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Office of Communications (Ofcom)
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For the attention of:
Mr Ed Richards
Chief Executive Officer
Fax: +44-20 7981 3504

Dear Mr Richards,

Subject: UK/2007/0733: Wholesale Broadband Access in the UK

Comments pursuant to Article 7(3) of Directive 2002/21/EC[1]

I PROCEDURE

On 15 November 2007 the Commission registered a notification from the UK regulatory authority, the Office of Communications ("Ofcom"). It concerns the second review of the wholesale broadband access market and leads Ofcom to propose a significant change in *ex ante* regulation. Based on the definition of sub-national markets, Ofcom intends to deregulate wholesale broadband access to 65% of all UK homes and businesses.

The national consultation[2] runs in parallel with the Community consultation under Article 7 of the Framework Directive. The deadline for both consultations was originally due to expire on 7 February 2008. On 5 February 2008, Ofcom extended the deadline for the consultations until 14 February 2008.

Requests for information were sent to Ofcom on 5 December, 19 December 2007 and 15 January 2008. The replies were received on 10 December 2007, 9 January and 18 January

[1] Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), OJ L 108, 24.4.2002, p. 33.

[2] In accordance with Article 6 of the Framework Directive.

2008 respectively. In addition, a letter was received from Ofcom on 12 February 2008 regarding the competitive trend observed in certain exchanges included in its identified market 3.

Pursuant to Article 7(3) of the Framework Directive, national regulatory authorities ("NRAs") and the Commission may make comments on notified draft measures to the NRA concerned.

II DESCRIPTION OF THE DRAFT MEASURE

II.1 First-round notification

The first review of this market was previously notified to and assessed by the Commission under cases UK/2003/0032-0034. At the time, Oftel (Ofcom's predecessor) segmented the wholesale broadband access market into two distinct product markets comprising asymmetric broadband origination and conveyance in the UK (excluding the Hull area) and one product market for asymmetric broadband origination in the Hull area. On the basis of its analysis, Oftel designated British Telecom ("BT") with significant market power ("SMP") in the UK (excluding the Hull area) and Kingston Communications with SMP in the Hull area and consequently imposed a number of regulatory obligations. The Commission, in its letter, commented on the inclusion of cable-based services in the market definition based on the indirect pricing constraint exercised on DSL-based services at the retail level. It drew Oftel's attention to the fact that indirect constraints should be taken into account in the context of the SMP analysis and not at the market definition stage. However, the Commission concluded that the exclusion of cable from the product market definition would not have altered the conclusions reached by Oftel as regards the findings of SMP.

II.2 Market definition

II.2.1 Product market definition

In the present notification, Ofcom concludes that due to changes in network topologies from service-specific arrangements to more converged arrangements and due to the expected replacement of asynchronous transfer mode ("ATM") by other technologies such as Ethernet and internet protocol ("IP"), internet service providers ("ISPs") are demanding services characterised by a higher level of aggregation, as opposed to network element-based type services. As a consequence, Ofcom concludes that it is no longer appropriate to define distinct markets for broadband origination and conveyance. Therefore, Ofcom defines a single product market for wholesale asymmetric broadband access products including any backhaul as necessary to allow interconnection with other communications providers.

Ofcom also concludes that residential and business asymmetric broadband internet access services are part of the same relevant market. This conclusion is based on the observation that many providers of asymmetric broadband access products provide residential and business offerings. Furthermore, Ofcom argues that despite higher price and quality of business services compared to residential services, there is nonetheless a large overlap in the price range of business and residential services, indicating the existence of a chain of substitution between various products. Further, many of the features associated with business services are available to customers using residential services. Ofcom expects that on a forward-looking basis product development will further strengthen the chain of substitution. Regarding virtual private networks ("VPNs"), Ofcom concludes that both residential and business internet access can be used as part of a VPN, suggesting substitutability between residential and business products. Finally, Ofcom notes that for services of significantly higher specifications and quality levels demanded by large business customers, these customers are often supplied over partial private circuits or leased lines covered by the retail leased lines market. Ofcom also clarifies in its reply to the request for information of 10 December 2007 that there are some products that may arise at the boundary between the wholesale broadband access and the leased lines markets such as SDSL. Ofcom intends to address these products through its review of the leased lines market.[3]

Similar to the first round, Ofcom concludes that due to the likelihood of switching between DSL and cable solutions at the retail level, the latter would exert an indirect economic constraint on DSL-based wholesale inputs. While Ofcom also refers to the possibility, absent regulation, of cable operators providing a wholesale product, it notes that the constraining effect of cable does not depend on a perceived threat of entry at the wholesale level. According to Ofcom, the indirect effects via the retail level are sufficient to include cable in the same wholesale broadband access market as ADSL.

More precisely, based on the likelihood of substitution at the retail level and the assertion that wholesale costs constitute approximately 85% of the retail price, Ofcom concludes that if a hypothetical monopolist provider of the wholesale DSL-based input were to raise its price, ISPs would be forced to increase their retail prices, leading to sufficient numbers of consumers switching to comparable products using a different wholesale input (i.e. cable). Accordingly, there would be a sufficient constraint from end-users switching from ADSL-based broadband services to cable-based broadband services that would render a price rise of a hypothetical monopolist providing a DSL-based wholesale input unprofitable. As a matter of fact, Ofcom points to the high demand elasticity in the retail broadband market in the UK. It underlines notably that while both wholesale and retail prices have fallen since the 2003/2004 review, retail prices have fallen more sharply than wholesale prices, including BT's retail prices.[4] In its reply of 9 January 2008, Ofcom also noted that cable is facing increased competition from DSL and is responding through additional product innovations. However, Ofcom did not provide additional evidence on the actual extent of retail substitution from DSL to cable-based broadband services.[5]

Furthermore, Ofcom includes self-supply by BT as well as by Local Loop Unbundling ("LLU") operators in the market based on indirect pricing constraints. With regard to LLU, Ofcom, in addition to the indirect pricing constraint, also refers to the existence of demand from ISPs for wholesale access to third party networks, as well as to actual supply by LLU operators of wholesale broadband access products to ISPs.[6]

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[3] The leased lines markets were notified by Ofcom on 17 January under cases UK/2008/747-749, where Ofcom proposes to include SDSL services within the scope of the relevant market.

[4] As to concrete figures: in December 2003 BT sold 512 Kbit/s for a price of £27.00/month compared to today's prices of £17.99/month for 8 Mbit/s and even £16.74/month if the consumer subscribes for 12 months.

[5] In that respect, it may be noted that there is a difference in the geographic availability of cable-based and ADSL-based broadband services. Cable-based retail broadband services are available to approximately 45% of premises in the UK and according to Ofcom's analysis it seems unlikely that there will be any further roll-out of cable networks in the short to medium term. BT achieved nearly 100% DSL coverage in the UK by the end of 2004.

[6] In particular, Cable & Wireless, one of the main LLU operators in the UK, is concentrating on a wholesale business model.

II.2.2 Geographic market definition

Contrary to its first review, Ofcom now proposes to regionally segment the wholesale broadband access market in the UK excluding the Hull area.[7]

Ofcom considers that since the first review there have been a number of developments suggesting that there may no longer be a national geographic market.[8] In particular, in April 2005 BT introduced geographically de-averaged prices for its wholesale broadband products in 561 of its 5 587 local exchanges, which was extended to 1 016 exchanges on 1 May 2007.

In addition, providers offering broadband services relying on local loop unbundling have increased competitive pressure by offering retail prices and products that vary geographically. As a result of this competitive constraint, BT's retail prices have fallen even more sharply than its wholesale prices. Driven largely by these behavioural examples, Ofcom concludes that competitive conditions are no longer homogenous nationwide and that different geographic markets should be defined.

Ofcom determines that the competitive conditions in the wholesale broadband market are driven by the sustainability of market entry at the level of each exchange and thus in large part by the cost conditions of LLU: once an operator has entered an exchange on the basis of its LLU network it has a strong incentive to reach a maximum of end-users in order to amortise its investment. It considers this to be confirmed by the observation that there is generally more service choice and a wider range of retail pricing options in those areas where there are more competitors. Due to high fixed costs, the decision of a LLU operator to roll out to a particular exchange is mainly driven by the size of the exchange and the possibilities for the operator to realise economies of scale, scope and density.

Accordingly, Ofcom considers that a local exchange area of BT constitutes the smallest appropriate geographic unit for analysing variations in competitive conditions over the territory covered by the network of BT and that the number of operators present in an exchange and the exchange size constitute a good proxy for reflecting the competitive conditions in a given area.

Based on the number of Principal Operators[9] present in the footprint of each of the 5 587 local exchanges operated by BT and the size of the exchange, Ofcom thus defines 3 different geographic markets in the UK excluding the Hull area (which is kept as a separate geographic market). These geographic markets encompass exchange areas which are not necessarily contiguous, but which Ofcom considers on a forward-looking basis exhibit similar competitive conditions:

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7 Ofcom maintains a distinct geographic market for the Hull area, where only Kingston, the local incumbent, is present.

8 The main reasons for Ofcom concluding on a national (the UK excluding the Hull area) geographic market definition for asymmetric broadband origination in the 2003 notification were that:
- BT had priced and continued to price on a national basis at both the retail and the wholesale level;
- the cable operators priced on a national basis, even though their cable franchise areas were in geographically distinct locations;
- ISPs designed and priced their products on a national basis; and
- available evidence on advertising practices suggested that all operators in the broadband internet access market advertised on a national basis.

9 Principal Operators are BT, the cable operator and 6 LLU operators.

Ofcom decided to use a 10% coverage threshold (as of December 2007) as a means of identifying those LLU operators which should be considered as part of an exchange for market definition purposes. Ofcom noted that from the available data it appeared that all the mass-market LLU operators have, or planned to have, coverage of at least 10%. Thus, this threshold was considered a way of filtering out niche operators.

In addition, Ofcom has considered the cable operator as being present within an exchange footprint if it is able to supply at least 65% of the homes and businesses within the footprint.

- Market 1: local exchanges where only BT is present;[10]
- Market 2: local exchanges with 2 or 3 Principal Operators and exchanges where there are forecast to be 4 or more Principal Operators but where the exchange serves less than 10 000 premises;[11] and
- Market 3: local exchanges with 4 or more Principal Operators and exchanges where there are forecast to be 4 or more Principal Operators but where the exchange serves more than 10 000 premises.[12]

While the number of Principal Operators is a variable that indicates that market participants believe that market entry is sustainable, the exchange size variable identifies those exchanges which appear to be able to support sustainable entry.

Ofcom, after considering the available cost information together with the information from LLU operators on the factors that they take into account when planning their network roll-out, considers that an exchange size of at least 10 000 end-users is a size from which sustainable entry is achievable. Ofcom uses the number of end-users covered by an exchange in the context of a forward-looking approach to allocate exchanges for which LLU operators have roll-out plans to markets 2 and 3 respectively.

With regard to the number of Principal Operators, Ofcom considers that those geographic areas served solely by BT are significantly less competitive than those geographic areas where at least one alternative operator is providing services and that the areas where at least 4 operators are present, that is at least two LLU operators, are significantly more competitive than the areas where BT is facing competition from a maximum of two alternative operators (be it LLU or cable).

In its replies of 10 December 2007 and 9 January 2008 to the respective requests for information, Ofcom argues that these markets, defined on the basis of structural criteria such as population density and actual or planned market entry, also broadly correspond to the behavioural elements that point to the existence of different conditions of competition in the wholesale broadband access market across the UK.

In that respect, Ofcom notes that the majority of local exchanges where BT has introduced a de-averaged wholesale price correspond to its identified market 3. They do not however cover all exchanges in market 3. In addition, due to the different geographic commercial strategies of operators in those areas where they provide services relying on LLU, there is an indication of lower average retail prices and more service choice for market 3 than for markets 2 or 1. According to Ofcom, these identified markets are likely to present a relatively stable basis for the timeframe of the current market analysis, since LLU roll-out is becoming more established and reaching a more stable level of development with certain LLU operators having reached a coverage in excess of 90% of all market 3 exchanges.

Furthermore, in its reply of 9 January 2007, Ofcom provided additional information and clarification on certain structural parameters, in particular on market share distribution and development in each of the exchanges included in markets 2 and 3 respectively. Notwithstanding certain variations, this information demonstrates a different pattern in the distribution of BT’s local wholesale market shares between markets 2 and 3 and also indicates that BT’s wholesale market share appears to be declining at a faster rate in response to competitive entry in exchanges allocated to market 3 than in the exchanges allocated to market 2. Additionally, Ofcom noted that population density was considered a

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[10] 3 874 exchanges covering 19.2% of UK premises fall within this market category.

[11] 643 exchanges covering 15.7% of UK premises fall within this market category.

[12] 1 070 exchanges covering 64.4% of UK premises fall within this market category.

principal driver of competitive conditions and that it had observed a strong correlation between areas of high population density and actual or planned market entry.

According to Ofcom, this structural and behavioural evidence supports its conclusions on the different geographic markets identified.

II.3 Finding of significant market power ("SMP")

Following its market analysis, Ofcom concludes that there is no SMP in market 3. In other regional markets, BT is considered to have SMP in markets 1 and 2 and Kingston is found to have SMP in the Hull area.

The SMP assessment is based on market growth and market shares taking into account self-supply by cable and LLU operators; future potential market shares; barriers to entry and expansion including sunk costs and economies of scale, scope and density; and countervailing buying power. In volume terms, BT accounts for 44.8% of market 3. Virgin Media accounts for 30.2% and the LLU operators account for 25.1%. In markets 1 and 2, BT is considered to have market shares of 99% and 78% respectively.

II.4 Regulatory remedies

Ofcom proposes to impose the following obligations on Kingston in the Hull area and on BT in markets 1 and 2: (i) a requirement to provide network access on reasonable request; (ii) a requirement not to discriminate unduly; (iii) a requirement to publish a reference offer; (iv) a requirement to notify terms and conditions; (v) a requirement to notify technical information; and (vi) accounting separation. BT is additionally proposed to be under the obligation of transparency as to quality of service, which will also apply to Kingston Communications in the area of Hull in the event that wholesale demand materialises. No price obligations are intended to be imposed.

As market 3 is considered competitive, the current obligations on BT are proposed to be lifted with a notice period of one year, during which time the current obligations will remain in force.

Additionally, Ofcom indicates that BT has made certain commitments to the industry and to Ofcom *inter alia* in relation to ceilings for future broadband pricing. In particular, BT has committed to reduce the price of its wholesale broadband services, in all parts of the UK, annually until the end of 2010. It also commits to supply wholesale broadband services and not to unduly discriminate, in all parts of the UK, until the end of 2008 and to provide a period of stability to LLU by not introducing geographically targeted reductions, below a certain level, to its wholesale broadband prices.

III CRITERIA FOR ASSESSING SUB-NATIONAL MARKETS

The second round of wholesale broadband access market reviews is showing a certain development. Alternative providers are increasingly investing in their own networks and are building out to connect to the incumbent's local loop in certain regions, in particular in more densely populated areas. Thus, there are parallel infrastructures emerging in certain geographic areas for the provision of broadband services. However, the development of alternative competition, such as that based on LLU, is taking place at different rates across the territory of the Member States.

A key regulatory challenge facing NRAs at present is how geographic variations in competitive conditions may be most appropriately addressed by *ex ante* regulation. In particular, the issue being raised is whether or not the conditions of competition are appreciably different to support the definition of sub-national markets and the finding that the incumbent operator is sufficiently constrained such that regulation may be reduced or completely removed in certain sub-national markets.

Although NRAs are accorded discretionary powers for the market analysis process in the light of the complex character of the economic, factual and legal situations, this process must be carried out in line with the requirements of Articles 15 and 16 of the Framework Directive. It is thus clearly of significant importance that de-regulation of sub-national markets should be based on the evaluation of economically sound and evidence-based criteria applied in a coherent manner across the EU in order to ensure a sufficient degree of consistency across NRAs.

In order to preserve coherent application of the regulatory framework it is important that NRAs can show that the criteria used to define markets and to assess SMP lead to an outcome that is consistent with competition law principles taking account of the forward-looking approach in an *ex ante* environment.

Market definition

The Commission's guidelines on market analysis and the assessment of SMP note that the relevant geographic market comprises an area in which *"the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different"*.[13] The Commission's notice on the definition of the relevant market for the purposes of Community competition law[14] further outlines the Commission's approach to geographic market definition where it states that the Commission *"will take a preliminary view of the scope of the geographic market on the basis of broad indications as to the distribution of market shares between the parties and their competitors, as well as a preliminary analysis of pricing and price differences at national and Community or EEA level. This initial view is used basically as a working hypothesis to focus the Commission's enquiries for the purpose of arriving at a precise geographic market definition"*.[15]

As regards the definition of sub-national markets, the Commission considers that a geographic delineation which is primarily based on the number of operators present in a local exchange is not by itself sufficiently detailed or robust to identify real differences in competitive conditions for the purposes of market definition. In assessing whether conditions of competition within a geographic area are *similar* or *sufficiently homogeneous*, additional structural and behavioural evidence is necessary.

Relevant evidence would include information on the distribution of market shares and the evolution of shares over time. In addition, evidence of differentiated retail or wholesale pricing which might apply could help indicate different regional or local competitive pressure. It is also considered appropriate to look at the pricing of both the incumbent and alternative operators as well as its evolution over time in the relevant areas.

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13 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, OJ C 165, 11.7.2002, para. 56.

14 Commission Notice on the definition of relevant market for the purposes of Community competition law (97/C 372/03), paras 28-31.

15 The notice outlines further that it will also need to be established whether companies in different areas do indeed constitute an alternative source of supply for customers and whether companies located in different areas would face impediments to developing their sales on competitive terms throughout the whole geographic market.

Additional supply and demand characteristics which might give an initial indication of different competitive pressures in different areas should be appropriately examined. In that respect, differences in the functionalities or types of products being offered by both the incumbent and alternative operators or in the marketing strategies being pursued in different geographic areas may further reflect regional/local differences in demand and supply conditions.

If necessary, a further check on supply factors can be carried out to ensure that companies located in different areas do not face impediments to developing their sales on competitive terms throughout the whole geographic market, such as a consideration of the entry conditions in a given area.

It is also important that the proposed market boundaries are sufficiently stable to identify these areas where de-regulation could be justified. This may be possible in the case of the broadband access markets where there is evidence of sustainable competition from alternative providers, in particular from LLU-based providers.

SMP assessment

SMP assessment is the basis for deciding whether or not to de-regulate certain identified sub-national markets. It is therefore of significant importance that the SMP assessment is based on a sufficiently forward-looking market analysis based on existing market conditions.

The Commission considers that the identification of a general trend towards competition should be based on a number of indicators. The entry of competitors at the level of the relevant geographic area, the size of the area and the past and prospective average market shares observed amongst groups of relevant geographic areas may not be sufficient to arrive at the conclusion that a market is effectively competitive on a prospective basis. The analysis of general trends and overall structural indicators could hide the fact that the erosion of the incumbent's market power has different starting points and happens at very different speeds in the individual relevant geographic areas. What is rather more decisive is the extent to which these competitors can or will be able to effectively constrain the behaviour of the incumbent operator.

As set out in the Commission's SMP guidelines,[16] NRAs should therefore assess for each relevant geographic market whether there is evidence of significant constraint on the incumbent's pricing behaviour from alternative providers, in particular from LLU-based providers, taking account of the relevant structural and behavioural criteria observed in the relevant market. In this context it is also important to understand any competitive developments or structural parameters which may be driving any differentiated pricing strategies and to ensure that it is market conditions and not regulation that is driving any differentiated commercial behaviour.

Due regard should also be given to impediments to entry/expansion within the identified different geographic areas which might influence the ability of alternative providers to exert a competitive constraint. In this context, consideration should also be given to potential risk factors that may undermine the future viability of alternative operators, in particular LLU operators. Such factors could include investments in next generation networks ("NGNs") which could have potential technical and economic implications for future unbundling.

[16] Paragraph 72 *et seq.*, in particular 78 *et seq.*

IV COMMENTS

On the basis of the notification and the additional information provided by Ofcom and having due regard to the considerations expressed above, the Commission notes that Ofcom's market definition and SMP analysis is to a certain extent based on considerations which are different from the relevant Commission guidelines. While not raising objections to the new approach chosen by Ofcom (as the first NRA to apply such an approach), the Commission has the following comments:

(1) Strength of indirect constraint from vertically integrated competitors

While potential direct wholesale constraints are noted in the assessment, Ofcom essentially considers that the indirect competitive constraint exercised by vertically integrated competitors, e.g. by cable and LLU operators, at the retail level has a sufficient impact at the wholesale level to justify its inclusion in the wholesale broadband access market. In addition, however, Ofcom notes that LLU operators are starting to sell wholesale services to third parties or are planning to do so in the near future.

The Commission has previously noted that competition at the retail level from vertically integrated undertakings may be such as to exert an indirect constraint on the market for wholesale access services and that such indirect pricing constraints, where they are found to exist, should be taken into account when assessing if the incumbent operator has SMP on the relevant market.[17]

Ofcom appears to consider sources of indirect constraint at the wholesale market definition stage of the analysis because of a perceived risk of market power being overstated if indirect constraints are not included in the relevant market. Conversely, however, if weak constraints are automatically taken into account at the market definition stage, then there is also a risk of prejudging the SMP assessment and understating the real extent of market power at the wholesale level by including self-supplied market shares for all vertically integrated competitors irrespective of whether they are actually constraining the market behaviour of the incumbent.

Because any price increase at the wholesale level is diluted when it is passed through to the retail level, substitution may occur on a smaller scale in response to the smaller retail price increase. This however depends on the degree of customer responsiveness at the retail level. Thus, caution should be afforded when interpreting market shares based on indirect constraints.

In that regard, the Commission invites Ofcom to verify when adopting the final measure whether its assessment of market shares of the various market participants takes proper account of indirect constraints.

In addition, it is essential that the degree or strength of the constraint posed in particular by vertically integrated companies is correctly estimated in the assessment. In that regard, when assessing the effect of indirect substitution through a SSNIP (small but significant non-transitory increase in prices) test it needs to be demonstrated that:

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[17] Explanatory Note to the Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (C(2007) 5406), pp. 34-35. See also the Commission's comments letter on the first broadband access market review in case UK/2003/32.

(i) ISPs would be forced to pass a hypothetical wholesale price increase on to their consumers at the retail level based on the wholesale/retail price ratio;

(ii) there would be sufficient demand substitution at the retail level to retail services based on indirect constraints such as to render the wholesale price increase unprofitable; and

(iii) the customers of the ISPs would not switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices.[18]

The Commission notes that Ofcom takes indirect constraints into account in its market definition only for those exchange areas where Ofcom considers their presence capable of exercising a sufficient competitive constraint. Thus, in view of this approach, even if indirect constraints were taken into account in the market power assessment rather than in the market definition, this would not have led to a significantly different outcome than that currently being proposed by Ofcom.[19]

(2) Geographic market definition and Ofcom's definition of sub-national markets

The aim of market definition is to identify suppliers exercising an actual competitive constraint on other undertakings present in the same relevant product market. As set out in the Commission notice on the definition of the relevant market,[20] "*the exercise of market definition consists in identifying the effective alternative sources of supply for the customers of the undertakings involved, in terms of both products/services and of geographic location of suppliers*".

Taking account of the direct and indirect constraints from LLU operators, wholesale broadband access supply substitution takes place at the level of the exchange. Indeed, according to Ofcom, the roll-out of LLU operators' networks depends on the sustainability of entry at the level of each exchange and therefore takes place on an exchange-to-exchange basis. LLU operators may decide to enter a specific exchange independently of their roll-out decisions in other exchanges, such as surrounding or adjacent ones. The competitive constraint stemming from LLU, whether direct or indirect, on the dominant operator is thus exercised at the level of each exchange. In addition, Ofcom considers that cable only exerts a sufficient (indirect) constraint on BT in those exchanges where the cable network covers at least 65% of the exchange area. This is further supported by the fact that BT de-averages its wholesale prices for specific exchanges.

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18 For example, the hypothetical monopolist could increase its wholesale price while sustaining lower retail prices than the ISPs which purchase its wholesale product without exercising a margin squeeze and could thus gain retail customers from the ISPs while not losing customers to alternative platforms. This could make the price rise profitable.

19 In that regard, while the number of operators and their market shares in a given exchange may have been different had cable and/or LLU not been included at the market definition stage and this may have resulted in a different geographic segmentation of the market, the constraint posed by cable and LLU in local exchange areas would nonetheless need to have been factored into the SMP analysis. Furthermore, Ofcom indicates that most of the large LLU operators are either already selling wholesale services to third parties (albeit in low volumes) or planning to do so in the near future. In its response to the request for information, Ofcom also indicates that there are no obvious constraints to LLU operators increasing their provision of wholesale services.

20 Paragraph 13 *et seq*.

Ofcom acknowledges that based solely on supply considerations, each of the exchanges would be a separate relevant geographic market. In order to avoid defining such narrow markets, Ofcom prefers however to define geographic markets based on the concept of "similar competitive conditions". Ofcom recognised that this entails performing types of analyses "similar to some of those which Ofcom would adopt when assessing SMP in a relevant economic market".

The Commission prefers an approach where the elements relating to the SMP assessment are considered together in one analytical step and not split up such that some are found in the geographic market definition and some in the SMP assessment. The Commission therefore finds that Ofcom's analysis would have been clearer if it had defined each of the 5 587 exchanges as a separate relevant geographic wholesale broadband access market.

However, the Commission also recognises the practical difficulties in carrying out a detailed SMP analysis for each of these 5 587 geographic markets. It therefore accepts the general principle that, where there is robust evidence, those exchanges which display similar or sufficiently homogenous conditions of competition can be grouped together in order to carry out the SMP assessment.

To facilitate this grouping of geographic markets in the present case, the number of competitors present at a given exchange, even in combination with the size of that exchange, is in itself not sufficient. In this respect, the distribution of market shares as well as a preliminary analysis of pricing and price differences observed in the different exchanges are among the essential parameters.

Ofcom has therefore supplied information which provides insight into the similarity of competitive conditions across local exchange areas in the UK. It provided information on market shares and their development over time within individual exchange areas in its identified markets 2 and 3. This information reveals appreciably different conditions of competition in the two markets.

Ofcom has also provided additional information on pricing which indicates that BT has extended its wholesale price discounting behaviour and that this differentiated wholesale pricing can be observed at a majority of the exchanges in market 3. In addition the Commission notes that retail broadband prices have fallen since Ofcom's first review of the wholesale broadband access market in 2003[21] and that these retail prices have fallen more sharply than wholesale prices. This also seems to indicate that BT's behaviour is constrained to a certain extent by alternative suppliers of broadband services.

Furthermore, it appears that LLU roll-out is continuing and some LLU operators have significantly increased their coverage of market 3 exchanges between 2006 and 2007, thereby suggesting broad similarities in the entry and cost conditions present across these geographic areas. In that regard, Ofcom's assessment also considers levels of sunk investments and the degree of economies of scale and density sufficient to support competitive entry in local exchange areas in the UK.

On the basis of the above information, it would appear that, while a certain ambiguity in competitive conditions may arise at the margins of Ofcom's identified markets 2 and 3, Ofcom's analysis rests on a sufficiently robust evidential basis across the range of exchanges in market 3. In reaching this conclusion, the Commission also bears in mind that Ofcom is constrained by the need to establish a workable approach in carrying out its market review.

[21] For details, see above footnote 4.

Therefore, the Commission invites Ofcom to further substantiate in its final measure its aggregation of geographic "units" in its proposed "markets", based on the detailed information submitted in its replies to the requests for information and in particular with reference to the distribution and evolution of market shares and pricing within different geographic areas in accordance with competition law principles, as discussed in section III above.

(3) Monitoring of trend towards effective competition

As noted above, there is evidence of an overall trend towards competition in respect of the majority of exchanges included in Ofcom's proposed market 3. In that respect, LLU roll-out is relatively advanced and there is evidence of market share decline which would indicate that the market is becoming competitive. Furthermore, the development of LLU coverage and competition in the UK would also appear to be reaching a stage whereby it may be reasonable to infer that the proposed market boundaries will remain relatively stable over the timeframe of this review.

However, the detailed evidence provided by Ofcom in response to the requests for information on the market shares and market share evolution (for the period October 2006-October 2007) at the exchange level showed that for certain outlier exchanges in market 3 the competitive dynamic may not have been sufficiently established at this stage. For example, for some exchanges BT's market share at the wholesale level was still at or above the 50% threshold in October 2007. According to the SMP guidelines, this is in itself an indication of dominance save for exceptional circumstances.[22] The notification did not set out clearly the presence of such exceptional circumstances for all of these exchanges.

In its letter of 12 February 2008, Ofcom recognised that the 50% market share threshold in the SMP guidelines is one of the relevant parameters for assessing competitive constraints when following an approach whereby various small geographic markets (e.g. exchange areas) are grouped together for pragmatic reasons for the purpose of the SMP assessment.

Ofcom stated however that the introduction of this additional parameter would not lead to different conclusions. Ofcom provided further insight into the most recent competitive developments in certain exchanges included in market 3. It noted that in most of them competitive entry had taken place only very recently and, similar to the other exchanges included in market 3, expects that BT's market share will fall rapidly after market entry has occurred. Ofcom thus considers that its predictions on the evolution of competition in those exchanges are not unduly speculative.

Based on this additional information, there is an indication that market 3 exchanges will move towards an effectively competitive outcome. In addition, the Commission notes that the existing regulation in those exchanges will be maintained for a transitional period of one year and welcomes Ofcom's commitment to carefully monitor the progression of competition in all market 3 exchanges, and reconsider its decision to de-regulate at those exchanges that do not follow the predicted competitive trend, and to conduct a further market review.

22 Paragraph 75.

(4) Sustainability of competition from alternative providers

In its analysis Ofcom identifies competition between networks based on LLU as a crucial factor in maintaining the UK's broadband progress.[23] While Ofcom's notification notes that no single operator apart from BT is currently predicted to have complete coverage of all local exchanges included within its identified market 3 by June 2008, the information provided by Ofcom suggests that two Principal LLU Operators are currently able to address customers in more than 90% of the exchanges included in this market and that a further three Principal LLU Operators will be able to address customers in over 80% of this market by June 2008.

It is clear that the level of LLU coverage and competition in the UK forms a key feature of Ofcom's review of the wholesale broadband access market and is a key ingredient in the conclusions reached.

Potential risk factors to the sustainability of LLU investment going forward could, however, include developments in access technologies such as next generation access (NGA) investment. NGA will provide end-users with a possibility to receive high bandwidth broadband services and thus represent a potential benefit to end-users in terms of quality of service. While the consequences of the development of NGA technologies are as yet unclear, it could be that in future access networks the unbundling of local loops may prove technically and economically difficult for alternative operators, in particular with regard to the need to extend their network to a lower network level with a more limited number of total end customers and/or revenues per user.

In its assessment, Ofcom notes that alternative technologies are not sufficiently widespread or utilised to have any real impact in the wholesale broadband access market over its review. Notwithstanding this, in view of the clear importance of LLU roll-out and competition to Ofcom's conclusions in its review of the wholesale broadband access markets, the Commission invites Ofcom to continue to closely monitor LLU investment and, in particular, any risk factors that might affect its growth or sustainability going forward, such as the effective availability of LLU, and to conduct a further review of the market should an appreciable change in the level of LLU investment and competition occur.

In addition, as regards the overall sustainability of wholesale competition and the provision of wholesale broadband access services over Ofcom's review, the Commission notes Ofcom's finding that market 3 represents those exchange areas where the incumbent faces effective competition from a number of vertically integrated providers of broadband services. Thus, market conditions would suggest that competitive pressures exist for BT to continue to provide a wholesale broadband offering both for residential and business users independently of regulation in those areas. This is because a refusal to supply bitstream to ISPs could involve a risk of some of those ISPs' customers migrating to other vertically integrated operators and not to BT. There may therefore be commercial incentives for BT to continue supplying those ISPs with bitstream services rather than risk losing the revenues to alternative providers. Therefore, the Commission underlines the need for Ofcom to closely monitor the overall level of wholesale competition and the provision of wholesale broadband access services in the UK to ensure that both business and

[23] At the time of Ofcom's notification, 1 636 BT exchanges (78.3% of UK delivery points) were enabled by at least one LLU operator with the Principal LLU Operators present at 1 478 exchanges or 76% of delivery points in June 2007.

residential users are adequately protected by effective wholesale competition over the timeframe of its review.

Pursuant to Article 7(5) of the Framework Directive, Ofcom shall take the utmost account of comments of other national regulatory authorities and the Commission and may adopt the resulting draft measure and, where it does so, shall communicate it to the Commission.

The Commission's position on this particular notification is without prejudice to any position it may take vis-à-vis other notified draft measures.

Pursuant to Point 12 of Recommendation 2003/561/EC,[24] the Commission will publish this document on its website. The Commission does not consider the information contained herein to be confidential. You are invited to inform the Commission[25] within three working days following receipt whether you consider that, in accordance with Community and national rules on business confidentiality, this document contains confidential information which you wish to have deleted prior to such publication. You should give reasons for any such request.

Yours sincerely,
For the Commission,
Fabio Colasanti
Director-General

Yours sincerely,
For the Commission,
Philip Lowe
Director-General

24 Commission Recommendation 2003/561/EC of 23 July 2003 on notifications, time limits and consultations provided for in Article 7 of Directive 2002/21/EC, OJ L 190, 30.7.2003, p. 13.

25 Your request should be sent either by email: INFSO-COMP-ARTICLE7@ec.europa.eu or by fax: +32.2.298.87.82.