 15 year recovery period that is based on the asset life of a tie cable. Therefore, the rental per annum for external tie circuits is much lower than set out in the August consultation, where a period of only one year was used.

Power

9.146 These charges are based on the replacement cost of a generator amortised over an asset life period of 20 years.

Other charge ceilings

9.147 Table 9.3 sets out the charge ceilings for other LLU charges. These charge ceilings will apply from 1 January 2005.

Table 9.3 Charge ceilings for other LLU charges

Local Loop Unbundling Service	Type of Charge	(£)
Shared Access		
Shared MPF Hand Back (No TAM)	disconnection	19.19
Shared MPF Hand Back (With TAM)	disconnection	13.83
Shared MPF standard line test - Right When Tested	test	3.75
Metallic Path Facilities		
MPF Minor Network Intervention	connection	315.76
MPF Major Network Intervention	connection	643.36
MPF Small Network Build	connection	2,776.27
MPF Hand-back charge - Transfer	disconnection	4.24
MPF Hand-back charge – New Provide	disconnection	4.24
Internal Tie Cables		
Internal Tie Cables (1)	rental per annum	19.48
Internal Tie Cables (1)	connection	476.89
Internal Tie Cables (2)	rental per annum	14.08
Internal Tie Cables (2)	connection	376.83
Internal Tie Cables (2) – Jointing	fixed charge per cable	143.92
MDF Licence Fee	per cable charge per annum	23.64

External Tie Cables		
BT provided cables (100 pairs)	rental per annum	104.93
BT provided cables (100 pairs)	connection	1,340.11
BT provided cables (100 pairs) (additional 100m)	rental per annum	71.24
BT provided cables (100 pairs) (additional 100m)	connection	209.35
BT provided cables (500 pairs)	rental per annum	168.43
BT provided cables (500 pairs)	connection	2,191.83
BT provided cables (500 pairs) (additional 100m)	rental per annum	131.98
BT provided cables (500 pairs) (additional 100m)	connection	209.35
BT provided cables (additional 100 pairs)	rental per annum	89.60
BT provided cables (additional 100 pairs)	connection	422.28
Operator provided cables (100 pairs)	rental per annum	24.68
Operator provided cables (100 pairs)	connection	1,188.02
Operator provided cables (500 pairs)	rental per annum	27.44
Operator provided cables (500 pairs)	connection	1,689.03
Operator provided (additional 100 pairs)	rental per annum	13.18
Operator provided (additional 100 pairs)	connection	406.18
Power		
Essential system supply	rental per annum	145.28
Non-essential system supply	rental per annum	11.69
AC final distribution	rental per annum	311.02

Communications Act tests

- 9.148 Ofcom considers that the direction (at Schedule 1, Annex 2) meets the tests set out in the Act.
- 9.149 Ofcom has considered its duties under section 3 and all the Community requirements set out in section 4 of the Act. In particular, the direction is aimed at promoting competition and securing efficient and sustainable competition for the maximum benefit of retail consumers by ensuring that charges for LLU services are at a level that enables providers to compete in downstream narrowband and broadband markets.
- 9.150 Section 49 of the Act requires directions to be objectively justifiable, non-discriminatory, proportionate and transparent. Ofcom considers that the direction is an objectively justifiable and proportionate response to BT's market power, as it ensures that BT is unable to exploit its market power and enables competing providers to purchase services at levels that enable them to compete in downstream markets to the benefit of consumers, whilst at the same time allowing BT a fair rate of return that it would expect in competitive markets. Although the direction is only made against BT, it does not unduly discriminate, as Kingston does not currently provide LLU services. Finally, it is transparent in that it is clear in its intention to ensure that BT provides LLU services at cost oriented charges.

Charge control

- 9.151 Charges that are re-determined regularly have a number of positive properties, but provide the dominant provider with limited incentives towards cost minimisation and provide little predictability for competing providers. To

ensure that charges better mimic those that could be expected in a competitive market, it may be appropriate to introduce a charge control. In general, a charge control constrains the movement of regulated charges so that they reflect any cost savings derived from expected volume increases, expected reductions in asset and input prices and expected efficiency improvements (assessed through a benchmarking exercise). At the same time, a charge control allows the retention of all gains from unanticipated efficiency improvements for the period of the control, thus providing the dominant provider with incentives towards cost-efficiency.

- 9.152 When LLU charges were first set, a charge control was not introduced because of the inevitable uncertainty surrounding the charging of services not yet in place. However, Oftel stated its intention to review the charges and introduce an RPI-X charge cap to provide BT with incentives for cost-efficiency. However, Ofcom is of the view that current take-up of LLU services is still too limited to allow an accurate enough assessment of LLU costs to set a sufficiently robust charge cap. Therefore, Ofcom proposes to review the issue of a charge control in the next review of the wholesale local access market and charge ceilings will remain in place until such time.

Responses to the May consultation

- 9.153 A number of respondents requested that Ofcom should consider setting a charge control sooner than the end of the market review period and put in place a trigger for doing so. UKCTA also asked when the date of the next review would be. Energis proposed that a short-term price control for one year should be implemented.

Ofcom response

- 9.154 Ofcom does not consider it necessary to put in place a trigger for a review of whether a charge control is appropriate. Ofcom will continue to closely monitor the market and only when there is sufficient stability in both volume and cost data will it consider setting a charge control. Therefore, Ofcom does not consider that a short-term charge control is appropriate.

Section 10

Regulatory financial reporting

Introduction

- 10.1 This section covers the imposition on BT of obligations for cost accounting systems and accounting separation in relation to the wholesale local access market and in respect of co-location. Ofcom has considered the responses to the previous consultations carefully and has taken them into account in making its final decision. Ofcom's decisions on the regulatory financial reporting obligations to apply to BT are unchanged from those set out in the previous consultations. Similarly Ofcom's decision to not impose regulatory financial obligations on Kingston also remains unchanged.
- 10.2 The imposition of regulatory financial reporting obligations on dominant providers is an important means of ensuring that obligations in relation to cost orientation and non-discrimination (as have been imposed on BT and Kingston in Section 6) can be effectively monitored.
- 10.3 The appropriateness of imposing regulatory financial reporting obligations and the level of information required is a question to be decided on the basis of the findings of the market review. The practical processes of cost accounting and accounting separation, such as cost attribution methodologies, accounting standards, audit, transparency, disaggregation, reconciliation and publication of information, are distinct from the broader question of principle on the appropriate level of regulation in a market and the remedies to be applied. Ofcom considers that the practical processes for regulatory financial reporting should be consistent across all markets susceptible to regulation to ensure that there is certainty and transparency for the regulator, the dominant providers and their competitors.
- 10.4 On 22 May 2003, Oftel published a consultation document on regulatory financial reporting entitled Financial reporting obligations in SMP markets: A Consultation on accounting separation and cost accounting systems (the "May 2003 consultation"). The scope of this consultation was to address how cost accounting and accounting separation should be implemented in the various markets where market reviews had proposed that regulatory financial reporting obligations would be appropriate. It also addressed the level of granularity required for such obligations to be imposed in a proportionate and appropriate manner. The document proposed conditions for wholesale cost accounting, retail cost accounting and accounting separation in a range of markets that were, at that time, the subject of market reviews being carried out by Oftel.
- 10.5 Following the May 2003 consultation, and the conclusion of many of the relevant market reviews, Ofcom published a further notification and explanatory statement entitled The regulatory financial reporting obligations on BT and Kingston in markets where SMP has been demonstrated, 8 April 2004 (the "April 2004 consultation"). This document addressed responses made to the May 2003 consultation and set out Ofcom's amended SMP conditions and directions for regulatory financial reporting for the 39 markets (26 for BT and 13 for Kingston) where Ofcom had proposed or decided that

regulatory financial reporting obligations should apply. In particular, Ofcom proposed:

- SMP services conditions for regulatory financial reporting on BT (Conditions OA1 to OA34) and Kingston (Conditions OB1 to OB33) covering all forms of regulatory reporting; and
- draft directions under those conditions setting out:
 - the network components to be reported on;
 - the transparency of the systems;
 - the financial statements to be prepared and published and the appropriate audit levels;
 - the form and content of these financial statements;
 - the fairly presents in accordance with (FPIA) audit opinion; and
 - the properly prepared in accordance with (PPIA) audit opinion.

10.6 On 22 July 2004, following an assessment of the responses to the April 2004 consultation, Ofcom implemented these conditions and directions in 37 markets in a final statement entitled The regulatory financial reporting obligations on BT and Kingston Communications (the “July 2004 final statement”).

10.7 Ofcom considers that it is appropriate that the same obligations be imposed on BT for the market and technical area covered in this review. Some of the conditions implemented on 22 July 2004 are only relevant to retail markets, and therefore do not apply. However, Ofcom considers that the remainder of the conditions and all the directions set out in the July 2004 final statement should apply to BT in the wholesale local access market and in respect of co-location. Therefore, in the August consultation, Ofcom consulted on an amended set of conditions and directions that addressed these issues.

10.8 As stated in the August consultation, Ofcom considers that it is not appropriate for Kingston to be obliged to have systems in place to demonstrate that it is meeting its obligations of cost orientation and to not unduly discriminate. As Kingston does not currently provide LLU, Ofcom considers that it would be disproportionate for Kingston to be obliged to have systems to monitor these obligations. However, if this situation were to change (i.e. if Kingston were to start to provide LLU services in the Hull Area), Ofcom would consider imposing similar regulatory financial reporting conditions on Kingston for this market and technical area.

10.9 The paragraphs below outline why the regulatory financial reporting obligations are appropriate in the wholesale local access market and in respect of co-location for BT.

The necessity of regulatory financial reporting

10.10 In paragraphs 6.47 to 6.81, Ofcom is requiring BT’s charges to be cost-oriented on the basis of LRIC with an appropriate mark-up for the recovery of common costs and a reasonable return on capital employed (LRIC+). As explained in that section, this is to ensure that the charges of dominant providers are constrained to enable competitors purchasing such services to compete with the dominant providers in downstream markets.

- 10.11 It is essential, if the obligation for cost orientation is to be meaningful, that there is a clear and comprehensive understanding of the costs of BT and how these are attributed to different parts of their activities. In order to accomplish this, a regulatory financial reporting system must capture all relevant financial, operational and other information necessary to prepare and present financial information. Cost accounting reporting therefore enables Ofcom to determine whether charges are cost-oriented.
- 10.12 Sections 87(9) to 87(11) of the Act allow Ofcom to impose appropriate cost accounting obligations on dominant providers in respect of the provision of Network Access, the use of the relevant network and the availability of relevant facilities. Cost accounting rules may be made in relation to charge controls, the recovery of costs and cost orientation. Ofcom therefore considers that it has the necessary legal basis to impose cost accounting obligations on BT in the wholesale local access market in the UK excluding the Hull Area and in respect of co-location.
- 10.13 In paragraphs 6.35 to 6.46, Ofcom is requiring BT to not unduly discriminate. This is because where a dominant provider is vertically integrated it has an incentive to provide wholesale services on terms and conditions that discriminate in favour of its own downstream activities.
- 10.14 It is essential, if the obligation to not unduly discriminate is to be meaningful and effective, that BT can be required to make transparent its wholesale prices and internal transfer prices, i.e. to demonstrate that it is not unduly discriminating against other communications providers. In practice this means that it is obliged to produce financial statements that reflect the performance of markets as though they were separate businesses. Accounting separation therefore enables Ofcom to monitor whether BT is unduly discriminating.
- 10.15 Sections 87(7) and 87(8) of the Act allow Ofcom to impose appropriate accounting separation obligations on dominant providers in respect of the provision of Network Access, the use of the relevant network and the availability of relevant facilities. That is to say, the dominant provider may be required to maintain a separation for accounting purposes between such different matters relating to Network Access or the availability of relevant facilities. Ofcom therefore considers that it has the necessary legal basis to impose accounting separation obligations on BT in the wholesale local access market and in respect of co-location.

Communications Act tests

- 10.16 Ofcom considers that the imposition of cost accounting and accounting separation obligations on BT in the wholesale local access market and in respect of co-location (Condition FA10 at Annex 1 and the draft directions at Schedules 2 to 7 of Annex 2) is appropriate and consistent with Ofcom's obligations under the Act.
- 10.17 Ofcom has considered all of the criteria in sections 3 and 4 of the Act. In particular, the imposition of a regulatory financial reporting obligation is justifiable and proportionate to promote competition (and thereby further the interests of consumers); and to ensure efficient and sustainable competition for the maximum benefit for the persons who are customers of communications providers. This is because the imposition of regulatory financial reporting obligations will ensure that obligations designed to curb

potentially damaging market power can be effectively monitored and enforced.

- 10.18 In addition, Ofcom has considered the tests laid out in section 88 of the Act. It appears to Ofcom that there is a relevant risk of adverse effects arising from price distortion. In particular, BT might fix and maintain some or all of its prices at an excessively high level or impose a price squeeze, so as to have adverse consequences for end-users. In the light of this analysis, and taking into account BT's level of investment, Ofcom is of the view that cost accounting is appropriate for the purposes of promoting efficiency, promoting sustainable competition, and conferring the greatest possible benefits on end-users of public electronic communications services.
- 10.19 Section 47 of the Act further requires all conditions to be objectively justifiable, non-discriminatory, proportionate and transparent. Ofcom considers that given the importance of cost orientation and no undue discrimination in the wholesale local access market (as described in paragraphs 6.35 to 6.81), the imposition of a regulatory financial reporting obligation (with cost accounting and accounting separation reporting outputs) is objectively justifiable. That is, in order to ensure that the obligations of cost orientation and no undue discrimination are met and the benefits are realised, it is essential that Ofcom is able to monitor the obligations via regulatory financial reporting obligations. Furthermore, the regulatory financial reporting obligations do not discriminate between providers of the same class. That is, BT and Kingston are the only dominant providers identified by this market review; they are the only providers on whom cost orientation and no undue discrimination obligations are imposed; and BT is the only provider that has significant activity in the appropriate markets. Ofcom also considers that the obligation is proportionate because the reporting obligations only require what is necessary to ensure that the obligations for cost orientation and no undue discriminated are being met.
- 10.20 In addition, Ofcom consulted on the regulatory financial reporting conditions in the May 2003 and April 2004 consultations. Given that the conditions and directions themselves which Ofcom is applying have already been subject to two rounds of consultation, Ofcom considers that, in conjunction with the explanation set out in this section, its financial reporting obligations have been made appropriately transparent.

Responses to the May consultation

- 10.21 All respondents agree that regulatory financial reporting obligations should be imposed on BT in the wholesale local access market and in respect of co-location.

Responses to the August consultation

- 10.22 BT notes that it has been in discussion with Ofcom regarding regulatory financial reporting. Specifically, BT notes that a number of issues are still subject to further discussions, such as the list of network components and the detail of wholesale cost accounting financial statements.
- 10.23 Kingston considers that it is unclear whether Ofcom is proposing regulatory accounting requirements on Kingston or not.

Ofcom response

- 10.24 Ofcom notes that its discussions with BT regarding financial reporting are ongoing.
- 10.25 The August consultation, and paragraph 10.8 above, clearly state that Ofcom does not consider that regulatory financial reporting obligations should be imposed on Kingston for the wholesale local access market and co-location.

Section 11

Discontinuation of existing regulation

Existing regulation

11.1 The following obligations apply in relation to the provision of wholesale local access services and co-location.

Requirement to provide access network facilities - Condition 83

11.2 Condition 83 of BT's licence issued under section 7 of the Telecommunications Act 1984, requires the following:

- the provision of LLU, tie cables, co-location and ancillary services;
- the publication of a reference offer;
- the provision of information on the availability of LLU and co-location;
- cost oriented prices on the basis of long run incremental costs with an appropriate mark-up for common costs and a reasonable return on capital employed;
- no undue preference or undue discrimination; and
- the publication of regulatory financial information.

11.3 Condition 83 has continued to be in effect pursuant to paragraph 9 of Schedule 18 of the Act, pending the outcome of this review, by a continuation notice given to BT by the Director General of Telecommunications on 23 July 2003. Further details on the continuation regime can be found at: http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/continuations/index.htm.

LLU Regulation

11.4 Regulation 2887/2000/EC on unbundled access to the local loop requires dominant providers in the fixed public telephone network and services market, currently BT and Kingston, to meet reasonable requests for unbundled access to local loops and related facilities on fair and transparent and non-discriminatory terms and conditions, to publish a reference offer and to have cost oriented prices.

Determinations

11.5 Oftel issued a determination in December 2000 setting the charges for fully unbundled loops and internal tie cables (this determination was rolled over in March 2002) and a determination in October 2001 setting the charges for shared loops. Oftel subsequently issued further determinations setting charging principles for external tie cables and escorted access, and setting charges for power. Oftel did not set charges for those ancillary services that are either bespoke or whose characteristics are subject to significant variation from one location to another (e.g. co-location).

11.6 Oftel issued non-charging determinations covering the following:

- the bow wave process;

- terms and conditions of the reference offer;
- co-mingling;
- service level commitments and compensation; and
- access to BT exchanges.

Discontinuation of existing regulation

Condition 83

- 11.7 Paragraph 9(11) of Schedule 18 to the Act imposes a duty on Ofcom, as soon as reasonably practicable after the giving of a continuation notice, to:
- take the necessary steps to enable it to decide whether or not to set a condition (including a SMP condition) for the purpose of replacing the continued provision; and
 - decide whether or not to exercise its power to set such a condition for that purpose.
- 11.8 When Ofcom has taken the necessary steps to allow it to make the decision required by paragraph 9(11), paragraph 9(12) of Schedule 18 to the Act requires Ofcom to give a notice (a discontinuation notice) that the continuation notice ceases to have effect as soon as reasonably practicable after making the decision required by paragraph 9(11). As set out in this statement, Ofcom has decided to replace the provisions of continued Condition 83 with new SMP services conditions and therefore Ofcom is under a duty to discontinue the relevant continued provision.
- 11.9 The discontinuation notice given under paragraph 9 of Schedule 18 to the Act to discontinue Condition 83 can be found at Annex 5 to this statement.
- 11.10 Under paragraph 9(12)(b) of Schedule 18, where Ofcom has decided to set a condition to replace the continued provision, it must not give the discontinuation notice before the coming into force of that condition. The discontinuation notice therefore enters into effect on 16 December 2004, that is, on the same day that the new SMP services conditions apply. BT has given its consent to receiving the discontinuation notice in electronic form, pursuant to section 395 of the Act.
- 11.11 Further details on the discontinuation of licence conditions can be found at <http://www.ofcom.org.uk/static/archive/oftel/publications/licensing/2003/discontinue1103.pdf>.
- 11.12 As a result of the discontinuation of Condition 83, all determinations made under Condition 83 have also ceased to apply as of 16 December.

LLU Regulation

- 11.13 The LLU regulation and any determinations made under it have ceased to apply as of 16 December 2004 as a result of the completion of this market review, in accordance with Article 27 of the Framework Directive.

Annex 1

Notification for the identification of services markets, the making of market power determinations and the setting of SMP services conditions

Schedule 1: BT conditions

Schedule 2: Kingston conditions

NOTIFICATION UNDER SECTIONS 48(1) AND 79(4) OF THE COMMUNICATIONS ACT 2003

The identification of markets, the making of market power determinations and the setting of SMP services conditions in relation to BT and Kingston

WHEREAS

1. The Office of Communications (“Ofcom”) issued a notification pursuant to section 48(2) and section 80 of the Communications Act 2003 (the “Act”) setting out its proposals for the identification of markets, the making of market power determinations and the setting of SMP services conditions on 26 August 2004 (the “First Notification”);
2. A copy of the First Notification was sent to the Secretary of State in accordance with section 50(1)(a) of the Act, and to the European Commission and to the regulatory authorities of every other Member State in accordance with section 50(3) and 81 of the Act;
3. In the First Notification and the accompanying explanatory statement, Ofcom invited representation about any of the proposals set out therein by 8 October 2004;
4. By virtue of section 80(6) of the Act, Ofcom may give effect to any proposals to identify a market for the purposes of making a market power determination or any proposals for making a market power determination set out in the First Notification, with or without modification, where –
 - (i) it has considered every representation about the proposals made to it within the period specified in the First Notification; and
 - (ii) it has had regard to every international obligation of the United Kingdom (if any) which has been notified to it for this purpose by the Secretary of State; but

Ofcom’s power to give effect to such proposals is subject to sections 82 and 83 of the Act;

5. By virtue of section 48(5) of the Act, Ofcom may give effect to any proposals to set SMP services conditions set out in the First Notification, with or without modification, where:
 - (i) it has considered every representation about the proposals made to it within the period specified in the First Notification; and
 - (ii) it has had regard to every international obligation of the United Kingdom (if any) which has been notified to it for this purpose by the Secretary of State;
6. Ofcom received responses to the First Notification and has considered every such representation made to it in respect of the proposals set out in the First Notification and the accompanying explanatory statement, and the Secretary of State has not notified Ofcom of any international obligation of the United Kingdom for this purpose;
7. The European Commission has not made a notification for the purposes of Article 7(4) of the Framework Directive as referred to in section 82 of the Act and the proposals do not relate to a transnational market as referred to in section 83 of the Act;

THEREFORE

1. Ofcom in accordance with section 79 of the Act identifies the following markets for the purpose of making market power determinations:
 - (a) wholesale local access services within the United Kingdom, but not including the Hull Area; and
 - (b) wholesale local access services within the Hull Area.
2. Ofcom in accordance with section 79 of the Act makes market power determinations that the following persons have significant market power:
 - (a) in relation to the market set out in paragraph 1(a) above, BT; and
 - (b) in relation to the market set out in paragraph 1(b) above, Kingston.
3. Ofcom in accordance with sections 48(1) and 79 of the Act hereby sets pursuant to section 45 of the Act the SMP services conditions on the persons referred to in paragraphs 2(a) and (b) above as set out in Schedules 1 and 2, respectively, to this Notification to take effect on the date of publication of this Notification.
4. The effect of, and Ofcom's reasons for the identification of the markets set out in paragraph 1 above and the making of the market power determinations set out in paragraph 2 above are contained in Section 3 and 4 of the explanatory statement accompanying this Notification.
5. The effect of, and Ofcom's reasons for setting the SMP conditions set out in Schedules 1 and 2 to this Notification are contained in Sections 5 to 7 and Section 10 of the explanatory statement accompanying this Notification.
6. In identifying the markets referred to in paragraph 1 above, and in making the market power determinations referred to in paragraph 2 above, Ofcom has, in

accordance with section 79 of the Act, taken due account of all applicable guidelines and recommendations which have been issued or made by the European Commission in pursuance of a Community instrument, and relate to market identification and analysis or the determination of what constitutes significant market power.

7. Ofcom considers that the SMP services conditions referred to in paragraph 3 above comply with the requirements of sections 45 to 50 and section 78 to 92 of the Act, as appropriate and relevant to each such SMP condition.
8. In making all of the decisions referred to in paragraphs 1, 2 and 3 of this Notification, Ofcom has considered and acted in accordance with the six Community requirements in section 4 of the Act and its duties in section 3 of the Act.
9. Copies of this Notification and the accompanying explanatory statement have been sent to the Secretary of State for Trade and Industry in accordance with sections 50(1)(a) and 81(1) of the Act, the European Commission and to the regulatory authorities of every other member State in accordance with sections 50(2) and 81(2) of the Act.
10. Save for the purposes of paragraph 2 of this Notification and except as otherwise defined in this Notification, words or expressions used shall have the same meaning as they have been ascribed in the Act.
11. In this Notification:
 - (a) **“BT”** 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;
 - (b) **“Hull Area”** means the area defined as the 'Licensed Area' in the licence granted on 30 November 1987 by the Secretary of State under section 7 of the Telecommunications Act 1984 to Kingston upon Hull City Council and Kingston Communications (Hull) plc;
 - (c) **“Kingston”** means Kingston Communications (Hull) plc, whose registered company number is 2150618, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985, as amended by the Companies Act 1989; and
 - (d) **“United Kingdom”** has the meaning given to it in the Interpretation Act 1978 (c. 30).

Andrew Heaney
Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

SCHEDULE 1

The conditions imposed on British Telecommunications plc under sections 45, 87 and 88 of the Communications Act 2003 as a result of the analysis of the market for wholesale local access services within the United Kingdom but not including the Hull Area in which British Telecommunications plc has been found to have significant market power

Part 1: Application, definition and interpretation of the conditions in Part 2

1. The conditions in Part 2 of this Schedule shall apply to the market for wholesale local access services within the United Kingdom but not including the Hull Area and shall also apply to the provision of Co-Location.

2. In this Schedule:

“Act” means the Communications Act 2003;

“Access Charge Change Notice” has the meaning given to it in Condition FA5.2;

“Accounting Documents” means together the Primary Accounting Documents, the Secondary Accounting Documents, and the Wholesale Catalogue, all as amended from time to time in accordance with Condition FA10;

“Accounting Separation Activities” means Wholesale Services and those Wholesale Activities, Network Services and Network Activities used directly or indirectly in the course of supplying Wholesale Services;

“Accounting Separation Attribution” means the totality of all apparatus, data, procedures and activities which the Dominant Provider uses or holds for use to determine the costs, revenues, assets and liabilities to be attributed to an activity, either based upon data recorded by an Accounting Separation Measuring System or otherwise;

“Accounting Separation Market Activities” means all of the Wholesale Services supplied in the Market or Technical Area (as applicable) and all of the Wholesale Activities, Network Services and Network Activities used directly or indirectly in the course of supplying those Wholesale Services;

“Accounting Separation Measuring System” means the totality of all apparatus, systems, data, procedures and activities which the Dominant Provider uses or holds for use to determine the extent to which costs, revenues, assets and liabilities are to be attributed to activities related to Network Access;

“Accounting Separation System” means the Accounting Separation Attribution and Accounting Separation Measuring System taken together;

“Accounting Standards” means the accounting standards by reference to which the Dominant Provider is required to prepare the Statutory Financial Statements;

“Alternative Regulatory Auditor” means any Auditor not for the time being appointed as the Dominant Provider’s Regulatory Auditor;

“Attribution Methods” means the practices used by the Dominant Provider to attribute revenue (including appropriate Transfer Charges), costs (including appropriate Transfer Charges), assets and liabilities to activities or, insofar as those activities have been aggregated into Wholesale Segments in a given Market or Technical Area (as applicable), to each Wholesale Segment;

“Auditing Standards” means the standards required to be applied by the Statutory Auditor for the purpose of auditing the Statutory Financial Statements;

“Auditor” means any auditor which could be appointed as the Dominant Provider’s auditor in accordance with the requirements of the Companies Act 1985 as amended by the Companies Act 1989;

“Co-Location” means the provision of space on reasonable terms permitting a Third Party to occupy part of an MDF Site reasonably sufficient to permit the use of one or more Metallic Path Facilities, and in particular to permit the connection of the Dominant Provider’s Electronic Communications Network with the Electronic Communications Network of a Third Party at that location;

“Co-Mingling” means the provision of Co-Location having the following characteristics:

- (a) the Third Party’s Electronic Communications Network is situated in an area of the MDF Site which:
 - (i) is a single undivided space;
 - (ii) after proper performance by the Dominant Provider of its obligation to provide Local Loop Unbundling Services pursuant to Condition FA9.1, would permit the normal operation of the Third Party’s Electronic Communications Network (or would permit if the Dominant Provider removed any object or substance whether toxic or not, which might reasonably prevent or hinder the occupation of the MDF Site for such use); and
 - (iii) if so requested by the Third Party, is not unreasonably distant from the Dominant Provider’s Electronic Communications Network within the MDF site;
- (b) no permanent physical partition is erected in the space between the Third Party’s Electronic Communications Network and the Dominant Provider’s Electronic Communications Network; and
- (c) the Third Party’s Electronic Communications Network is neither owned nor run by the Dominant Provider or by any person acting on the Dominant Provider’s behalf;

“Cost Accounting Attribution” means the totality of all apparatus, data, procedures and activities which the Dominant Provider uses or holds for use to determine the costs, revenues, assets and liabilities to be attributed to an activity, either based upon data recorded by a Cost Accounting Measuring System or otherwise;

“Cost Accounting Measuring System” means the totality of all apparatus, systems, data, procedures and activities which the Dominant Provider uses or holds for use to determine the extent to which costs, revenues, assets and

liabilities are to be attributed to an activity related to Network Access or the provision of services to End-Users (as appropriate);

“Cost Accounting System” means Cost Accounting Attribution and Cost Accounting Measuring System taken together;

“Current Year Figures” means, in relation to any set of Financial Statements, the amounts relating to the Financial Year to which the accounts relate;

“Disaggregated Activities” means, in respect of a Market or Technical Area, the Wholesale Segments, Wholesale Services, Wholesale Activities, Network Services, and/or Network Activities used or carried out in the Market or Technical Area, as appropriate;

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

“External Tie Circuit” means a link that connects a Metallic Path Facility to the Electronic Communications Network of a Third Party at a location outside the MDF Site;

“External Wholesale Services” means services supplied or offered to any Communications Provider other than the Dominant Provider;

“External Wholesale Services List” means the list of External Wholesale Services prepared under Condition FA10.26 as amended from time to time under Condition FA10.28;

“Financial Year” means a financial year of the Dominant Provider in respect of which annual statutory accounts are required to be (or to have been) prepared and audited in accordance with the requirements of the Companies Act 1985 as amended by the Companies Act 1989;

“GAAP” (Generally Accepted Accounting Practice(s)) means United Kingdom or international (as appropriate) conventions, rules and procedures that define currently accepted accounting practice (including, for the avoidance of doubt, not only broad guidelines of general application but also any detailed practices and procedures);

“ICAEW Guidance” means the technical release titled “Reporting to Regulators of Regulated Entities: Audit 05/03” issued by the Audit and Assurance Faculty of the Institute of Chartered Accountants in England & Wales in October 2003;

“Internal Tie Circuit” means a link, the whole of which is contained within an MDF Site, that connects a Metallic Path Facility to the Electronic Communications Network of a Third Party;

“Internal Wholesale Services” means services equivalent to the External Wholesale Services which, in the absence of horizontal or vertical integration, could be supplied within the Dominant Provider;

“Internal Wholesale Services List” means the list of Internal Wholesale Services prepared under condition FA10.26 as amended from time to time under condition FA10.28;

“Local Loop Unbundling Services” means any and all of the following specific services provided by the Dominant Provider:

- (i) access to Metallic Path Facilities;
- (ii) Shared Access;
- (iii) Sub-Loop Unbundling;
- (iv) Internal Tie Circuits;
- (v) Co-Location;
- (vi) Co-Mingling;
- (vii) External Tie Circuits;
- (viii) Site Access; and
- (ix) ancillary services as may be reasonably necessary for the use of the services in (i) to (vii) above;

“Long Run Incremental Cost Methodology” means the long run incremental cost principles, procedures and processes which form the framework under which long run incremental costs are determined by the Dominant Provider;

“Market” means the market for wholesale local access services within the United Kingdom but not including the Hull Area;

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

“Metallic Path Facilities” means a circuit comprising a pair of twisted metal wires from an end user premises to a main distribution frame that employs electric, magnetic, electro-magnetic, electro-chemical or electro-mechanical energy to convey Signals when connected to an Electronic Communications Network;

“Network Activities” means any activities related to Network Access used directly or indirectly (or which in the absence of horizontal or vertical integration would be used directly or indirectly) in the course of supplying Wholesale Services and any activities used in the course of such activities, excluding those activities which are Wholesale Activities;

“Network Component” means, to the extent they are used in the Market and in the provision of Co-Location, the network components specified in any direction given by Ofcom from time to time for the purpose of these Conditions;

“Network Services” means those groups of Network Activities used directly (or which in the absence of horizontal or vertical integration would be used directly) in the course of supplying Wholesale Services;

“Ofcom” means the Office of Communications as established pursuant to section 1(1) of the Office of Communications Act 2002;

“Primary Accounting Documents” means documentation setting out the Accounting Policies, the Attribution Methods, the Regulatory Accounting Principles, the Transfer Charge System Methodology and the Long Run Incremental Cost Methodology;

“Prior Year Comparatives” means, in relation to any set of Financial Statements, the amounts relating to the Financial Year immediately preceding the Financial Year to which the accounts relate, re-evaluated if necessary to ensure that such figures are comparable to the Current Year Figures;

“Process” means the series of inter-related activities or actions to obtain, record or hold data or information or to carry out any operation or set of operations on the data or information, including:

- (i) organisation, storage, adaptation, or alteration of the data or information;
- (ii) retrieval, consultation, computation or use of the data or information;
- (iii) disclosure of the data or information by transmission, dissemination, or otherwise making available; or
- (iv) alignment, combination, blocking, erasing or destruction of the data or information;

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

“Regulatory Accounting Principles” means the principles applied or used by the Dominant Provider in the preparation of the Regulatory Financial Statements;

“Regulatory Auditor” means the Auditor for the time being appointed by the Dominant Provider in accordance with Condition FA10;

“Regulatory Financial Statement” means any financial statement in respect of a Financial Year prepared or required to be prepared by the Dominant Provider in accordance with Condition FA10;

“Relevant Financial Year” means the Financial Year in relation to which any given set of Regulatory Financial Statements are required;

“Secondary Accounting Documents” means documentation setting out details of the policies, methodologies, systems, processes and procedures for deriving or calculating the costs, revenues, assets and liabilities (including detailed attribution methods, detailed valuation methodology and details of long run incremental cost models) used by the Dominant Provider in addition to the Primary Accounting Documents and the Wholesale Catalogue to prepare the Regulatory Financial Statements;

“Shared Access” means access to the non-voice band frequency of Metallic Path Facilities;

“Site Access” means access to the Dominant Provider’s MDF Sites in order to install and operate an Electronic Communications Network to provide Electronic Communications Services over the Metallic Path Facilities;

“Statutory Auditor” means the Auditor for the time being appointed by the Dominant Provider in accordance with the requirements of the Companies Act 1985 as amended by the Companies Act 1989;

“Statutory Financial Statements” means any annual account required to be prepared by the Dominant Provider in accordance with the requirements of the Companies Act 1985 as amended by the Companies Act 1989;

“Sub-Loop Unbundling” means access to partial Metallic Path Facilities from an end user premises to an intermediate point prior to the main distribution frame;

“Technical Areas” means Co-Location;

“Third Party” means a person providing a public Electronic Communications Service or a person providing a public Electronic Communications Network;

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

“Transfer Charge System Methodology” means the methodology of the system employed by the Dominant Provider which enables an activity to use a service or good from another activity and to account for it as though it had purchased that service or good from an unrelated party (including accounting for it at an appropriate amount);

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

“Wholesale Activities” means any activities wholly and exclusively carried out (or which in the absence of horizontal or vertical integration would wholly and exclusively be carried out) in the course of supplying Wholesale Services and any activities wholly and exclusively carried out in the course of such activities;

“Wholesale Catalogue” means the documentation required to be produced by the Dominant Provider under Condition FA10.26 as amended from time to time in accordance with Condition FA10.28;

“Wholesale Segments” means groups of Wholesale Services; and

“Wholesale Services” means services related to Network Access used by or offered to any Communications Provider (including the Dominant Provider).

3. Except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them and otherwise any word or expression shall have the same meaning as it has in the Act.
4. The Interpretation Act 1978 shall apply as if each of the conditions were an Act of Parliament.
5. Headings and titles shall be disregarded.

Part 2: The conditions

Condition FA1

Requirement to provide Network Access on reasonable request

FA1.1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as Ofcom may from time to time direct.

FA1.2 The provision of Network Access in accordance with paragraph FA1.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may from time to time direct.

FA1.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition FA2

Requirement not to unduly discriminate

FA2.1 The Dominant Provider shall not unduly discriminate against particular persons or against a particular description of persons, in relation to matters connected with Network Access.

Condition FA3

Basis of charges

FA3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition FA1 and/or Condition FA9 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

FA3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.

Condition FA4

Requirement to publish a Reference Offer

FA4.1 Except in so far as Ofcom may otherwise consent in writing, the Dominant Provider shall publish a Reference Offer and act in the manner set out below.

FA4.2 Subject to paragraph FA4.10 below, the Dominant Provider shall ensure that a Reference Offer in relation to the provision of Network Access includes at least the following:

- (a) a description of the Network Access to be provided, including technical characteristics (which shall include information on network configuration where necessary to make effective use of Network Access);
- (b) the locations of the points of Network Access;
- (c) the technical standards for Network Access (including any usage restrictions and other security issues);
- (d) the conditions for access to ancillary, supplementary and advanced services (including operational support systems, information systems or databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing);
- (e) any ordering and provisioning procedures;
- (f) relevant charges, terms of payment and billing procedures;
- (g) details of interoperability tests;
- (h) details of maintenance and quality as follows:
 - (i) specific time scales for the acceptance or refusal of a request for supply and for completion, testing and hand-over or delivery of services and facilities, for provision of support services (such as fault handling and repair);
 - (ii) service level commitments, namely the quality standards that each party must meet when performing its contractual obligations;
 - (iii) the amount of compensation payable by one party to another for failure to perform contractual commitments;
 - (iv) a definition and limitation of liability and indemnity; and
 - (v) procedures in the event of alterations being proposed to the service offerings, for example, launch of new services, changes to existing services or change to prices;
- (i) details of any relevant intellectual property rights;
- (j) a dispute resolution procedure to be used between the parties;

- (k) details of duration and renegotiation of agreements;
- (l) provisions regarding confidentiality of non-public parts of the agreements;
- (m) rules of allocation between the parties when supply is limited (for example, for the purpose of Co-Location or location of masts);
- (n) the standard terms and conditions for the provision of Network Access; and
- (o) the amount applied to:
 - (i) each Network Component used in providing Network Access with the relevant Usage Factors;
 - (ii) the Transfer Charge for each Network Component or combination of Network Components described above;

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

FA4.3 Subject to paragraph FA4.10 below, the Dominant Provider shall ensure that a Reference Offer in relation to the provision of Local Loop Unbundling Services also includes the following:

- (a) the location of MDF Sites;
- (b) the area within which Metallic Path Facilities could be made available from each of the MDF Sites listed under (a) above;
- (c) the availability of Co-Location at each of the MDF Sites listed under (a) above;
- (d) equipment characteristics, including any restrictions on equipment for the purposes of Co-Location at each of the MDF Sites listed under (a) above;
- (e) conditions for Site Access at each of the MDF Sites listed under (a) above, including conditions for access for staff of those Third Parties to whom the Dominant Provider provides Local Loop Unbundling Services;
- (f) conditions for the inspection of MDF Sites at which Co-Location is available or at which Co-Location has been refused on grounds of lack of capacity;
- (g) safety standards;
- (h) the relevant charges (or charging formulae) for each feature, function and facility involved in the provision of Local Loop Unbundling Services; and

- (i) anything which may reasonably be regarded as being likely to materially affect the availability of the relevant Local Loop Unbundling Services.

FA4.4 To the extent that the Dominant Provider provides to itself Network Access that:

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

in a manner that differs from that detailed in a Reference Offer in relation to Network Access provided to any other person, the Dominant Provider shall ensure that it publishes a Reference Offer in relation to the Network Access that it provides to itself which includes, where relevant, at least those matters detailed in paragraphs FA4.2(a)-(o).

FA4.5 The Dominant Provider shall, within one month of the date that this Condition enters into force, publish a Reference Offer in relation to any Network Access that it is providing as at the date that this Condition enters into force.

FA4.6 The Dominant Provider shall update and publish the Reference Offer in relation to any amendments or in relation to any further Network Access provided after the date that this Condition enters into force.

FA4.7 Publication referred to above shall be effected by:

- (a) placing a copy of the Reference Offer on any relevant website operated or controlled by the Dominant Provider; and
- (b) sending a copy of the Reference Offer to Ofcom.

FA4.8 The Dominant Provider shall give Ofcom at least ten days prior written notice of any amendment to the Reference Offer coming into effect, unless such amendment is directed or determined by Ofcom or is required by a notification or enforcement notification issued by Ofcom under sections 94 or 95 of the Act.

FA4.9 The Dominant Provider shall send a copy of the current version of the Reference Offer to any person at that person's written request (or such parts which have been requested). The provision of such a copy of the Reference Offer may be subject to a reasonable charge.

FA4.10 The Dominant Provider shall make such modifications to the Reference Offer as Ofcom may direct from time to time.

FA4.11 The Dominant Provider shall provide Network Access at the charges, terms and conditions in the relevant Reference Offer and shall not depart therefrom either directly or indirectly.

FA4.12 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition FA5

Requirement to notify charges and terms and conditions

FA5.1 Except in so far as Ofcom may otherwise consent in writing, the Dominant Provider shall publish charges, terms and conditions and act in the manner set out below.

FA5.2 Save where otherwise provided in Condition FA6, the Dominant Provider shall send to Ofcom and to every person with which it has entered into an Access Contract covered by Condition FA1 and/or Condition FA9 a written notice of any amendment to the charges, terms and conditions on which it provides Network Access or in relation to any charges, terms and conditions for new Network Access (an "Access Charge Change Notice") not less than 90 days before any such amendment comes into effect for existing Network Access, or not less than 28 days before any such charges, terms and conditions come into effect for new Network Access provided after the date that this Condition enters into force. This obligation for prior notification will not apply where the new or amended charges or terms and conditions are directed or determined by Ofcom or are required by a notification or enforcement notification issued by Ofcom under sections 94 or 95 of the Act.

FA5.3 The Dominant Provider shall ensure that an Access Charge Change Notice includes:

- (a) a description of the Network Access in question;
- (b) a reference to the location in the Dominant Provider's current Reference Offer of the terms and conditions associated with the provision of that Network Access;
- (c) the date on which or the period for which any amendments to charges, terms and conditions will take effect (the "effective date");
- (d) the current and proposed new charge and the relevant Usage Factors applied to each Network Component comprised in that Network Access, reconciled in each case with the current or proposed new charge; and
- (e) the information specified in sub paragraph (d) above with respect to that Network Access to which that paragraph applies.

FA5.4 The Dominant Provider shall not apply any new charge, term and condition identified in an Access Charge Change Notice before the effective date.

FA5.5 To the extent that the Dominant Provider provides to itself Network Access that:

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

in a manner that differs from that detailed in an Access Charge Change Notice in relation to Network Access provided to any other person, the Dominant Provider shall ensure that it sends to Ofcom an Access Charge Change Notice in relation to the

Network Access that it provides to itself which includes, where relevant, at least those matters detailed in paragraphs FA5.3(a)-(e).

Condition FA6

Requirement to notify technical information

FA6.1 Save where Ofcom consents otherwise, where the Dominant Provider:

(a) proposes to provide Network Access covered by Condition FA1 and/or Condition FA9, the terms and conditions for which comprise new:

- (i) technical characteristics (including information on network configuration where necessary to make effective use of the Network Access);
- (ii) locations of the points of Network Access; or
- (iii) technical standards (including any usage restrictions and other security issues), or

(b) proposes to amend an existing Access Contract covered by Condition FA1 and/or Condition FA9 by modifying the terms and conditions listed in paragraph FA6.1(a)(i) to (iii) on which the Network Access is provided,

the Dominant Provider shall publish a written notice (the "Notice") of the new or amended terms and conditions within a reasonable time period, but not less than 90 days before either the Dominant Provider enters into an Access Contract to provide the new Network Access or the amended terms and conditions of the existing Access Contract come into effect. This obligation for prior notification will not apply where the new or amended charges or terms and conditions are directed or determined by Ofcom or are required by a notification or enforcement notification issued by Ofcom under sections 94 or 95 of the Act.

FA6.2 The Dominant Provider shall ensure that the Notice includes:

- (a) a description of the Network Access in question;
- (b) a reference to the location in the Dominant Provider's Reference Offer of the relevant terms and conditions; and
- (c) the date on which or the period for which the Dominant Provider may enter into an Access Contract to provide the new Network Access or any amendments to the relevant terms and conditions will take effect (the "effective date").

FA6.3 The Dominant Provider shall not enter into an Access Contract containing the terms and conditions identified in the Notice or apply any new relevant terms and conditions identified in the Notice before the effective date.

FA6.4 Publication referred to in paragraph FA6.1 shall be effected by:

- (a) placing a copy of the Notice on any relevant website operated or controlled by the Dominant Provider;
- (b) sending a copy of the Notice to Ofcom; and
- (c) sending a copy of the Notice to any person at that person's written request, and where the Notice identifies a modification to existing relevant

terms and conditions, to every person with which the Dominant Provider has entered into an Access Contract covered by Condition FA1 and/or Condition FA9. The provision of such a copy of Notice may be subject to a reasonable charge.

Condition FA7

Quality of service

FA7.1 The Dominant Provider shall publish all such information for the purposes of securing transparency as to the quality of service in relation to Network Access in relation to Network Access provided by the Dominant Provider in such manner and form as Ofcom may from time to time direct.

FA7.2 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition FA8

Requests for new Network Access

FA8.1 The Dominant Provider shall for the purposes of transparency publish reasonable guidelines, in relation to requests for new Network Access made to it. Such guidelines shall detail:

- (a) the form in which such a request should be made;
- (b) the information that the Dominant Provider requires in order to consider a request for new Network Access; and
- (c) the time scales in which such requests will be handled by the Dominant Provider in accordance with this Condition.

FA8.2 Such guidelines shall be published within two months of the date that this Condition enters into force following a consultation with Ofcom and Third Parties. The Dominant Provider shall keep the guidelines under review and consult with relevant Third Parties and Ofcom before making any amendments to the guidelines.

FA8.3 The Dominant Provider shall, upon a reasonable request from a Third Party considering making a request for new Network Access, provide that Third Party with information so as to enable that Third Party to make a request for new Network Access. Such information shall be provided within a reasonable period.

FA8.4 On receipt of a written request for new Network Access the Dominant Provider shall ensure that the requirements of this Condition are met. A modification of a request for new Network Access which has previously been submitted to the Dominant Provider, and rejected by the Dominant Provider, shall be considered as a new request.

FA8.5 Within five working days of receipt of a request under paragraph FA8.4, the Dominant Provider shall acknowledge that request in writing.

FA8.6 Within fifteen working days of receipt of a request under paragraph FA8.4 the Dominant Provider shall respond in writing to the requesting Third Party in one of the following ways:

- (a) the Dominant Provider shall confirm that the request will be met and shall confirm that the following will be prepared:
 - (i) the timetable for the provision of the new Network Access;
 - (ii) an initial offer of terms and conditions for the provision of the new Network Access; and
 - (iii) the timetable for the agreement of technical issues.
- (b) the Dominant Provider shall confirm that a feasibility study is reasonably required in order to determine whether the request made is reasonable and the Dominant Provider shall set out its objective reasons for the need for such a study;
- (c) the Dominant Provider shall confirm that the request is not sufficiently well formulated and, where it does so, the Dominant Provider shall detail all of the defects in the request which has been made; or

(d) the Dominant Provider shall confirm that the request is refused on the basis that it is not reasonable and, where it does so, the Dominant Provider shall detail its reasons for refusal.

FA8.7 Where the Dominant Provider responds to a request under paragraph FA8.4 in accordance with paragraph FA8.6(a) it shall, within thirty five working days of receipt of a request under paragraph FA8.4, respond further to the requesting Third Party in writing and:

- (a) confirm the timetable for the provision of the new Network Access;
- (b) provide an initial offer of terms and conditions for the provision of the new Network Access; and
- (c) confirm the timetable for the agreement of technical issues.

FA8.8 Where the Dominant Provider responds to a request under paragraph FA8.4 in accordance with paragraph FA8.6(a) and determines, due to a genuine error of fact, that it reasonably needs to complete a feasibility study, it may, as soon as practicable and in any event, within thirty five working days of receipt of a request under paragraph FA8.4, inform the requesting Third Party that a feasibility study is reasonably required and set out its objective reasons for such a study.

FA8.9 Where FA8.8 applies the Dominant Provider shall, within forty five working days from the date that the Dominant Provider informs the requesting Third Party that a feasibility study is reasonably required, respond further to the requesting Third Party, in writing, in one of the following ways:

(a) the Dominant Provider shall confirm that the request will be met and shall:

- (i) confirm the timetable for the provision of the new Network Access;
- (ii) provide an initial offer of terms and conditions for the provision of the new Network Access; and
- (iii) confirm the timetable for the agreement of technical issues; or

(b) the Dominant Provider shall confirm that the request is refused on the basis that it is not reasonable and, where it does so, the Dominant Provider shall detail its reasons for refusal. The Dominant Provider shall provide to Ofcom a copy of the feasibility study and shall provide to the requesting Third Party a non-confidential copy of the feasibility study.

FA8.10 The time limit set out in paragraph FA8.9 above shall be extended up to seventy working days from the date that the Dominant Provider informs the requesting Third Party that a feasibility study is reasonably required pursuant to paragraph FA8.8, if:

(a) circumstances have arisen which, despite the Dominant Provider using its best endeavours, prevent it from completing the feasibility study within forty five working days of the date that the requesting Third Party was informed of the need for a feasibility study pursuant to paragraph FA8.8; or

(b) the Third Party and the Dominant Provider agree to extend the time limit up to seventy working days.

FA8.11 The time limit set out in paragraph FA8.9 above shall be extended beyond seventy working days from the date that the Dominant Provider informs the requesting Third Party that a feasibility study is reasonably required pursuant to paragraph FA8.8, if:

- (a) Ofcom agrees; or
- (b) the Third Party and the Dominant Provider agree to extend the time limit beyond seventy working days.

FA8.12 Where the Dominant Provider responds to a request under paragraph FA8.4 in accordance with paragraph FA8.6(b) the Dominant Provider shall, within sixty working days of receipt of a request under paragraph FA8.4, respond further to the requesting Third Party, in writing, in one of the following ways:

- (a) the Dominant Provider shall confirm that the request will be met and shall:
 - (i) confirm the timetable for the provision of the new Network Access;
 - (ii) provide an initial offer of terms and conditions for the provision of the new Network Access; and
 - (iii) confirm the timetable for the agreement of technical issues; or
- (b) the Dominant Provider shall confirm that the request is refused on the basis that it is not reasonable and, where it does so, the Dominant Provider shall detail its reasons for refusal. The Dominant Provider shall provide to Ofcom a copy of the feasibility study and shall provide to the requesting Third Party a non-confidential copy of the feasibility study.

FA8.13 The time limit set out in paragraph FA8.12 above shall be extended up to eighty five working days of receipt of a request under paragraph FA8.4, if:

- (a) circumstances have arisen which, despite the Dominant Provider using its best endeavours, prevent it from completing the feasibility study within sixty working days of receipt of a request under paragraph FA8.4; or
- (b) the Third Party and the Dominant Provider agree to extend the time limit up to eighty five working days.

FA8.14 The time limit set out in paragraph FA8.12 above shall be extended beyond eighty five working days of receipt of a request under paragraph FA8.4, if:

- (a) Ofcom agrees; or
- (b) the Third Party and the Dominant Provider agree to extend the time limit beyond eighty five working days.

FA8.15 Within two months of the date that this Condition enters into force the Dominant Provider shall provide Ofcom with a description of the processes it has put in place to ensure compliance with this Condition. It shall keep those processes under review to ensure that they remain adequate for that purpose.

FA8.16 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition FA9

Requirement to provide Local Loop Unbundling Services

FA9.1 Where a Third Party reasonably requests in writing Local Loop Unbundling Services, the Dominant Provider shall provide those Local Loop Unbundling Services.

FA9.2 The provision of Local Loop Unbundling Services in accordance with paragraph FA9.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may direct from time to time.

FA9.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition FA10

Requirements to have cost accounting systems and accounting separation

General requirements

FA10.1 Except in so far as Ofcom may consent otherwise in writing, the Dominant Provider shall act in the manner set out in this Condition.

FA10.2 Ofcom may from time to time make such directions as it considers appropriate in relation to the Dominant Provider's Cost Accounting System, Accounting Separation System and its obligations under this Condition.

FA10.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

FA10.4 For the purpose of this Condition, publication shall be effected by:

- (a) placing a copy of the relevant information on any relevant website operated or controlled by the Dominant Provider; and
- (b) sending a copy of the relevant information to any person at that person's written request.

Requirements relating to the preparation, audit, delivery and publication of the Regulatory Financial Statements

FA10.5 The Dominant Provider shall in respect of the Market, Technical Areas and the Disaggregated Activities (as applicable) for each Financial Year:

- (a) prepare such Regulatory Financial Statements as directed by Ofcom from time to time in accordance with the Accounting Documents (the relevant Accounting Documents to be identified in the Regulatory Financial Statements by reference to their date);
- (b) secure the expression of an audit opinion upon the Regulatory Financial Statements as directed by Ofcom from time to time;
- (c) deliver to Ofcom the Regulatory Financial Statements and corresponding audit opinion identified as directed by Ofcom from time to time and in accordance with Condition FA10.6(a);
- (d) publish the Regulatory Financial Statements and corresponding audit opinion as directed by Ofcom from time to time and in accordance with Condition FA10.6(b) and (c);
- (e) ensure that any Regulatory Financial Statement and corresponding audit opinion that it delivers to Ofcom and/or publishes are fit for such purpose (or purposes), if any, as notified by Ofcom in writing; and
- (f) in so far as it is reasonably practicable to monitor the effect of such changes, deliver to Ofcom a report detailing any changes in the Accounting Documents, any Process and any other methodology which caused any figure presented on any one of the Regulatory Financial Statements to change by more than 5% from the figure that would have been presented had

such a change not been made. Any such report shall include details sufficient to render transparent such changes in accordance with any relevant direction Ofcom may make from time to time.

FA10.6 The Dominant Provider shall:

- (a) deliver to Ofcom copies of the Regulatory Financial Statements and any corresponding audit opinion, each and all of which shall be in the form in which they are ultimately to be published, at least two weeks before they are required to be published;
- (b) publish the Regulatory Financial Statements and any corresponding audit opinions within 4 months after the end of the period to which they relate; and
- (c) publish with the Regulatory Financial Statements any written statement made by Ofcom and provided to the Dominant Provider commenting on the data in, the notes to or the presentation of any or all of the Regulatory Financial Statements and/or the Accounting Documents.

FA10.7 The Dominant Provider shall make such amendments to the form and content of the Regulatory Financial Statements as are necessary to give effect fully to the requirements of this Condition. The Dominant Provider shall provide to Ofcom particulars of any such amendment, the reasons for it and its effect, when it delivers the Regulatory Financial Statements to Ofcom.

FA10.8 The Dominant Provider shall prepare all Regulatory Financial Statements, explanations or other information required by virtue of this Condition on a current cost basis and shall be capable of doing so in relation to any period. Such Regulatory Financial Statements, explanations or other information shall be, in the opinion of Ofcom, meaningfully reconcilable to the Statutory Financial Statements.

FA10.9 The Dominant Provider shall ensure that Accounting Policies shall be applied consistently within the same Regulatory Financial Statements, between Regulatory Financial Statements for the same Financial Year and from one Financial Year to the next. Each Regulatory Financial Statement shall include Prior Year Comparatives which shall be prepared on a basis consistent with Current Year Figures. The Dominant Provider may depart from this requirement in preparing the Regulatory Financial Statements for a Financial Year if there are reasons for doing so provided that the particulars of the departure, the reasons for it and its effect are stated in a note in the Regulatory Financial Statements in accordance with Accounting Standards and GAAP.

FA10.10 The Dominant Provider shall secure that sufficient checks, controls and meaningful reconciliations are performed between figures contained in the Regulatory Financial Statements and the accounting records (or between figures supplied by either the Cost Accounting System or the Accounting Separation System upon which the Regulatory Financial Statements rely and (i) other figures supplied by either the Cost Accounting System or the Accounting Separation System and/or (ii) the accounting records) to:

- (a) enable the Regulatory Auditor to conclude that, in its opinion, both the Cost Accounting System and the Accounting Separation System complies with the Accounting Documents; and

(b) enable the Regulatory Financial Statements to be audited and an audit opinion expressed upon them in accordance with any relevant direction of Ofcom under this Condition.

FA10.11 The Dominant Provider shall preserve records sufficient to provide an adequate explanation of each Regulatory Financial Statement for a period of six years from the date on which each Regulatory Financial Statement is delivered to Ofcom.

Requirements relating to audit of the Regulatory Financial Statements

FA10.12 The Regulatory Auditor that the Dominant Provider from time to time appoints shall at all times be satisfactory to Ofcom having regard to such matters as Ofcom considers appropriate. The Dominant Provider shall notify Ofcom in writing of the Auditor appointed to secure compliance with this Condition before the Auditor carries out any work for that purpose. The Dominant Provider shall notify Ofcom of any proposed change of Regulatory Auditor 28 days before effect is given to that change.

FA10.13 In the event that the Regulatory Auditor is in the opinion of Ofcom unsatisfactory, the Dominant Provider shall appoint and instruct an Alternative Regulatory Auditor that is at all times satisfactory to Ofcom having regard to such matters as Ofcom consider appropriate. The Dominant Provider shall ensure that the Alternative Regulatory Auditor:

(a) carries out such on going duties as are required to secure compliance with this Condition;

(b) carries out work or further work, in addition to that performed by the Statutory Auditor and/or by the former Regulatory Auditor, in relation to such matters connected to compliance with this Condition as are of concern to Ofcom and notified to the Dominant Provider in writing; and/or

(c) re-performs work previously performed by the Statutory Auditor and/or by the former Regulatory Auditor in relation to such matters connected to compliance with this Condition as are of concern to Ofcom and notified to the Dominant Provider in writing.

FA10.14 The Dominant Provider shall extend to the Alternative Regulatory Auditor such assistance and co-operation as would be extended to the Statutory Auditor and/or to the Regulatory Auditor and, to the extent similar assistance and co-operation may be required from the Statutory Auditor and/or from the former Regulatory Auditor, the Dominant Provider shall use its best endeavours to secure such assistance and co-operation.

FA10.15 The Dominant Provider's letter of engagement appointing the Regulatory Auditor shall include such provisions acknowledging the acceptance by the Regulatory Auditor of duties and responsibilities to Ofcom in respect of its audit work, audit report and audit opinion as are consistent with the ICAEW Guidance.

FA10.16 The Dominant Provider shall use its best endeavours to obtain from the Regulatory Auditor any further explanation and clarification of any audit opinion required under this Condition and any other information in respect of the matters which are the subject of that audit opinion as Ofcom shall require.

Requirements relating to the Primary and Secondary Accounting Documents

FA10.17 The Dominant Provider shall review the Primary Accounting Documents as they exist before the coming into force of this Condition, and to the extent these documents do not comply with this Condition, the Dominant Provider shall by four months after the date on which this Condition come into force make changes to the Primary Accounting Documents to render them compliant. Such changes shall be delivered to Ofcom on or before four months after the date on which this Condition comes into force together with a copy of the Primary Accounting Documents marked up to show the effect of such changes. All such changes shall take effect on the date on which they are delivered to Ofcom.

FA10.18 Following the review of the Primary Accounting Documents in accordance with Condition FA10.17, the Dominant Provider shall prepare the Secondary Accounting Documents in accordance with the Primary Accounting Documents and the requirements of this Condition. The Secondary Accounting Documents shall be delivered to Ofcom eight months after the date on which this Condition come into force.

FA10.19 the Dominant Provider shall,

- (a) publish the Primary Accounting Documents on or by four months after the date on which this Condition come into force following their first review in accordance with Condition FA10.17;
- (b) publish the Secondary Accounting Documents following their first review in accordance with Condition FA10.18 on or prior to the date of publication of the Regulatory Financial Statements in accordance with Condition FA10.5 and FA10.6; and
- (c) thereafter publish, and deliver to Ofcom, details of any amendment to the Accounting Documents as soon as practicable, and in any event within 28 days of the incorporation of such an amendment into the Accounting Documents. Such amendments shall take effect when delivered to Ofcom.

FA10.20 Insofar as there is any inconsistency between any or all of the Primary Accounting Documents, the Primary Accounting Documents shall have the following order of priority:

- (a) the Regulatory Accounting Principles;
- (b) the Attribution Methods;
- (c) the Transfer Charge System Methodology;
- (d) the Accounting Policies;
- (e) the Long Run Incremental Cost Methodology.

Requirements relating to the up-dating of systems, Accounting Documents and form and content

FA10.21 The Dominant Provider shall make such amendments as are from time to time required to:

- (a) the Cost Accounting System and the Accounting Separation System;
- (b) the Accounting Documents; and
- (c) the form and content of the Financial Statements,

in order to ensure that they are consistent with, and give effect fully to:

- (i) any modifications of any SMP Conditions;
- (ii) any formal undertakings given by the Dominant Provider to Ofcom following investigations by them into possible contraventions by the Dominant Provider of any SMP Conditions or any provisions of the Act and following any dispute considered by Ofcom under the Act; and
- (iii) any enforcement notifications, directions, consents and determinations given or made by Ofcom from time to time under any SMP Condition or under the Act or in relation to any dispute considered by Ofcom under the Act,

and the Dominant Provider shall make such amendments, and notify Ofcom in writing of such amendments, within three months of the modifications, formal undertakings, enforcement notifications, directions, consents and determinations having been made, provided that the requirements of this paragraph shall be suspended pending the final disposal of any proceedings seeking to have any such modifications, enforcement notifications, directions, consents, or determinations, quashed, set aside, modified or varied.

Requirements relating to deficiencies in the Regulatory Financial Statements and the Accounting Documents

FA10.22 Where Ofcom has reasonable grounds to believe that any or all of the Regulatory Financial Statements and/or Accounting Documents are deficient, the Dominant Provider shall, where directed by Ofcom:

- (a) amend the Accounting Documents in order to remedy the deficiencies identified by Ofcom;
- (b) restate the Regulatory Financial Statements identified by Ofcom as requiring restatement in accordance with the Accounting Documents which have, where necessary, been amended pursuant to subparagraph (a);
- (c) secure in accordance with any relevant direction of Ofcom under this Condition the expression of an audit opinion on the restated Regulatory Financial Statements;
- (d) deliver to Ofcom the restated Regulatory Financial Statements and corresponding audit opinion; and
- (e) publish the restated Regulatory Financial Statements and corresponding audit opinion.

Requirements relating to the maintenance of sufficient accounting records

FA10.23 The Dominant Provider shall maintain accounting records in a form which, on a historical cost basis and on a current cost basis:

(a) enables the Market, Technical Areas, and the Disaggregated Activities (as applicable) to be separately identified; and the costs, revenues, assets and liabilities of the Market, Technical Areas and the Disaggregated Activities (as applicable) to be separately attributable;

(b) enables the Network Services, and, insofar as they have been disaggregated in terms of Network Activities, each of the Network Activities, to be separately identified; and the costs, revenues, assets and liabilities of the Network Services, and, insofar as they have been disaggregated in terms of Network Activities, each of the Network Activities, to be separately attributable;

(c) shows and explains the transactions of each of the Market, Technical Areas, and Disaggregated Activities (as applicable); and

(d) enables the Accounting Separation Market Activities and, insofar as these comprise or use Accounting Separation Activities, each of the Accounting Separation Activities, to be separately identified; and the revenues, costs, assets and liabilities of the Accounting Separation Market Activities and, insofar as these comprise or use Accounting Separation Activities, the revenues, costs, assets and liabilities of each of those Accounting Separation Activities, to be separately attributable;

(e) shows and explains the transactions of the Accounting Separation Market Activities and, insofar as these comprise or use Accounting Separation Activities, the transactions of each of the Accounting Separation Activities; and

(f) enables the Dominant Provider to prepare Regulatory Financial Statements (including any disaggregation inherent therein) which comply with the requirements of these Conditions both on a historical cost basis and on a current cost basis.

FA10.24 The accounting records referred to in Condition FA10.23 and all associated documentation shall be, as appropriate:

(a) maintained in accordance with the Accounting Documents;

(b) maintained in order to ensure compliance with this Condition;

(c) sufficient to enable the Regulatory Financial Statements to have expressed upon them any relevant audit opinion required under this Condition;

(d) sufficient to ensure that charges for Network Access can be shown to be fair and reasonable and not to be unduly discriminatory; and

(e) sufficient to provide a complete justification of the Dominant Provider's charges for Network Access.

Requirement to facilitate on-demand reporting

FA10.25 The Dominant Provider shall ensure that its accounting and reporting arrangements (including Processes and Cost Accounting System) are sufficient to enable the Dominant Provider, at all times, to be capable of preparing in relation to

any specified calendar month or months a financial statement in accordance with the Accounting Documents.

Requirements relating to the preparation and maintenance of a Wholesale Catalogue

FA10.26 The Dominant Provider shall ensure that by three months after the date on which this Condition comes into force,

(a) all of its Wholesale Services as at the date on which this Condition comes into force are identified as either External Wholesale Services and placed on the External Wholesale Services List or Internal Wholesale Services and placed on the Internal Wholesale Services List or, where appropriate, are identified as being both External Wholesale Services and Internal Wholesale Services and place on both the External Wholesale Services List and the Internal Wholesale Services List;

(b) an accurate description is prepared of all the Dominant Provider's Internal Wholesale Services, External Wholesale Services and Wholesale Activities as at the date this Condition comes into force sufficient in the opinion of Ofcom to enable it to determine whether these activities have been appropriately identified and sufficiently described; and

(c) an accurate description is prepared of all of the Dominant Provider's Network Services and the extent to which these activities are used in the course of supplying Wholesale Services as at the date this Condition comes into force sufficient in the opinion of Ofcom to enable it to determine whether these activities and their use have been appropriately identified and adequately described.

FA10.27 The Wholesale Catalogue shall be delivered to Ofcom as soon as practicable after the date on which this Condition comes into force and in any event by four months after that date.

FA10.28 The Dominant Provider shall ensure that when from time to time Wholesale Activities and Network Activities used in the course of supplying Wholesale Services vary from those as at the date on which this Condition comes into force (including, amongst other changes, new activities and the cessation of former activities) it shall within 28 days of such variation:

(a) amend the Wholesale Catalogue to reflect such variation; and

(b) deliver to Ofcom the amended version of the Wholesale Catalogue marked up to show those amendments.

The revised version of the Wholesale Catalogue shall be sufficient to enable Ofcom to determine whether such activities have been identified appropriately and their use categorised correctly.

Further accounting separation requirements

FA10.29 The Dominant Provider shall maintain a separation for accounting purposes of the Accounting Separation Market Activities from other activities and of Accounting Separation Activities from other activities, so as to:

(a) identify all elements of revenue, cost, assets and liabilities, with the basis of their calculation and the detailed attribution methods used, related to the Accounting Separation Market Activities and Accounting Separation Activities including an itemised breakdown of fixed assets; and

(b) ensure that Accounting Separation Market Activities and Accounting Separation Activities are identified and are recorded at an appropriate amount in accordance with the Accounting Documents.

Requirements relating to the demonstration of non-discrimination

FA10.30 The Dominant Provider shall ensure it is able to demonstrate that at any point in time:

(a) where a Network Service or combination of Network Services is used by the Dominant Provider in providing Internal Wholesale Services, the amount applied and incorporated in the Transfer Charge for the Internal Wholesale Service in respect of the use of the Network Services is equivalent to the amount applied and incorporated for the use of the Network Services or combination of Network Services in the charge payable for an equivalent External Wholesale Service;

(b) the same amount as applied and incorporated in the Transfer Charge for the Internal Wholesale Service in subparagraph (a) in respect of the use of the Network Services is applied to the Network Service or combination of Network Services whenever it is used by the Dominant Provider in providing an Internal Wholesale Service;

(c) the same amount as applied and incorporated in the Transfer Charge for the equivalent External Wholesale Service in subparagraph (a) in respect of the use of the Network Services is applied to the Network Service or combination of Network Services whenever it is used by the Dominant Provider in providing an External Wholesale Service; and

(d) the amount applied and incorporated in the Transfer Charge for the Internal Wholesale Service in subparagraph (a) in respect of the use of the Network Services shall be the cost of those Network Services unless the Network Service concerned is one of the Accounting Separation Activities.

SCHEDULE 2

The conditions imposed on Kingston Communications plc under sections 45, 87 and 88 of the Communications Act 2003 as a result of the analysis of the market for wholesale local access services within the Hull Area in which Kingston Communications plc has been found to have significant market power

Part 1: Application, definition and interpretation of the conditions in Part 2

1. The conditions in Part 2 of this Schedule shall apply to the market for wholesale local access services within the Hull Area and shall also apply to the provision of Co-Location.

2. In this Schedule:

“Act” means the Communications Act 2003;

“Access Charge Change Notice” has the meaning given to it in Condition FB5.2;

“Co-Location” means the provision of space on reasonable terms permitting a Third Party to occupy part of an MDF Site reasonably sufficient to permit the use of one or more Metallic Path Facilities, and in particular to permit the connection of the Dominant Provider’s Electronic Communications Network with the Electronic Communications Network of a Third Party at that location;

“Dominant Provider” means Kingston Communications plc, whose registered company number is 2150618, and any Kingston Communications plc subsidiary or holding company, or any subsidiary of that holding company, all as defined by Section 736 of the Companies Act 1985 as amended by the Companies Act 1989;

“Market” means the market for wholesale local access services within the Hull Area;

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

“Metallic Path Facilities” means a circuit comprising a pair of twisted metal wires employing electric, magnetic, electro-magnetic, electro-chemical or electro-mechanical energy to convey Signals when connected to Apparatus or an Electronic Communications Network;

“Network Component” means, to the extent they are used in the Market and in the provision of Co-Location, the network components specified in any direction given by Ofcom from time to time for the purpose of these Conditions;

“Ofcom” means the Office of Communications as established pursuant to section 1(1) of the Office of Communications Act 2002;

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

“Third Party” means a person providing a public Electronic Communications Service or a person providing a public Electronic Communications Network;

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

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

3. Except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them and otherwise any word or expression shall have the same meaning as it has in the Act.
4. The Interpretation Act 1978 shall apply as if each of the conditions were an Act of Parliament.
5. Headings and titles shall be disregarded.

Part 2: The conditions

Condition FB1

Requirement to provide Network Access on reasonable request

FB1.1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as Ofcom may from time to time direct.

FB1.2 The provision of Network Access in accordance with paragraph FB1.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may from time to time direct.

FB1.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition FB2

Requirement not to unduly discriminate

FB2.1 The Dominant Provider shall not unduly discriminate against particular persons or against a particular description of persons, in relation to matters connected with Network Access.

Condition FB3

Basis of charges

FB3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition FB1 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

FB3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.

Condition FB4

Requirement to publish a Reference Offer

FB4.1 Except in so far as Ofcom may otherwise consent in writing, the Dominant Provider shall publish a Reference Offer and act in the manner set out below.

FB4.2 Subject to paragraph FB4.9 below, the Dominant Provider shall ensure that a Reference Offer in relation to the provision of Network Access includes at least the following:

- (a) a description of the Network Access to be provided, including technical characteristics (which shall include information on network configuration where necessary to make effective use of Network Access);
- (b) the locations of the points of Network Access;
- (c) the technical standards for Network Access (including any usage restrictions and other security issues);
- (d) the conditions for access to ancillary, supplementary and advanced services (including operational support systems, information systems or databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing);
- (e) any ordering and provisioning procedures;
- (f) relevant charges, terms of payment and billing procedures;
- (g) details of interoperability tests;
- (h) details of maintenance and quality as follows:
 - (i) specific time scales for the acceptance or refusal of a request for supply and for completion, testing and hand-over or delivery of services and facilities, for provision of support services (such as fault handling and repair);
 - (ii) service level commitments, namely the quality standards that each party must meet when performing its contractual obligations;
 - (iii) the amount of compensation payable by one party to another for failure to perform contractual commitments;
 - (iv) a definition and limitation of liability and indemnity; and
 - (v) procedures in the event of alterations being proposed to the service offerings, for example, launch of new services, changes to existing services or change to prices;
- (i) details of any relevant intellectual property rights;
- (j) a dispute resolution procedure to be used between the parties;

- (k) details of duration and renegotiation of agreements;
- (l) provisions regarding confidentiality of non-public parts of the agreements;
- (m) rules of allocation between the parties when supply is limited (for example, for the purpose of Co-Location or location of masts);
- (n) the standard terms and conditions for the provision of Network Access; and
- (o) the amount applied to:
 - (i) each Network Component used in providing Network Access with the relevant Usage Factors;
 - (ii) the Transfer Charge for each Network Component or combination of Network Components described above;
 reconciled in each case to the charge payable by a Communications Provider other than the Dominant Provider.

FB4.3 To the extent that the Dominant Provider provides to itself Network Access that:

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

in a manner that differs from that detailed in a Reference Offer in relation to Network Access provided to any other person, the Dominant Provider shall ensure that it publishes a Reference Offer in relation to the Network Access that it provides to itself which includes, where relevant, at least those matters detailed in paragraphs FB4.2(a)-(o).

FB4.4 The Dominant Provider shall, within one month of the date that this Condition enters into force, publish a Reference Offer in relation to any Network Access that it is providing as at the date that this Condition enters into force.

FB4.5 The Dominant Provider shall update and publish the Reference Offer in relation to any amendments or in relation to any further Network Access provided after the date that this Condition enters into force.

FB4.6 Publication referred to above shall be effected by:

- (a) placing a copy of the Reference Offer on any relevant website operated or controlled by the Dominant Provider; and
- (b) sending a copy of the Reference Offer to Ofcom.

FB4.7 The Dominant Provider shall give Ofcom at least ten days prior written notice of any amendment to the Reference Offer coming into effect, unless such amendment is directed or determined by Ofcom or is required by a notification or enforcement notification issued by Ofcom under sections 94 or 95 of the Act.

FB4.8 The Dominant Provider shall send a copy of the current version of the Reference Offer to any person at that person's written request (or such parts which have been requested). The provision of such a copy of the Reference Offer may be subject to a reasonable charge.

FB4.9 The Dominant Provider shall make such modifications to the Reference Offer as Ofcom may direct from time to time.

FB4.10 The Dominant Provider shall provide Network Access at the charges, terms and conditions in the relevant Reference Offer and shall not depart therefrom either directly or indirectly.

FB4.11 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition FB5

Requirement to notify charges and terms and conditions

FB5.1 Except in so far as Ofcom may otherwise consent in writing, the Dominant Provider shall publish charges, terms and conditions and act in the manner set out below.

FB5.2 Save where otherwise provided in Condition FB6, and except in so far as Ofcom may otherwise consent in writing, the Dominant Provider shall send to Ofcom and to every person with which it has entered into an Access Contract covered by Condition FB1 a written notice of any amendment to the charges, terms and conditions on which it provides Network Access or in relation to any charges, terms and conditions for new Network Access (an "Access Charge Change Notice") not less than 90 days before any such amendment comes into effect for existing Network Access, or not less than 28 days before any such charges, terms and conditions come into effect for new Network Access provided after the date that this Condition enters into force. This obligation for prior notification will not apply where the new or amended charges or terms and conditions are directed or determined by Ofcom or are required by a notification or enforcement notification issued by Ofcom under sections 94 or 95 of the Act.

FB5.3 The Dominant Provider shall ensure that an Access Charge Change Notice includes:

- (a) a description of the Network Access in question;
- (b) a reference to the location in the Dominant Provider's current Reference Offer of the terms and conditions associated with the provision of that Network Access;
- (c) the date on which or the period for which any amendments to charges, terms and conditions will take effect (the "effective date");
- (d) the current and proposed new charge and the relevant Usage Factors applied to each Network Component comprised in that Network Access, reconciled in each case with the current or proposed new charge; and
- (e) the information specified in sub paragraph (d) above with respect to that Network Access to which that paragraph applies.

FB5.4 The Dominant Provider shall not apply any new charge, term and condition identified in an Access Charge Change Notice before the effective date.

FB5.5 To the extent that the Dominant Provider provides to itself Network Access that:

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

in a manner that differs from that detailed in an Access Charge Change Notice in relation to Network Access provided to any other person, the Dominant Provider shall ensure that it sends to Ofcom an Access Charge Change Notice in relation to the

Network Access that it provides to itself which includes, where relevant, at least those matters detailed in paragraphs FB5.3(a)-(e).

Condition FB6

Requirement to notify technical information

FB6.1 Save where Ofcom consents otherwise, where the Dominant Provider:

(a) proposes to provide Network Access covered by Condition FB1, the terms and conditions for which comprise new:

- (i) technical characteristics (including information on network configuration where necessary to make effective use of the Network Access);
- (ii) locations of the points of Network Access; or
- (iii) technical standards (including any usage restrictions and other security issues), or

(b) proposes to amend an existing Access Contract covered by Condition FB1 by modifying the terms and conditions listed in paragraph FB6.1(a)(i) to (iii) on which the Network Access is provided,

the Dominant Provider shall publish a written notice (the "Notice") of the new or amended terms and conditions within a reasonable time period, but not less than 90 days before either the Dominant Provider enters into an Access Contract to provide the new Network Access or the amended terms and conditions of the existing Access Contract come into effect. This obligation for prior notification will not apply where the new or amended charges or terms and conditions are directed or determined by Ofcom or are required by a notification or enforcement notification issued by Ofcom under sections 94 or 95 of the Act.

FB6.2 The Dominant Provider shall ensure that the Notice includes:

- (a) a description of the Network Access in question;
- (b) a reference to the location in the Dominant Provider's Reference Offer of the relevant terms and conditions; and
- (c) the date on which or the period for which the Dominant Provider may enter into an Access Contract to provide the new Network Access or any amendments to the relevant terms and conditions will take effect (the "effective date").

FB6.3 The Dominant Provider shall not enter into an Access Contract containing the terms and conditions identified in the Notice or apply any new relevant terms and conditions identified in the Notice before the effective date.

FB6.4 Publication referred to in paragraph FB6.1 shall be effected by:

- (a) placing a copy of the Notice on any relevant website operated or controlled by the Dominant Provider;
- (b) sending a copy of the Notice to Ofcom; and
- (c) sending a copy of the Notice to any person at that person's written request, and where the Notice identifies a modification to existing relevant

terms and conditions, to every person with which the Dominant Provider has entered into an Access Contract covered by Condition FB1. The provision of such a copy of Notice may be subject to a reasonable charge.

Annex 2

Directions

Schedule 1: Charge ceilings Schedules 2-7: Regulatory financial reporting

SCHEDULE 1

Direction under Section 49 of the Act and Condition FA9.2 imposed on BT as a result of the market power determination made by Ofcom that BT has significant market power in the market for wholesale local access in the UK excluding the Hull Area.

WHEREAS:

- A. On 16 December 2004, in accordance with Section 79(4) of the Act, Ofcom published a Notification identifying the wholesale local access market in the UK excluding the Hull Area and making a market power determination that BT has significant market power in respect of that market;
- B. On 16 December 2004, in accordance with Section 48(1) of the Act, Ofcom published a Notification setting certain SMP conditions on BT to take effect on 16 December 2004, including SMP Condition FA9, which requires BT to provide specific LLU services on fair and reasonable terms, conditions and charges as Ofcom may direct from time to time;
- C. This Direction concerns matters to which Condition FA9 relates;
- D. For the reasons set out Sections 8 and 9 of the explanatory statement accompanying this Direction, in accordance with Section 49(2) of the Act, Ofcom is satisfied that this Direction is:
- (a) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
 - (b) not such as to discriminate unduly against particular persons or against a particular description of persons;
 - (c) proportionate to what it is intended to achieve; and
 - (d) in relation to what it is intended to achieve, transparent;
- E. For the reasons set out in Sections 8 and 9 of the explanatory statement accompanying this Direction, Ofcom is satisfied that it is acting in accordance with the relevant duties set out in Sections 3 and 4 of the Act in giving this Direction;

F. On 26 August 2004, Ofcom published a Notification of a proposal to give this Direction in accordance with section 49(4) of the Act and invited representations about the proposed Direction by 8 October 2004;

G. In accordance with Section 50 of the Act, a copy of the Notification was sent to the Secretary of State, the European Commission and the regulatory authorities of every other EU Member State;

H. Ofcom has considered every representation about the proposed Direction duly made to it;

NOW, THEREFORE, PURSUANT TO CONDITION FA9.2, OFCOM HEREBY DIRECTS THAT:

1. The Dominant Provider shall not charge more than the amounts set out in Table 1 below for the Specified Local Loop Unbundling Services:

Table 1: Charge ceilings for the Specified Local Loop Unbundling Services

Local Loop Unbundling Service	Type of Charge	(£)
Shared Access		
Shared MPF	rental per annum	15.60
Shared MPF	connection	34.86
Shared MPF Hand Back (no TAM)	disconnection	19.19
Shared MPF Hand Back (with TAM)	disconnection	13.83
Shared MPF standard line test - Right When Tested	test	3.75
Metallic Path Facilities		
MPF Transfer	connection	34.86
MPF New Provide	connection	168.38
MPF Minor Network Intervention	connection	315.76
MPF Major Network Intervention	connection	643.36
MPF Small Network Build	connection	2776.27
MPF Hand-back charge - Transfer	disconnection	4.24
MPF Hand-back charge – New Provide	disconnection	4.24
Internal Tie Cables*		
Internal Tie Cables (1)	rental per annum	19.48
Internal Tie Cables (1)	connection	476.89
Internal Tie Cables (2)	rental per annum	14.08
Internal Tie Cables (2)	connection	376.83
Internal Tie Cables (2) – Jointing	fixed charge per cable	143.92
MDF Licence Fee	per cable charge per annum	23.64
External Tie Cables		
BT provided cables (100 pairs)	rental per annum	104.93
BT provided cables (100 pairs)	connection	1340.11
BT provided cables (100 pairs) (additional 100m)	rental per annum	71.24
BT provided cables (100 pairs) (additional 100m)	connection	209.35
BT provided cables (500 pairs)	rental per annum	168.43

BT provided cables (500 pairs)	connection	2191.83
BT provided cables (500 pairs) (additional 100m)	rental per annum	131.98
BT provided cables (500 pairs) (additional 100m)	connection	209.35
BT provided cables (additional 100 pairs)	rental per annum	89.60
BT provided cables (additional 100 pairs)	connection	422.28
Operator provided cables (100 pairs)	rental per annum	24.68
Operator provided cables (100 pairs)	connection	1188.02
Operator provided cables (500 pairs)	rental per annum	27.44
Operator provided cables (500 pairs)	connection	1689.03
Operator provided (additional 100 pairs)	rental per annum	13.18
Operator provided (additional 100 pairs)	connection	406.18
Power		
Essential system supply	rental per annum	145.28
Non-essential system supply	rental per annum	11.69
AC final distribution	rental per annum	311.02

2. The terms used in Table 1 are to be understood by reference to Section B6, Part 6.03 of BT's Carrier Price List (Issue Number 2.9, 16 November 2004).
3. For the purposes of interpreting this Direction, the following definitions shall apply:

"Act" means the Communications Act 2003;

"BT" 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;

"Dominant Provider" means BT;

"External Tie Cable" means a link that connects a Metallic Path Facility to the electronic communications network of a Third Party at a location outside the MDF Site;

"Internal Tie Cable" means a link, the whole of which is contained within an MDF Site, that connects a Metallic Path Facility to the electronic communications network of a Third Party;

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

"Metallic Path Facilities" or "MPF" means a circuit comprising a pair of twisted metal wires from an end user premises to a main distribution frame that employs electric, magnetic, electro-magnetic, electro-chemical or electro-mechanical energy to convey Signals when connected to an Electronic Communications Network;

"Ofcom" means the Office of Communications;

"Shared Access" means access to the non-voice band frequency of Metallic Path Facilities;

“Specified Local Loop Unbundling Services” means:

- (a) Metallic Path Facilities;
- (b) Shared Access
- (c) External Tie Cables;
- (d) Internal Tie Cables;
- (e) power

“Third Party” means a person providing a public electronic communications service or a person providing a public electronic communications network;

4. Except where otherwise defined or in so far as the context otherwise requires, any word or expression shall have the same meaning as it has in the Act.
5. The Interpretation Act 1978 shall apply as if this Direction were an Act of Parliament.
6. Headings and titles shall be disregarded.
7. This Direction shall take effect on 1 January 2005.

Andrew Heaney

Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

SCHEDULE 2

DIRECTION: NETWORK COMPONENTS

Direction under Section 49 of the Act and SMP Condition FA10.2 imposed on BT as a result of the market power determination made by Ofcom that BT has significant market power in the market for wholesale local access in the UK excluding the Hull Area.

WHEREAS:

- A. On 16 December 2004, in accordance with Section 79(4) of the Act, Ofcom published a Notification identifying the wholesale local access market in the UK excluding the Hull Area and making a market power determination that BT has significant market power in respect of that market;
- B. On 16 December 2004, in accordance with Section 48(1) of the Act, Ofcom published a Notification setting certain SMP Conditions on BT to take effect on 16 December 2004, including SMP Condition FA10;
- C. For the purposes of the SMP Conditions referred to in (B) above, "Network Components" are defined to mean the network components specified in any direction given by Ofcom from time to time;
- D. SMP Condition FA10.2 includes, in accordance with Section 45(10) of the Act, the ability for Ofcom to make such directions as it considers appropriate from time to time in relation to the BT's obligations under Condition FA10;
- E. This Direction relates to BT's obligations under SMP Conditions FA10 in that it specifies the network components which apply for the purposes of that condition;
- F. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, in accordance with Section 49(2) of the Act, Ofcom is satisfied that this Direction is:
 - (a) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
 - (b) not such as to discriminate unduly against particular persons or against a particular description of persons;
 - (c) proportionate to what it is intended to achieve; and
 - (d) in relation to what it is intended to achieve, transparent;
- G. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, Ofcom is satisfied that it is acting in accordance with the relevant duties set out in Sections 3 and 4 of the Act in giving this Direction;
- H. On 26 August 2004, Ofcom published a Notification of a proposal to give this Direction in accordance with Section 49(4) of the Act and invited representations about the proposed Direction by 8 October 2004;

- I. In accordance with Section 50 of the Act, a copy of the Notification was sent to the Secretary of State, the European Commission and the regulatory authorities of every other EU Member State;
- J. Ofcom has considered every representation about the proposed Direction duly made to it;

NOW, THEREFORE, PURSUANT TO CONDITION FA10.2, OFCOM HEREBY DIRECTS THAT-

1. The network components which apply for the time being for the purposes of SMP Condition FA10 are those specified at Annex A to this Direction.

2. In this Direction:

“Act” means the Communications Act 2003;

“BT” 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;

“Dominant 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; and

“Ofcom” means the Office of Communications.

3. Except where otherwise defined or in so far as the context otherwise requires, any word or expression shall have the same meaning as it has in the Act.
4. The Interpretation Act 1978 shall apply as if this Direction were an Act of Parliament.
5. Headings and titles shall be disregarded.
6. This Direction shall take effect on the date it is published.

Andrew Heaney
Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

Annex A

List of Network Components

1. Local exchange concentrator
2. Local exchange call set up
3. Local exchange call duration
4. Main exchange call set up
5. Main exchange call duration
6. Remote-local transmission link
7. Remote-local transmission length
8. Local-tandem transmission link
9. Local-tandem transmission length
10. Inter-tandem transmission link
11. Inter-tandem transmission length
12. Product management, policy & planning for narrowband call services
13. National operator assistance
14. International operator assistance
15. Outpayments: geographic calls
16. Outpayments: non geographic calls
17. Outpayments: calls to mobile
18. Outpayments: international
19. Outpayments: other
20. International network
21. Copper access lines
22. Fibre access lines
23. Network terminating equipment (not elsewhere identified) for copper lines
24. CWSS network terminating equipment & serving exchange equipment
25. DWSS network terminating equipment & serving exchange equipment
26. PDH multiplexors at third party site
27. SDH multiplexors at third party site
28. SDH (MSH) multiplexors at third party site
29. PDH multiplexors
30. SDH mutliplexors
31. SDH cross connection/grooming equipment
32. Tributary card for SDH network by size
33. SDH (MSH) mutliplexors
34. SDH (MSH) cross connection/grooming equipment
35. Tributary card for SDH (MSH) network by size
36. Transmission links over fibre
37. Transmission links over radio
38. In-building links
39. ATM switches
40. Third party facing ATM tributary cards by size
41. Network facing ATM tributary cards by size
42. Signalling links
43. Network research and development
44. Guarantee schemes
45. Infrastructure returns
46. PSTN (analogue) specific
47. Passive optical network
48. ISDN 2 specific
49. ISDN 30 specific
50. Carrier Pre Selection System Set-Up
51. Carrier Pre Selection Operator Set-Up

52. Carrier Pre Selection Customer Set-Up
53. Carrier Pre Selection in life management
54. IN platform
55. Copper loop line information & testing
56. Copper cabling within exchange buildings
57. Copper cabling from within exchange buildings to outside
58. Operational buildings– electricity
59. Operational buildings - space
60. Operational buildings - other
61. Operational buildings – modifications (including for co-location)
62. Bespoke network build - copper
63. Bespoke network rearrangement - copper
64. Product management, policy & planning for narrowband access services
65. Private circuit specific
66. Product management, policy & planning for partial private circuits
67. Alternative interface symmetric broadband origination specific
68. xDSL specific
69. Product management, policy & planning for xDSL interconnect services
70. Wholesale bad debts

SCHEDULE 3

DIRECTION: TRANSPARENCY

Direction under Section 49 of the Act and SMP Condition FA10.2 imposed on BT as a result of the market power determination made by Ofcom that BT has significant market power in the market for wholesale local access in the UK excluding the Hull Area.

WHEREAS:

- A. On 16 December 2004, in accordance with Section 79(4) of the Act, Ofcom published a Notification identifying the wholesale local access market in the UK excluding the Hull Area and making a market power determination that BT has significant market power in respect of that market;
- B. On 16 December 2004, in accordance with Section 48(1) of the Act, Ofcom published a Notification setting certain SMP Conditions on BT to take effect on 16 December 2004, including SMP Condition FA10;
- C. In complying with SMP Condition FA10, BT is required to prepare and maintain various documentation, including accounting records, Accounting Documents and Regulatory Financial Statements;
- D. SMP Condition FA10.2 includes, in accordance with Section 45(10) of the Act, the ability for Ofcom to make such directions as it considers appropriate from time to time in relation to the BT's obligations under Condition FA10;
- E. This Direction relates to BT's obligations under SMP Condition FA10 in that it specifies the level of transparency required to be met by the Dominant Provider in preparing and maintaining the various documents required by that condition;
- F. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, in accordance with Section 49(2) of the Act, Ofcom is satisfied that this Direction is:
 - (a) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
 - (b) not such as to discriminate unduly against particular persons or against a particular description of persons;
 - (c) proportionate to what it is intended to achieve; and
 - (d) in relation to what it is intended to achieve, transparent;
- G. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, Ofcom is satisfied that it is acting in accordance with the relevant duties set out in Sections 3 and 4 of the Act in giving this Direction;
- H. On 26 August 2004, Ofcom published a Notification of a proposal to give this Direction in accordance with Section 49(4) of the Act and invited representations about the proposed Direction by 8 October 2004;

- I. In accordance with Section 50 of the Act, a copy of the Notification was sent to the Secretary of State, the European Commission and the regulatory authorities of every other EU Member State;
- J. Ofcom has considered every representation about the proposed Direction duly made to it;

NOW, THEREFORE, PURSUANT TO CONDITION FA10.2, OFCOM HEREBY DIRECTS THAT:

1. The Dominant Provider shall ensure that any data, information, description, material or explanatory document prepared under SMP Condition FA10 in respect of accounting and other methods used in the preparation of the accounting records and Regulatory Financial Statements shall be sufficiently transparent and prepared such that a suitably informed reader can gain a clear understanding of such data, information, description, material or explanatory document, and, if necessary, the overall structure of the Dominant Provider's financial and information systems from which regulatory accounting data is derived and in particular the sequence of the processing and 'cascade' effect of the intermediate cost centres; gain a detailed understanding of all the material, methodologies and drivers (e.g. systems, Processes and procedures) applied in the preparation of regulatory accounting data; and make their own judgement as to the reasonableness of these methodologies and driver data and any changes to them.

2. In this Direction:

"Accounting Documents" shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

"Act" means the Communications Act 2003;

"BT" 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;

"Dominant 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;

"Ofcom" means the Office of Communications;

"Process" shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above; and

"Regulatory Financial Statement" shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above.

3. Except where otherwise defined or in so far as the context otherwise requires, any word or expression shall have the same meaning as it has in the Act.
4. The Interpretation Act 1978 shall apply as if this Direction were an Act of Parliament.

5. Headings and titles shall be disregarded.
6. This Direction shall take effect on the date it is published.

Andrew Heaney
Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

SCHEDULE 4

DIRECTION: PREPARATION, AUDIT, DELIVERY AND PUBLICATION OF REGULATORY FINANCIAL STATEMENTS

Direction under Section 49 of the Act and SMP Condition FA10.2 imposed on BT as a result of the market power determination made by Ofcom that BT has significant market power in the market for wholesale local access in the UK excluding the Hull Area.

WHEREAS:

- A. On 16 December 2004, in accordance with Section 79(4) of the Act, Ofcom published a Notification identifying the wholesale local access market in the UK excluding the Hull Area and making a market power determination that BT has significant market power in respect of that market;
- B. On 16 December 2004, in accordance with Section 48(1) of the Act, Ofcom published a Notification setting certain SMP Conditions on BT to take effect on 16 December 2004, including SMP Condition FA10;
- C. In complying with SMP Condition FA10, and in particular SMP Condition FA10.5, BT is required to
 - a. prepare;
 - b. secure and audit opinion in respect of;
 - c. deliver to Ofcom (with the corresponding audit opinion); and
 - d. publish (with the corresponding audit opinion)

the Regulatory Financial Statements as directed by Ofcom from time to time;

- D. SMP Condition FA10.2 includes, in accordance with Section 45(10) of the Act, the ability for Ofcom to make such directions as it considers appropriate from time to time in relation to the BT's obligations under Condition FA10;
- E. This Direction relates to BT's obligations under SMP Condition FA10 in that it sets out the Regulatory Financial Statements which are required to be prepared, audited (including the level of audit), delivered to Ofcom and/or published by BT under SMP Condition FA10.5;
- F. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, in accordance with Section 49(2) of the Act, Ofcom is satisfied that this Direction is:
 - (a) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
 - (b) not such as to discriminate unduly against particular persons or against a particular description of persons;
 - (c) proportionate to what it is intended to achieve; and
 - (d) in relation to what it is intended to achieve, transparent;

- G. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, Ofcom is satisfied that it is acting in accordance with the relevant duties set out in Sections 3 and 4 of the Act in giving this Direction;
- H. On 26 August 2004, Ofcom published a Notification of a proposal to give this Direction in accordance with Section 49(4) of the Act and invited representations about the proposed Direction by 8 October 2004;
- I. In accordance with Section 50 of the Act, a copy of the Notification was sent to the Secretary of State, the European Commission and the regulatory authorities of every other EU Member State;
- J. Ofcom has considered every representation about the proposed Direction duly made to it;

NOW, THEREFORE, PURSUANT TO CONDITION FA10.2, OFCOM HEREBY DIRECTS THAT:

1. The Dominant Provider shall, for the purposes of condition FA10.5 and as appropriate, prepare, secure an appropriate audit opinion in respect of, deliver to Ofcom and publish the Regulatory Financial Statements in accordance with Annexes A and B to this Direction.
2. In this Direction:
 - “Act” means the Communications Act 2003;
 - “BT” 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;
 - “Dominant 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;
 - “Ofcom” means the Office of Communications; and
 - “Regulatory Financial Statement” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above.
3. Except where otherwise defined or in so far as the context otherwise requires, any word or expression shall have the same meaning as it has in the Act.
4. The Interpretation Act 1978 shall apply as if this Direction were an Act of Parliament.
5. Headings and titles shall be disregarded.
6. This Direction shall take effect on the date it is published.

Andrew Heaney
Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

Annex A

Wholesale Cost Accounting Financial Statements

For the purposes of this annex the following abbreviations are used, the scope of these statements is set out in the matrix of obligations that follows; references to annexes are to the Direction made by Ofcom on 16 December 2004 under SMP Condition FA10.2 relating to the form and content of the Regulatory Financial Statements. In the table below, X means that the financial statement set out at the head of the column is required for the market or service on that row.

Please note, the separation of the tables into Parts A to F is purely for presentational purposes.

- CCPS = 'current cost primary statements', current cost profit and loss statement (CC P&L) and statement of current cost mean capital employed (CC MCE), as set out in Annexes 13 & 14 in relation to wholesale services, Annexes 11 & 12 in relation to wholesale segments (when designated), Annexes 9 & 10 in relation to individual wholesale markets;
- RTW = 'reconciliation to wholesale', reconciliation of CC P&L and CC MCE to wholesale level - consolidation across group of markets covered by review (as set out in Annexes 7 & 8 for wholesale markets), followed by consolidation of these consolidations, to give consolidated CC P&L and CC MCE for wholesale markets subject to cost accounting (as set out in Annexes 5 & 6);
- RTSA = 'reconciliation to statutory accounts', reconciliation of consolidated CC P&L and CC MCE for wholesale markets subject to cost accounting to the profit and loss account and balance sheet of the operator shown in their statutory financial statements (as set out in annexes 27 & 28, supported by annexes 29, 30, 31 & 32);
- SoCC Ext = statement of costs and charges for wholesale service supplied in the market, other than those which are only Internal Wholesale Services (as set out in annex 34);
- SoCC Int = statement of costs and charges for wholesale service supplied in the market, which are only Internal Wholesale Services (as set out in annex 35);
- SoAC FA = statement of activity costs on a current fully allocated cost basis for the market (as set out in Annexes 38), supported by consolidated statement of activity costs on a current fully allocated cost basis (as set out in Annexes 37),
- NCR FA = attribution of activity costs on a current fully allocated cost basis for the market (as set out in annex 40), supported by consolidated attribution of activity costs on a current fully allocated cost basis (as set out in annex 39);
- SoAC IC = consolidated statement of activity costs on a incremental and standalone cost basis (as set out in Annex 41);
- RFR – regulatory financial review, as set out in annex 2 [NB - no audit opinion is required for the RFR];
- SDR – statement of responsibility, as set out in annex 3 [NB - no audit opinion is required for the SDR];
- FPIA – Audit Opinion required for statements, for inclusion in audit report as set out in annex 4;
- PPIA – Audit opinion required for statements, for inclusion in audit report as set out in annex 4;
- Notes – notes to the financial statements, as set out in annex 23;

- RMP – retail markets purchase statement, as set out in annex 26;
- SPS – summary, for reconciliation purposes, of profitability by wholesale service (as set out in annex 36) [NB - the SPS should not be published];
- AFI (a) – cost category analysis AI-1 and summarised activity analysis AI-3 (as set out in annex 42);
- AFI (b) – cost category analysis AI-4 and summarised activity analysis AI-2 (as set out in annex 42);
- AFI (c) – analysis of depreciation charge and CCA adjustments AI-5 and CCA fixed asset movement statement AI – 6 (as set out in annex 42);
- AFI (d) – operator assistance combinatorial tests AI-7 (as set out in annex 42);
- AFI (e) – mean capital employed and summarised activity analysis for all network components AI – 8 and network activity analysis of mean capital employed for all network components AI –10 (as set out in annex 42);
- AFI (f) – analysis of outpayments AI – 9 (as set out in annex 42);
- AFI (g) – revenue analysis by tariff option AI-11 and revenue analysis by customer option AI-12 (as set out in annex 42);
- AFI (h) – indices applied for CCA revaluation AI-13 (as set out in annex 42);
- AFI (i) – assets valuation and useful economic life analysis AI-14 (as set out in annex 42);
- AFI (j) – marketing expenditure analysis AI-15 (as set out in annex 42);
- AFI (k) – operating cost and mean capital employed by plant group AI-16 (as set out in annex 42);
- AFI (l) – fixed fee revenues by tariff AFI 17 (as set out in annex 42);
- AFI (m) – analysis of asset transfers AI-18 (as set out in annex 42);
- AFI (n) – CPS set up costs AI-19 (as set out in annex 42).

Part A

Review of the wholesale local access market

	Financial statements					Audit		Published
	CCPS	RTW	RTSA	SoCC Ext	SoCC Int	FPIA	PPIA	
Wholesale market and illustrative services								
Wholesale local access market	X	X	X			X		X
- wholesale service A	X			X			X	
- wholesale service B etc	X				X		X	

Part B

Review of the wholesale local access market

	Financial statements					Audit		Published
	SoAC FA	NCR FA	SOAC IC	RFR	SDR	FPIA	PPIA	
Wholesale market and illustrative services								
Wholesale local access market	X	X	X	X	X	X		X
- wholesale service A					X		X	
- wholesale service B ...					X		X	

Part C

Review of the wholesale local access market

	Financial statements					Audit		Published
	Notes	RMP	SPS			FPIA	PPIA	
Wholesale market and illustrative services								
Wholesale local access market	X		X				X	X
- wholesale service A	X						X	
- wholesale service B ...	X						X	

Part D

Review of the wholesale local access market

	Financial statements					Audit		Published
	AFI (a)	AFI (b)	AFI (c)	AFI (d)	AFI (e)	FPIA	PPIA	
Wholesale market and illustrative services								
Wholesale local access market								
- wholesale service A	X	X	X	X	X		X	
- wholesale service B ...	X	X	X	X	X		X	

Part E

Review of the wholesale local access market

	Financial statements					Audit		Published
	AFI (f)	AFI (g)	AFI (h)	AFI (i)	AFI (j)	FPIA	PPIA	
Wholesale market and illustrative services								
Wholesale local access market			X	X			X	
- wholesale service A								
- wholesale service B ...								

Part F
Review of the wholesale local access market

	Financial statements					Audit		Published
	AFI (k)	AFI (l)	AFI (m)	AFI (n)		FPIA	PPIA	
Wholesale market and illustrative services								
Wholesale local access market	X	X	X				X	
- wholesale service A	X						X	
- wholesale service B ...	X						X	

Annex B

Accounting Separation Financial Statements

For the purposes of this annex the following abbreviations are used, the scope of these statements is set out in the matrix of obligations that follows; references to annexes are to the annexes to the Direction made by Ofcom on 16 December 2004 under SMP Condition FA10.2 relating to the form and content of the Regulatory Financial Statements. In the table below, X means that the financial statement set out at the head of the column is required for the market or service on that row.

Please note, the separation of the tables into Parts A to B is purely for presentational purposes.

- TS - turnover statements: sales of External Wholesale Services (as set out in annex 24) and sales of Internal Wholesale Services (as set out in annex 25);
- SOS – notes to the financial statements (as set out in annex 23) in relation to sufficiency of separation, in particular assurance that activities to which accounting separation applies have been sufficiently separated from each other and from activities to which separation does not apply;
- IMT – Inter-market turnover, reconciliation of the source and destination of inter market turnover, to verify that transfer charges are self cancelling overall (as set out in annex 33);
- RFR – regulatory financial review, as set out in annex 2 [NB - no audit opinion is required for the RFR];
- SDR – statement of responsibility, as set out in annex 3 [NB - no audit opinion is required for the SDR];
- FPIA – Audit Opinion required for required statements, for inclusion in audit report as set out in annex 4;
- PPIA – Audit opinion required for required statements, for inclusion in audit report as set out in annex 4;
- CCPS = ‘current cost primary statements’, to demonstrate sufficiency of separation where CCPS not required for cost accounting purposes – current cost profit and loss statement and statement of current cost mean capital employed, as set out in Annexes 13 & 14 in relation to wholesale services, Annexes 11 & 12 in relation to wholesale segments (when designated), Annexes 9 & 10 in relation to individual wholesale markets;
- RTW = ‘reconciliation to wholesale’, reconciliation of CC P&L and CC MCE to wholesale level, to demonstrate sufficiency of separation where for cost accounting purposes RTW not required – consolidation across group of markets covered by review (as set out in Annexes 7 & 8 for wholesale markets), followed by consolidation of these consolidations, to give consolidated CC P&L and CC MCE for wholesale markets subject to accounting separation (as set out in annex 5 & 6);
- RTSA = ‘reconciliation to statutory accounts’, reconciliation of consolidated CC P&L and CC MCE for wholesale markets subject to accounting separation to the profit and loss account and balance sheet of the operator shown in their statutory financial statements (as set out in annexes 27 & 28, supported by annexes 29, 30, 31 & 32), to demonstrate sufficiency of separation where RTSA not already required for cost accounting purposes.

Part A**Review of the wholesale local access market**

	Financial statements			Audit		Published
	TS	SOS	IMT	FPIA	PPIA	
Wholesale market and illustrative services						
Wholesale local access market	X	X	X	X		X
- wholesale service A		X			X	
- wholesale service B ...		X			X	

Part B**Review of the wholesale local access market**

	Financial statements			Audit		Published
	RFR	SDR	CCPS, RTW & RTSA	FPIA	PPIA	
Wholesale market and illustrative services						
Wholesale local access market	X	X	X	X		X
- wholesale service A		X			X	
- wholesale service B ...		X			X	

SCHEDULE 5

DIRECTION: FORM AND CONTENT OF REGULATORY FINANCIAL STATEMENTS

Direction under Section 49 of the Act and SMP Condition FA10.2 imposed on BT as a result of the market power determination made by Ofcom that BT has significant market power in the market for wholesale local access in the UK excluding the Hull Area.

WHEREAS:

- A. On 16 December 2004, in accordance with Section 79(4) of the Act, Ofcom published a Notification identifying the wholesale local access market in the UK excluding the Hull Area and making a market power determination that BT has significant market power in respect of that market;
- B. On 16 December 2004, in accordance with Section 48(1) of the Act, Ofcom published a Notification setting certain SMP Conditions on BT to take effect on 16 December 2004, including SMP Condition FA10;
- C. In complying with SMP Condition FA10, and in particular SMP Condition FA10.5, BT is required to prepare such Regulatory Financial Statements as directed from Ofcom from time to time;
- D. SMP Condition FA10.2 includes, in accordance with Section 45(10) of the Act, the ability for Ofcom to make such directions as it considers appropriate from time to time in relation to the BT's obligations under Condition FA10;
- E. On 16 December 2004, Ofcom made a direction under SMP Condition FA10.2 specifying requirements for the preparation of the Regulatory Financial Statements in respect of wholesale cost accounting, accounting separation and retail cost accounting;
- F. This Direction relates to BT's obligations under SMP Condition FA10 in that it sets out the form and content to be applied by BT in preparing certain Regulatory Financial Statements required by virtue of SMP Condition FA10.5 and the Direction referred to in (E) above;
- G. BT is entitled to depart from the form and content set out in this Direction in certain circumstances in accordance with SMP Conditions FA10.7 and FA10.21;
- H. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, in accordance with Section 49(2) of the Act, Ofcom is satisfied that this Direction is:
 - (a) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
 - (b) not such as to discriminate unduly against particular persons or against a particular description of persons;
 - (c) proportionate to what it is intended to achieve; and
 - (d) in relation to what it is intended to achieve, transparent;

- I. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, Ofcom is satisfied that it is acting in accordance with the relevant duties set out in Sections 3 and 4 of the Act in giving this Direction;
- J. On 26 August 2004, Ofcom published a Notification of a proposal to give this Direction in accordance with Section 49(4) of the Act and invited representations about the proposed Direction by 8 October 2004;
- K. In accordance with Section 50 of the Act, a copy of the Notification was sent to the Secretary of State, the European Commission and the regulatory authorities of every other EU Member State;
- L. Ofcom has considered every representation about the proposed Direction duly made to it;

NOW, THEREFORE, PURSUANT TO CONDITION FA10.2, OFCOM HEREBY DIRECTS THAT:

- 1. Except where the Dominant Provider is entitled to amend the form and content of the Regulatory Financial Statements in accordance with SMP Conditions FA10.7 and FA10.21, the Dominant Provider shall ensure that the Regulatory Financial Statements required by condition FA10.5 and the Direction referred to in recital (E) above shall be prepared, as appropriate, as to form and content in the manner set out in the Annexes to this Direction.

- 2. In this Direction:

“Act” means the Communications Act 2003;

“BT” 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;

“Dominant 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;

“Ofcom” means the Office of Communications; and

“Regulatory Financial Statement” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above.

- 3. Except where otherwise defined or in so far as the context otherwise requires, any word or expression shall have the same meaning as it has in the Act.
- 4. The Interpretation Act 1978 shall apply as if this Direction were an Act of Parliament.
- 5. Headings and titles shall be disregarded.
- 6. This Direction shall take effect on the date it is published.

Andrew Heaney
Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

Annexes to Direction

Of the 42 annexes to this Direction (see below for an index to these form and content annexes), 41 are contained in a Microsoft Excel file. Therefore, they are not published here, but can be obtained by emailing bill.fell@ofcom.org.uk. Annex 42 can be found below following the index to the annexes.

Index of form and content annexes for the Dominant Provider

- Annex 1 – Statement by Ofcom
- Annex 2 – Regulatory financial review
- Annex 3 – Statement of responsibility
- Annex 4 – Report of the Regulatory Auditors
- Annex 5 – Wholesale Markets Consolidation Profit and Loss (P&L) Statement
- Annex 6 – Wholesale Markets Consolidation Mean Capital Employed (MCE) Statement
- Annex 7 – Wholesale Summary narrowband P&L statement
- Annex 8 – Wholesale Summary narrowband MCE statement
- Annex 9 – Wholesale market P&L loss statement
- Annex 10 – Wholesale market MCE statement
- Annex 11 – Wholesale segment P&L statement
- Annex 12 – Wholesale segment MCE statement
- Annex 13 – Wholesale service P&L statement
- Annex 14 – Wholesale service MCE statement
- Annex 15 – Retail Markets Consolidation P&L Statement
- Annex 16 – Retail Markets Consolidation MCE Statement
- Annex 17 – Retail summary narrowband P&L statement
- Annex 18 – Retail summary narrowband MCE statement
- Annex 19 – Retail market P&L loss statement
- Annex 20 – Retail market MCE statement
- Annex 21 – Retail product group P&L statement
- Annex 22 – Retail product group MCE statement
- Annex 23 – Notes to financial statements
- Annex 24 – Wholesale sales by market statement, external sales
- Annex 25 – Wholesale sales by market statement, internal sales
- Annex 26 – Retail markets purchase statement
- Annex 27 – Reconciliation statement, P&L
- Annex 28 – Reconciliation statement, MCE
- Annex 29 – Wholesale residual activities statement, P&L
- Annex 30 – Wholesale residual activities statement, MCE
- Annex 31 – Retail residual activities statement, P&L
- Annex 32 – Retail residual activities statement, MCE
- Annex 33 – Inter-market turnover (reconciliation)
- Annex 34 – Statements of costs and charges for internal and external wholesale services
- Annex 35 – Statements of costs and charges for internal only wholesale services
- Annex 36 – Consolidated profitability and MCE statement by wholesale service
- Annex 37 – Consolidated statement of costs on a current cost basis, network activity statement
- Annex 38 – Market statement of costs on a current cost basis, network activity statement
- Annex 39 – Consolidated network services reconciliation statement
- Annex 40 – Market network services reconciliation statement
- Annex 41 – Network component statement on incremental cost basis (reconciliation)
- Annex 42 – Additional information by way of notes

Annex 31

Additional Financial Information	Description	Purpose (AS, CA or Reconciliation)
Cost category (as used within regulatory LRIC model) analysis for network components, increments and relevant layers of common cost (LRIC basis)	<ul style="list-style-type: none"> • to ensure the LRIC model reconciles to the Dominant Provider group's total cost and asset & liability base • review the outputs of the Dominant Provider's LRIC model for the whole the Dominant Provider group by cost category and components, increments and layers of common costs • identify all relevant layers of common costs separately within the Dominant Provider group • enable trend analysis of this breakdown to be undertaken • enable assessment of cost-volume relationships • provide input into network price control reviews 	CA & R
Summarised activity analysis of components for network activities, increments and the relevant layers of common cost (LRIC basis)	<ul style="list-style-type: none"> • review the outputs of the Dominant Provider's LRIC model by activity analysis for network components, increments and the layers of common costs • identify all relevant layers of common costs separately for network activities • enable trend analysis of this breakdown to be undertaken • provide input into network price control reviews • ensure LRIC model reconciles to the total cost and asset & liability base for the Dominant Provider's network activities 	CA & R
Cost category (as used within regulatory LRIC model) analysis for network components and increments	<ul style="list-style-type: none"> • similar to AI-1 but on a fully allocated cost basis 	CA & R

Additional Financial Information	Description	Purpose (AS, CA or Reconciliation)
Summarised activity analysis for network components and increments	similar to AI-2 but on a fully allocated cost basis	CA & R
<p>Analysis by asset category and network activities, of the depreciation charge for the year and impact of CCA valuation adjustments on costs for the year: - e.g. HCA depreciation CCA supplementary depreciation Holding gain Other CCA adjustments</p>	<ul style="list-style-type: none"> • impact on profit and loss cost base of the application of CCA methodologies • enable trend analysis of this breakdown to be undertaken • provides sub-analysis (for the cost/gain line items left) of the asset movement statement in relation to network components • provide input into network price control reviews 	CA & R
<p>CCA fixed asset movement statement a) gross replacement costs brought forward, additions/disposals/transfers, holdings gains/(loss), gross replacement costs carried forward and b) gross depreciation brought forward, HCA depreciation charge, supplementary CCA depreciation, disposals/transfers/other movements, holding gains/(loss), gross depreciation carried forward) by asset category for the Dominant Provider Group plus reconciliation to HCA fixed assets movement statement in the group statutory accounts</p>	<ul style="list-style-type: none"> • review the breakdown of asset costs between principal asset categories and how such CCA asset values have moved in the year • enable trend analysis of CCA asset values to be undertaken • provide input into network price control reviews 	CA & R

Additional Financial Information	Description	Purpose (AS, CA or Reconciliation)
Operator assistance combinatorial test (i.e. costs and revenues for 5 regions of the world) (LRIC basis)	<ul style="list-style-type: none"> • enable the testing of whether national and international operator assistance transfer charges cover the LRIC costs plus related common costs of providing these services 	CA
Total mean capital employed and detailed activity analysis for all network components	<ul style="list-style-type: none"> • review network component costs • enable trend analysis of these breakdowns to be undertaken • provide input into price control reviews • assist in dealing with investigations • ensure summarised activity analysis presented elsewhere reconciles to the Dominant Provider's network activities cost base 	CA
Analysis by type of product segment and by type of OLO of costs, mean capital employed and transfer charges to disaggregated activities (and associated volumes) in relation to outpayments to other communications providers (OCPs)	<ul style="list-style-type: none"> • review how outpayments are accounted for • review fast growing segment of wholesale call market • review the impact of outpayments on the Dominant Provider's network cost base, for example, for different call types • enable trend analysis of outpayment costs and volume breakdowns to be undertaken • assist in dealing with investigations 	CA & R
Detailed Network activity analysis of mean capital employed for all network components	<ul style="list-style-type: none"> • enable trend analysis of these breakdowns to be undertaken • ensure summarised activity analysis reconciles to the Dominant Provider's network activity mean capital employed 	CA & R

Additional Financial Information	Description	Purpose (AS, CA or Reconciliation)
Gross call revenues, discounts & option fees by tariff option for each segment containing call revenues	<ul style="list-style-type: none"> • provide a reconciliation to revenues figures appearing in the CCA Financial Statements • review the impact of discount schemes on net telephony revenues, including inclusive call allowances and accounting issues arising therefrom • enable trend analysis of discounts to be undertaken • provide input into retail price control reviews • provide input into NTS discount rate determinations • assist in dealing with investigations 	CA
Gross revenues, discounts & option fees by customer option for each segment in respect of non-call revenues where discount scheme(s) apply	<ul style="list-style-type: none"> • as per AI-18 but in respect of services other than telephony (e.g. leased lines and other data services) 	CA
Graphs over time of the various raw indices, index weightings & composite indices used by the Dominant Provider to revalue assets onto a current cost basis	<ul style="list-style-type: none"> • evaluate the price trends for composite elements of the Dominant Provider's asset revaluation indices • evaluate the weightings within individual asset revaluation indices • evaluate the trend of individual asset revaluation indices • provide input into price control reviews and determinations 	CA

Additional Financial Information	Description	Purpose (AS, CA or Reconciliation)
<p>Estimated economic useful lives, valuation and depreciation basis, survey used for valuation or index used to revalue , historical cost accounting (HCA) & current cost accounting (CCA) depreciation, gross book values (GBV) by year of acquisition, gross replacement costs (GRC) & net replacement costs (NRC) across asset categories</p>	<ul style="list-style-type: none"> • review the nature and relative distribution of the Dominant Provider’s asset base • evaluate the Dominant Provider’s chosen asset lives for individual asset categories • review the relationship between gross HCA and CCA valuations • evaluate the appropriateness of the CCA valuation basis for each asset category • evaluate the appropriateness of the CCA depreciation methodology for each asset category • review the impact of CCA accounting on the cost base • enable trend analysis of CCA costs to be undertaken • provide input into network price control reviews 	<p>CA & R</p>
<p>Marketing expenditure analysis of the top 10 campaigns in the financial year, including advertising copy, video and audio tape of the advertising campaigns.</p>	<ul style="list-style-type: none"> • enable a review to be undertaken of the attribution to disaggregated activities of the most significant campaigns • enable trend analysis to be undertaken • assist in dealing with investigations • provide input into retail price control reviews • provide input into NTS retail uplift determinations 	<p>CA</p>

Additional Financial Information	Description	Purpose (AS, CA or Reconciliation)
Total operating costs & mean capital employed costs (and associated volumes) for each plant group and their individual exhaustion, including the disclosure of relevant usage factors, onto each network activity and/or (sub) component	<ul style="list-style-type: none"> • review the breakdown of costs to all the different components and sub-components within the Dominant Provider's network activities • enable trend analysis of this breakdown to be undertaken • provide input into network price control reviews • ensure total plant group costs reconcile to the cost base for the Dominant Provider's network activities 	CA & R
Fixed fee revenues (including line rental) by tariff package & associated network costs	<ul style="list-style-type: none"> • review how tariffs are accounted for • review recent tariff developments within telephony market • check for the possible mismatch of costs & revenues • provide input into retail price control reviews • assist in dealing with investigations 	CA
Analysis of profits/(losses) on asset transfers plus analysis of such assets transferred	<ul style="list-style-type: none"> • assess the profitability of such transactions and the implications they have for the Dominant Provider's regulatory cost base 	AS & CA
CPS set up costs and their recovery over time on a discounted cash flow basis	<ul style="list-style-type: none"> • ascertain the extent of these costs • enable Of tel to review the recovery of these costs over time • provide a reconciliation between the costs disclosed in the CCA Financial Statements and the cash flows used to determine cost recovery 	CA

SCHEDULE 6

DIRECTION: FORM OF THE 'FPIA' OPINION FOR REGULATORY FINANCIAL STATEMENTS

Direction under Section 49 of the Act and SMP Condition FA10.2 imposed on BT as a result of the market power determination made by Ofcom that BT has significant market power in the market for wholesale local access in the UK excluding the Hull Area.

WHEREAS:

- A. On 16 December 2004, in accordance with Section 79(4) of the Act, Ofcom published a Notification identifying the wholesale local access market in the UK excluding the Hull Area and making a market power determination that BT has significant market power in respect of that market;
- B. On 16 December 2004, in accordance with Section 48(1) of the Act, Ofcom published a Notification setting certain SMP Conditions on BT to take effect on 16 December 2004, including SMP Condition FA10;
- C. In complying with SMP Condition FA10, and in particular SMP Condition FA10.5, BT is required to secure the expression of an audit opinion upon the Regulatory Financial Statements as directed from Ofcom from time to time;
- D. SMP Condition FA10.2 includes, in accordance with Section 45(10) of the Act, the ability for Ofcom to make such directions as it considers appropriate from time to time in relation to the BT's obligations under Condition FA10;
- E. On 16 December 2004, Ofcom made a direction under SMP Condition FA10.2 specifying requirements for the preparation of the Regulatory Financial Statements in respect of wholesale cost accounting, accounting separation and retail cost accounting;
- F. The direction referred to in (E) above requires, in respect of the Regulatory Financial Statements, BT to secure an audit opinion of those Regulatory Financial Statements properly prepared in accordance with 'FPIA' standards;
- G. This Direction further relates to BT's obligations under SMP Condition FA10, in that it details the level of audit which must be secured by BT in obtaining an audit to FPIA standards;
- H. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, in accordance with Section 49(2) of the Act, Ofcom is satisfied that this Direction is:
 - (a) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
 - (b) not such as to discriminate unduly against particular persons or against a particular description of persons;
 - (c) proportionate to what it is intended to achieve; and
 - (d) in relation to what it is intended to achieve, transparent;

- I. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, Ofcom is satisfied that it is acting in accordance with the relevant duties set out in Sections 3 and 4 of the Act in giving this Direction;
- J. On 26 August 2004, Ofcom published a Notification of a proposal to give this Direction in accordance with Section 49(4) of the Act and invited representations about the proposed Direction by 8 October 2004;
- K. In accordance with Section 50 of the Act, a copy of the Notification was sent to the Secretary of State, the European Commission and the regulatory authorities of every other EU Member State;
- L. Ofcom has considered every representation about the proposed Direction duly made to it;

NOW, THEREFORE, PURSUANT TO CONDITION FA10.2, OFCOM HEREBY DIRECTS THAT:

- 1. Where the Dominant Provider is required by any direction of Ofcom to secure the expression of an audit opinion to FPIA standards upon any Regulatory Financial Statement, the Dominant Provider shall ensure that the Regulatory Auditor shall state whether in his opinion:
 - (a) each Regulatory Financial Statement complies with the requirements of SMP Condition FA10.5;
 - (b) each Regulatory Financial Statement fairly presents in accordance with the Primary Accounting Documents:
 - (i) in the case of the profit and loss account and profit and loss reconciliation statements, the results in the relevant Market, Disaggregated Activities and/or Accounting Separation Activities (as appropriate) for the Relevant Financial Year and Prior Year Comparatives;
 - (ii) in the case of the statement of mean capital employed and mean capital employed reconciliation statements, the mean capital employed in the relevant Market, Disaggregated Activities and/or Accounting Separation Activities (as appropriate) for the Relevant Financial Year and Prior Year Comparatives; and
 - (iii) in the case of the other statements of revenues, costs, assets, liabilities and other quantities, the revenues, costs, assets, liabilities and other quantities incurred or employed in the relevant Market, Disaggregated Activities and/or Accounting Separation Activities (as appropriate) for the Relevant Financial Year and Prior Year Comparatives;
 - (c) the Secondary Accounting Documents at the date of the audit opinion are appropriate to implement the Primary Accounting Documents.
- 2. In this Direction:
 - “Accounting Separation Activities” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

“Act” means the Communications Act 2003;

“BT” 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;

“Dominant 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;

“Disaggregated Activities” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

“Market” means the wholesale local access market in the UK excluding the Hull Area;

“Ofcom” means the Office of Communications;

“Primary Accounting Documents” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

“Prior Year Comparatives” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

“Regulatory Auditor” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

“Regulatory Financial Statement” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above; and

“Relevant Financial Year” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above.

3. Except where otherwise defined or in so far as the context otherwise requires, any word or expression shall have the same meaning as it has in the Act.
4. The Interpretation Act 1978 shall apply as if this Direction were an Act of Parliament.
5. Headings and titles shall be disregarded.
6. This Direction shall take effect on the date it is published.

Andrew Heaney
Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

SCHEDULE 7

DIRECTION: FORM OF THE 'PPIA' OPINION FOR REGULATORY FINANCIAL STATEMENTS

Direction under Section 49 of the Act and SMP Condition FA10.2 imposed on BT as a result of the market power determination made by Ofcom that BT has significant market power in the market for wholesale local access in the UK excluding the Hull Area.

WHEREAS:

- A. On 16 December 2004, in accordance with Section 79(4) of the Act, Ofcom published a Notification identifying the wholesale local access market in the UK excluding the Hull Area and making a market power determination that BT has significant market power in respect of that market;
- B. On 16 December 2004, in accordance with Section 48(1) of the Act, Ofcom published a Notification setting certain SMP Conditions on BT to take effect on 16 December 2004, including SMP Condition FA10;
- C. In complying with SMP Condition FA10, and in particular SMP Condition FA10.5, BT is required to secure the expression of an audit opinion upon the Regulatory Financial Statements as directed from Ofcom from time to time;
- D. SMP Condition FA10.2 includes, in accordance with Section 45(10) of the Act, the ability for Ofcom to make such directions as it considers appropriate from time to time in relation to the BT's obligations under Condition FA10;
- E. On 16 December 2004, Ofcom made a direction under SMP Condition FA10.2 specifying requirements for the preparation of the Regulatory Financial Statements in respect of wholesale cost accounting, accounting separation and retail cost accounting;
- F. The direction referred to in (E) above requires, in respect of the Regulatory Financial Statements, BT to secure an audit opinion of those Regulatory Financial Statements properly prepared in accordance with 'PPIA' standards;
- G. This Direction further relates to BT's obligations under SMP Condition FA10, in that it details the level of audit which must be secured by BT in obtaining an audit to PPIA standards;
- H. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, in accordance with Section 49(2) of the Act, Ofcom is satisfied that this Direction is:
 - (a) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
 - (b) not such as to discriminate unduly against particular persons or against a particular description of persons;
 - (c) proportionate to what it is intended to achieve; and
 - (d) in relation to what it is intended to achieve, transparent;

- I. For the reasons set out in Section 10 of the explanatory statement accompanying this Direction, Ofcom is satisfied that it is acting in accordance with the relevant duties set out in Sections 3 and 4 of the Act in giving this Direction;
- J. On 26 August 2004, Ofcom published a Notification of a proposal to give this Direction in accordance with Section 49(4) of the Act and invited representations about the proposed Direction by 8 October 2004;
- K. In accordance with Section 50 of the Act, a copy of the Notification was sent to the Secretary of State, the European Commission and the regulatory authorities of every other EU Member State;
- L. Ofcom has considered every representation about the proposed Direction duly made to it;

NOW, THEREFORE, PURSUANT TO CONDITION FA10.2, OFCOM HEREBY DIRECTS THAT:

1. Where the Dominant Provider is required by any direction of Ofcom to secure the expression of an audit opinion to PPIA standards upon any Regulatory Financial Statements, the Dominant Provider shall ensure that the Regulatory Auditor shall state whether in his opinion:
 - (a) each Regulatory Financial Statement complies with the requirements of condition FA10.5;
 - (b) each Regulatory Financial Statement has been properly prepared in accordance with the Accounting Documents, including the Prior Year Comparatives;
 - (c) having reviewed the Accounting Documents in forming his opinion under (b) above, anything has come to his attention that would lead him to conclude that the Accounting Documents have not been properly applied in the preparation of the relevant Regulatory Financial Statement, disclosing where practicable any adjustments he considers to be required in respect of any such matter; and
 - (d) having reviewed the Accounting Documents, nothing has come to his attention that would lead him to conclude that the Secondary Accounting Documents are unreasonable in the context of the Primary Accounting Documents.
2. In this Direction:

“Accounting Documents” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

“Act” means the Communications Act 2003;

“BT” 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;

“Dominant 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;

“Ofcom” means the Office of Communications;

“Primary Accounting Documents” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

“Prior Year Comparatives” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above;

“Regulatory Financial Statement” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above; and

“Secondary Accounting Documents” shall have the meaning ascribed to it in the SMP Conditions referred to in recital (B) above.

3. Except where otherwise defined or in so far as the context otherwise requires, any word or expression shall have the same meaning as it has in the Act.
4. The Interpretation Act 1978 shall apply as if this Direction were an Act of Parliament.
5. Headings and titles shall be disregarded.
6. This Direction shall take effect on the date it is published.

Andrew Heaney
Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

Annex 3

Condition FA8 – Process for dealing with requests for new products

A3.1 As set out in Section 6, Ofcom has imposed on BT a regulated process for requests for new Network Access. This annex sets out the detail of Condition FA8, Process for dealing with requests for new products.

A. Publication of reasonable guidelines on requesting a new product

A3.2 Conditions FA8.1 and FA8.2 oblige BT to publish the required content and form of a request for new Network Access. Ofcom considers that it is appropriate to require BT to produce reasonable guidelines on requesting new Network Access. Ofcom believes that such guidelines will contribute to ensuring that the process of providing new Network Access is efficient by ensuring that BT receives accurate product descriptions in sufficient detail and gives requesting communications providers' confidence that requests are handled in a fair and consistent manner. Ofcom considers that BT should consult with Ofcom and relevant third parties before finalising the initial version of these guidelines to ensure that the guidelines meet the reasonable needs of stakeholders. Ofcom would expect BT to make the proposed guidelines publicly available and to engage with stakeholders as appropriate to enable them to contribute to the development of the final version of the guidelines. Ofcom also considers that BT should finalise the initial guidelines within two months of the date the condition enters into force. In addition, BT shall keep these guidelines under review and consult with relevant third parties and Ofcom before making any amendments.

B. Provision of information for the purpose of making a request for a new Network Access

A3.3 Ofcom considers it appropriate to require BT, on receipt of a reasonable request, to supply sufficient technical and network information to enable third parties to construct proposed product specifications that are efficient and meet their reasonable requirements (Condition FA8.3). Ofcom requires that the information should be supplied within a "reasonable timescale". If a dispute arises about timescales, the parties could refer the matter to Ofcom. If it considered it appropriate to accept such a dispute, Ofcom would consider what is reasonable on a case-by-case basis, taking into account the complexity of the information requested.

A3.4 Ofcom considers that BT should not refuse access to any such information on the basis of confidentiality, although BT may require a non-disclosure agreement. Ofcom considers that in signing confidentiality agreements BT must take into account its obligations to meet all reasonable requests for access and to provide information to requesting operators. If necessary, BT should review confidentiality agreements with its suppliers accordingly in order to ensure compliance with its obligations.

- A3.5 Section 87(4)(e) of the Act requires Ofcom to take account of, inter alia, any relevant intellectual property (“IP”) rights in considering whether it is proportionate to mandate or attach conditions to an access obligation.
- A3.6 Ofcom recognises that IP rights will protect some types of information, but where that information is essential to allow BT’s competitors to request and make use of reasonable access products, Ofcom expects BT to explore whether such information could be made available and protected with non-disclosure agreements.
- A3.7 As set out in the Access Guidelines, in the event of a dispute about the provision of information based on the existence of relevant IP rights, Ofcom will consider the identification of IP rights on a case-by-case basis.

C. Process for dealing with requests for new Network Access

- A3.8 The following is a summary of the process for dealing with requests for new Network Access:
- BT must acknowledge receipt of the request within five working days (Condition FA8.5);
 - BT must give a first written response to the request at the latest within 15 working days of its receipt (Condition FA8.6). It is envisaged that the response will not be an initial offer of terms and conditions, although nothing would preclude such a response at this stage. If the request is not adequately formulated, Ofcom would expect BT and communications providers to be able to discuss constructively how the request could be more appropriately formulated. How a request should be appropriately formulated should be covered in BT’s guidelines. If the request is refused on the basis of specified objective criteria or the need to maintain network integrity, BT shall detail its reasons for refusal. If the request is sufficiently well formulated, BT shall state either that the initial offer of terms and conditions will be prepared, or that a feasibility study will be required (and objective reasons why a feasibility study is required). BT should also at this stage confirm preparation of a timetable for the agreement of technical issues (Condition FA8.6);
 - BT may reject a request on the grounds that it is not reasonable, is not technically feasible, requires BT to provide something which is not within its power to provide, or would compromise the integrity of BT’s network. Oftel has set out in the Access Guidelines (at paragraph 2.28) the procedure to be followed to resolve disputes about a ‘reasonable request’ for Network Access. Ofcom considers that a request is unreasonable if it imposes an undue burden on BT, i.e. BT would be unable to recover its costs of providing the requested access;
 - Where there is no feasibility study, 35 working days after receipt of the request (at the latest), BT must provide an initial offer of terms and conditions and a timetable for the new Network Access and the resolution of technical issues (Condition FA8.7);
 - Where BT has said that no feasibility study is required but, due to a genuine error of fact, BT decides after 15 days that a feasibility study is reasonably required, it may inform the requesting party within 35 working days that a feasibility study is required (Condition FA8.8) and give objective reasons why the study is required. Ofcom expects that this

- condition will apply in limited circumstances only, and generally BT will decide whether a feasibility study is required within 15 working days; and
- Where a feasibility study is undertaken, at the end of 60 working days, BT must be able to respond fully to the majority of requests for new Network Access (Condition FA8.9). The condition allows this time to be extended to 85 working days, where, despite using its best endeavours, BT is unable to complete the feasibility study within 60 working days or when BT and the requesting operator agree that more time is needed. Ofcom does however acknowledge that in certain circumstances, BT might reasonably require even more time to respond fully to a request. Such circumstances might include multiple or conflicting requests from different providers, extremely complex requests covering a number of different technology areas or requests requiring wider industry consultation. The condition therefore includes provision for the overall deadline to be extended to over 85 working days, with the agreement of the requesting party or Ofcom (Condition FA8.11). Where BT wishes to extend the 60 day deadline to 85 working days (Condition FA8.10), it is for BT to show that circumstances exist which prevents it from responding to the request within 60 working days.

Annex 4

International comparisons

Introduction

- A4.1 This Annex sets out comparisons of the charges for and take-up of LLU across different EU Member States. It also places the extent of LLU in the context of the overall take-up of broadband in these Member States. It does not cover the ten new Member States which acceded to the EU on 1 May 2004.
- A4.2 International comparisons provide a useful benchmark against which to judge the development of LLU in the UK. The relationship between LLU prices and take-up observed in other countries also provides insight into the possible impact of price changes on LLU take-up in the UK. Furthermore, analysis of charges in other countries may yield cost information which could inform the identification of efficient cost levels in the UK.
- A4.3 However, it is important to recognise that charges can differ across countries for a number of reasons and these could include differences between the service levels underpinning the relevant charges or different service elements being included within the charges. This limits the inferences that the UK can draw from any simple international price or take-up comparisons.
- A4.4 It is also important to note that LLU provides just one way of delivering services which can compete with the incumbent's own offerings. Hence, any cross-country comparison of LLU prices and take-up must also take into account the impact of cable modems and wholesale DSL alternatives in delivering broadband service competition.
- A4.5 Going forward, Ofcom intends to carry out some further and more detailed international benchmarking analyses that will enable Ofcom to understand better the underlying reasons for the differences in charges for LLU services across Member States.

Comparison of LLU charges across EU Member States

- A4.6 Table A4.1 sets out rental and connection charges for both fully unbundled and shared loops in Member States, as published in the December 2004 document entitled *European Communications Regulations and Markets 2004* (the "10th Implementation Report"). This report is available on the European Commission's website at:
http://europa.eu.int/information_society/topics/ecom/all_about/implementation_enforcement/annualreports/10threport/index_en.htm
- A4.7 The table has been amended to reflect the charge ceilings set out in this statement.

Table A4.1
Charges for full and shared loops in Member States, August 2004

Country	Full loops		Shared loops	
	Connection (€)	Rental (€)	Connection (€)	Rental (€)
Austria	54.5	10.9	109.0	5.5
Belgium	57.1	11.6	57.1	1.7
Denmark	46.4	8.6	36.6	4.3
Finland	168.4	11.3	117.7	5.7
France	78.7	10.5	78.7	2.9
Germany	48.0	11.8	60.8	2.4
Greece	36.1	10.4	47.0	5.2
Ireland	121.5	16.8	123.4	9.0
Italy	37.0	8.3	44.5	2.8
Luxembourg	185.6	15.8	196.2	7.5
Netherlands	28.8	9.6	37.4	1.9
Portugal	84.1	12.0	88.2	3.0
Spain	22.4	11.4	30.1	3.0
Sweden	167.1	11.4	119.4	5.4
UK	51.2*²⁹	13.3	51.2*	1.4*

*based on an exchange rate of £1 equalling €1.47

A4.8 UK charges are now more in line with those found elsewhere in Europe and are currently positioned:

- 7th for fully unbundled connection;
- 13th for fully unbundled rental;
- 6th for shared access connection; and
- 1st for shared access rental.

Responses to the August consultation

A4.9 One respondent to the August consultation has requested that Ofcom carry out further work on relative charges for co-location and distant co-location.

²⁹ This is for a transfer and not a new provide.

Ofcom response

A4.10 The upfront connection and rental charges are just two charges that operators using LLU incur. Ofcom agrees that there are other important LLU charges and will consider undertaking further benchmarking work on them in the future.

Take-up of local loop unbundling

A4.11 Table A4.2 provides a comparison of the total number of loops that have been unbundled in individual Member States (full, shared and total). These data were set out in Annex II to the 10th Implementation Report.

Table A4.2
Numbers of unbundled and shared loops in Member States, July 2004

Country	Full loops	Shared loops	Aggregate	Penetration (% of all incumbent lines)
Austria	45,862	18	45,880	1.5%
Belgium	4,750	2,635	7,385	0.2%
Denmark	53,602	26,630	80,232	3.8%
Finland	96,600	31,600	128,200	4.7%
France	13,066	717,654	730,720	2.2%
Germany	1,627,846	1,141	1,628,987	4.3%
Greece	932	160	1,092	0.0%
Ireland	305	1,195	1,500	0.1%
Italy	697,530	158	697,688	2.6%
Luxembourg	2,376	0	2,376	1.0%
Netherlands	39,625	281,504	321,129	4.1%
Portugal	4,845	0	4,845	0.1%
Spain	40,302	2,142	42,444	0.3%
Sweden	10,972	87,795	98,767	1.8%
UK	7,466	5,949	13,415	0.0%

A4.12 It is clear that the UK is lagging behind most other Member States in terms of the number of loops unbundled. When adjusted for size, the comparisons are even starker. The UK has the lowest LLU penetration rates (measured as the percentage of all lines that could be unbundled) in the EU. However, it should

be noted that the rate of unbundling in the UK has increased over the last 6 months and there are currently around 26,000 unbundled loops in the UK.

- A4.13 A second notable feature to emerge from the unbundling data is the variation in the relative uptake of full and shared access options across the EU. In Germany and Italy, there has been a significant level of full unbundling. On the other hand, the development of unbundling in, for instance, France, the Netherlands and Sweden has been driven primarily through shared access arrangements.
- A4.14 A feature that is not apparent from this data 'snap-shot' is the dynamic of LLU take-up. In France, for example, levels of unbundling were comparable with those in the UK at the beginning of 2003. However, the French regulator (ART) required France Telecom to significantly reduce its charges for local loop unbundling and subsequently volumes increased to over 270,000 lines at January 2004 and over 1 million at present³⁰.
- A4.15 No single pattern emerges from comparison of the LLU pricing data set out in Table A4.1 with the LLU take-up data presented in Table A4.2. For example, while take-up of shared access is highest in France and the Netherlands, which have some of the lowest charges in the EU, it is also high in Sweden, where charges are relatively high. Similarly, while the high take-up of full unbundling in Italy is consistent with it having the lowest charges in the EU, take-up in Germany is significantly higher than in a range of other countries where charges are very similar.

Take-up of broadband overall

- A4.16 The data presented in Tables A4.1 and A4.2 show that the charges for LLU are relatively high in the UK and take-up is relatively low. However, it is appropriate to consider these figures in the wider broadband context. In particular, low take-up of LLU may be explained by a number of other factors including:
- broadband offered over alternative access networks;
 - use of wholesale DSL services; and
 - vigorous competition from the incumbent's own DSL services.
- A4.17 Table A4.3 recognises that broadband services can be delivered via a variety of delivery mechanisms and therefore shows the volumes for each of these in Member States.

Table A4.3
Provision of broadband services across Member States, July 2004

	LLU '000	All DSL '000	Non DSL '000	All B'band '000	B'band Take-up <i>Per capita</i>	LLU/ B'band %
Austria	45	355	350	705	8.7%	6.4%
Belgium	7	889	555	1444	14%	0.5%

³⁰ See the *Unbundling report at 1 October 2004* (<http://www.art-telecom.fr/eng/index.htm>)

Denmark	80	562	277	839	15.6%	9.5%
Finland	128	400	172	572	11%	22.4%
France	730	4490	425	4915	8.2%	14.9%
Germany	1628	5286	129	5415	6.6%	30.1%
Greece	1.1	22	3	25	0.2%	4.4%
Ireland	1.5	55	10	65	1.7%	2.3%
Italy	697	3223	296	3519	6.1%	19.8%
Luxembourg	2.4	22	3	25	5.7%	9.6%
Netherlands	321	1374	998	2372	14.7%	13.5%
Portugal	4.8	297	369	667	6.4%	0.7%
Spain	42	2086	681	2767	6.7%	1.5%
Sweden	98	685	400	1086	12.1%	9.0%
UK	13	2753	1642	4395	7.4%	0.3%

Source: *European Commission, 10th Implementation Report*

A4.18 Although take-up of LLU is extremely low in the UK, the data in Table A4.3 shows that at July 2004 the penetration of retail broadband services generally is comparable to that seen in a number of other Member States. Thus, while broadband penetration in the UK lags some way behind that in Denmark, Belgium, the Netherlands, and Sweden, it is similar to the levels observed for the other large EU Member States.

A4.19 The information in Table A4.3 highlights the variety of methods used to deliver broadband across the EU. Thus, while LLU accounts for a very substantial percentage of broadband provision in Germany and Finland, for example, its role in the UK is currently negligible, and smaller than in any other Member State. However, non-DSL broadband provision, mainly provided over cable, is significant in the UK and the Netherlands, whereas the provision of broadband services via cable in Germany is limited.

A4.20 In several countries, such as the UK, DSL competitors have to date chosen to supply broadband principally using the incumbent's wholesale DSL offerings, rather than LLU. However, in Germany there is no such wholesale DSL provision, which provides one explanation for why LLU take-up is relatively high there. It is also the case that most unbundled lines in Germany are used for voice rather than broadband applications.

A4.21 It should be noted that these data are not necessarily fully representative of the competitiveness of broadband markets across Member States. For instance, the 10th Implementation Reports also shows that BT has the lowest market share of broadband lines of all incumbents, at approximately 25%.

Annex 5

Discontinuation notice

NOTICE TO BRITISH TELECOMMUNICATIONS PLC UNDER PARAGRAPH 9 OF SCHEDULE 18 TO THE COMMUNICATIONS ACT 2003

Notice that certain continued provisions set out in the continuation notice given to British Telecommunications plc on 23 July 2003 will cease to have effect from 16 December 2004

1. The Office of Communications ('Ofcom'), in accordance with Paragraph 9(9) of Schedule 18 to the Communications Act 2003 ('the Act') hereby gives notice to British Telecommunications plc ('BT') that certain continued provisions contained in Schedule 1 to the continuation notice given to BT on 23 July 2003, which had effect from 25 July 2003, ('the Continuation Notice'), will cease to have effect from 16 December 2004 to the extent set out in Schedule 1 to this notice ('the Discontinued Provisions').
2. In giving this notice, Ofcom has, in accordance with Paragraph 9 (11) of Schedule 18 to the Act, taken all steps necessary for enabling it to decide whether or not to set a condition under Chapter 1 of Part 2 of the Act for the purpose of replacing the continued provisions and whether or not to exercise the power to set a condition under that Chapter for that purpose.
3. All directions, determinations, consents and other provisions which were continued under the Continuation Notice by virtue of Paragraph 9(8) of Schedule 18 to the Act will also cease to have effect from 16 December 2004 to the extent that they were given or made for the purposes of the Discontinued Provisions.
4. To the extent that the Continuation Notice does not cease to have effect under Paragraph 1 of this notice, the Continuation Notice shall continue to have effect until Ofcom has given a further notice to BT in accordance with Paragraph 9(9) of Schedule 18 to the Act that it shall cease to have effect.
5. The Director General of Telecommunications ('the Director') issued a consultation as to his proposals to discontinue the Discontinued Provisions on 2 October 2003 and requested comments by 9.00 a.m. on 16 October 2003. Ofcom has taken into account the comments the Director received during that consultation.
6. In this notice, except as otherwise provided or unless the context otherwise requires, words or expressions shall have the meaning assigned to them and otherwise any word or expression shall have the same meaning as it has in the Act. For the purposes of interpreting this notice, headings and titles shall be disregarded.

Andrew Heaney
Director of Broadband, Competition and Markets, Ofcom

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

16 December 2004

Schedule 1

The following continued provisions which were contained in Schedule 1 to the Continuation Notice will cease to have effect from 16 December 2004 to the extent set out below.

Condition 83 in so far as this condition relates to the wholesale local access market in the UK excluding the Hull Area ('the Market Review') and will be replaced by SMP Conditions imposed on BT by way of the Notification set out in Annex 1 of the Market Review published by Ofcom on 16 December 2004.

Annex 6

Glossary

This glossary is without prejudice to the definitions used in the notification set out in Annex 1.

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

Broadband: a service or connection which capable of supporting always-on services which provide the end-user with high data transfer speeds.

BT: British Telecommunications plc.

Cable modem: a cable modem is a device that enables a consumer to access the Internet via a cable access line

Co-location: the provision of space at a BT MDF site that enables a competing provider to locate equipment within that MDF site in order to connect to the dominant provider and purchase LLU services. For the avoidance of doubt, co-location includes co-mingling.

Co-mingling: a type of co-location where a competing provider's equipment is located in the same area as the dominant provider could or does house its own equipment, without a permanent barrier between them.

Communications provider: a person who provides an Electronic Communications Network or provides an Electronic Communications Service.

Digital: the binary coded representation of a waveform, as opposed to analogue, which is the direct representation of a waveform.

Distant location: the provision of an external tie circuit (or facilities for one to be installed) either to a street cabinet or other distant location.

DSL (Digital Subscriber Line): a family of technologies generically referred to as DSL, or xDSL, capable of transforming ordinary local loops into high-speed digital lines, capable of supporting advanced services such as fast Internet access and video-on-demand. ADSL (Asymmetric Digital Subscriber Line), HDSL (High bit rate Digital Subscriber Line) and VDSL (Very high data rate Digital Subscriber Line) are all variants of xDSL.

DSLAM (Digital Subscriber Loop Access Multiplexer): apparatus used to terminate DSL enabled local loops, which comprises a bank of DSL modems and a multiplexer which combines many local loops into one data path.

External tie cable: the provision of links that connect the local loop to the equipment of a competing provider outside a MDF site.

Hull Area: the area defined as the 'Licensed Area' in the licence granted on 30 November 1987 by the Secretary of State under section 7 of the

Telecommunications Act 1984 to Kingston upon Hull City Council and Kingston Communications (Hull) plc.

Internal tie cable: the provision of links that connect the local loop to the equipment of a competing provider within an MDF site.

IP (Internet Protocol): the packet data protocol used for routing and carriage of messages across the Internet and similar networks.

IP network: a network that uses IP; for example the Internet is a public IP network.

Kingston: Kingston Communications (Hull) PLC, communications provider which operates in the Hull Area.

KPIs: key performance indicators

Local loop: the access network connection between the customer's premises and the local serving exchange, usually comprised of two copper wires twisted together.

Local loop unbundling (LLU): a process by which a dominant provider's local loops are physically disconnected from its network and connected to competing provider's networks. This enables operators other than the incumbent to use the local loop to provide services directly to customers.

Main distribution frame (MDF)/unbundled local loop: the equipment where local loops terminate and cross connection to competing providers' equipment can be made by flexible jumpers.

Metallic Path Facilities: the provision of access to the copper wires from the customer premises to a BT MDF that covers the full available frequency range, including both narrowband and broadband channels, allowing a competing provider to provide the customer with both voice and/or data services over such copper wires.

Modem: abbreviation of modulate-demodulate, a device that converts a digital signal into analogue for transmission purposes. It also receives analogue transmissions and converts them back to digital.

Narrowband: a service or connection allowing only low data transfer speeds.

PSTN: Public Switched Telephone Network

Shared metallic path facility (SMPF)/shared access: the provision of access to the copper wires from the customer's premises to a BT MDF that allows a competing provider to provide the customer with broadband services, while the dominant provider continues to provide the customer with conventional narrowband communications.

Site access: the provision of access to BT's MDF sites in order for a competing provider to install and operate equipment within those MDF sites;

SMP: The Significant Market Power test is set out in European Directives. It is used by National Regulatory Authorities (NRAs) such as Ofcom to identify those communications providers who must meet additional obligations under the relevant Directive.