



# Review of fixed call origination and termination markets 2016-19

Call for inputs

Consultation

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14 May 2015

## About this document

Fixed call origination and termination underpin the delivery of retail fixed voice calls in the UK. We are reviewing the markets for wholesale fixed call origination and wholesale fixed call termination in order to understand the effectiveness of competition in these wholesale markets. If they are not effectively competitive, we will need to consider the appropriate regulation necessary to ensure effective competition in those retail services that depend on them.

This document sets out the proposed scope of our review, and asks stakeholders for views and evidence to assist our analysis.

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## Section 1

# Introduction

- 1.1 Under the European common regulatory framework for electronic communications,<sup>1</sup> Ofcom is required to carry out periodic reviews of electronic communications markets in the UK.<sup>2</sup>
- 1.2 In line with this requirement we are starting our latest review of wholesale fixed call origination and termination in the UK. These wholesale services underpin the provision of retail fixed voice calls in the UK. While this review focuses on the wholesale markets, the decisions we take here will ultimately affect the prices, choice and availability of retail fixed voice services.
- 1.3 We concluded our last review of these markets in 2013. Our final statement, setting out our conclusions on market definition, significant market power (SMP) and appropriate remedies, was published in September 2013 (the 2013 Narrowband Statement).<sup>3</sup>
- 1.4 This review will:
  - 1.4.1 identify the relevant products and services and the appropriate geographic areas within which those products and services should be considered so as to define the relevant economic markets for our analysis;
  - 1.4.2 examine each of those markets in order to determine whether the relevant market is effectively competitive; and
  - 1.4.3 if we determine that a relevant market is not effectively competitive, consider the appropriate regulatory remedies to impose on the CP(s) with SMP in the relevant market.
- 1.5 We intend to finish this review in time for any new regulatory remedies that we may impose, including, if appropriate, any new charge controls, to take effect from when the current network charge control expires at the end of September 2016.

## Aim of this call for inputs

- 1.6 This call for inputs (CFI) is the first stage of our review process. In particular we invite views and evidence on:
  - 1.6.1 the scope of the review (i.e. the markets to be reviewed and the issues on which we should focus);

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<sup>1</sup> 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 (the Framework Directive), as amended by Directive 2009/140/EC and Regulation 544/2009, together with the “Specific Directives” as referred to and defined therein,

[http://ec.europa.eu/information\\_society/policy/ecomm/doc/140framework.pdf](http://ec.europa.eu/information_society/policy/ecomm/doc/140framework.pdf)

<sup>2</sup> Article 16, *ibid.*

<sup>3</sup> See Ofcom, *Review of the fixed narrowband services markets – statement*, 26 September 2013,

<http://stakeholders.ofcom.org.uk/consultations/nmr-13/>

- 1.6.2 relevant developments since the last review that may affect market definition and SMP analysis; and
- 1.6.3 the effectiveness and appropriateness of existing remedies.
- 1.7 This CFI sets out our proposed scope and the issues we intend to consider. We will test them against evidence and set out in a public consultation our detailed proposals before making any decision about the regulatory remedies that would apply after September 2016.
- 1.8 We seek responses to this CFI by 14 May 2015. We encourage stakeholders to provide a reasoned explanation of their views, along with supporting evidence where available. We will also start to gather information from CPs using our statutory powers and from consumers through market research.

## Scope of the review

- 1.9 We intend to focus on wholesale call origination and wholesale call termination, with the aim of ensuring effective competition in retail fixed voice services. As with previous reviews, we intend to also cover interconnection insofar as it is necessary to ensure the effectiveness of any remedies in the wholesale call origination and wholesale call termination markets. As we have reviewed these markets a number of times,<sup>4</sup> we are particularly interested to receive views on how the markets have developed since our last review and what changes, if any, to wholesale regulation are necessary or appropriate in order to deliver effective competition in retail fixed voice services.
- 1.10 We deregulated the retail fixed voice markets in the UK excluding the Hull Area in 2009 and in the Hull Area in 2013.<sup>5</sup> We do not therefore intend to consider retail markets in this review, except to the extent that doing so informs our analysis of wholesale markets. Similarly, we deregulated the single transit market in 2013 and do not propose to consider single transit in this review.<sup>6</sup>

## Questions

- 1.1 *Do you agree with the proposed scope of this review, in particular the focus on wholesale call origination, wholesale call termination and interconnection?*

## Structure of the document

- 1.11 In the following sections, we set out for each of wholesale call origination, wholesale call termination and interconnection:
  - 1.11.1 our findings in the last review; and

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<sup>4</sup> Previous reviews were carried out in 2003, 2005, 2009 and 2013.

<sup>5</sup> In the 2013 Narrowband Statement we explained that, in the Hull area, although KCOM's market share remained high both in retail and residential and in retail business calls, we considered that *ex post* competition law was sufficient to address any competition concerns at the retail level.

<sup>6</sup> In the 2013 Narrowband Statement we said that we considered that *ex ante* regulation of the single transit market was no longer appropriate on the basis that *ex post* competition law was sufficient to address any competition concerns that may arise.

- 1.11.2 our preliminary identification of the key issues for this review.
- 1.12 Annex 1 explains how to respond to this document.

## Section 2

# Wholesale call origination

## Findings of the last review

### Market definition<sup>7</sup>

#### Product market

- 2.1 We concluded in the 2013 Narrowband Statement that the relevant product market was “*wholesale call origination on a fixed narrowband network*”. This covered wholesale call origination provided over a CP’s own exchange line (including cable and ISDN<sup>8</sup>) or using an upstream service such as Local Loop Unbundling (LLU).<sup>9</sup>
- 2.2 We found that there were no clear direct competitive constraints to fixed call origination. We also found that mobile, VoIP, text-based and social media services<sup>10</sup> did not offer sufficient indirect competitive constraints to be included in the relevant product market.<sup>11</sup>

#### Geographic market

- 2.3 We concluded that there were two geographic markets: the UK excluding the Hull Area; and the Hull Area.

### SMP assessment<sup>12</sup>

#### The UK excluding the Hull Area

- 2.4 We concluded that BT had SMP in the UK excluding the Hull Area for the following reasons:
  - 2.4.1 while BT’s market share had declined, reflecting the increasing use of Metallic Path Facility (MPF) LLU, it remained above 60 per cent;<sup>13</sup> and

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<sup>7</sup> See Section 5, Ofcom, *Review of the fixed narrowband services markets – statement*, 26 September 2013, <http://stakeholders.ofcom.org.uk/consultations/nmr-13/>

<sup>8</sup> Integrated Services Digital Network, or ISDN, is a type of digital telephone line service that provides up to 2 or up to 30 lines over a common digital bearer circuit. These lines provide digital voice telephony, data services and a wide range of ancillary services.

<sup>9</sup> LLU enables CPs other than BT to provide their own services either through full unbundling or shared unbundling. Full unbundling, or MPF, allows the CP to provide both voice and broadband services. With partial unbundling (SMPF), the CP provides its own broadband services, using BT’s Wholesale Line Rental Product to provide voice services.

<sup>10</sup> For example, services such as SMS and Facebook.

<sup>11</sup> Indirect constraints arise when a wholesale price rise is passed on to retail customers, causing those retail customers to switch, in numbers sufficient to make the initial price rise unprofitable, to other retail products which do not require the relevant wholesale service.

<sup>12</sup> See Section 5, Ofcom, *Review of the fixed narrowband services markets – statement*, 26 September 2013, <http://stakeholders.ofcom.org.uk/consultations/nmr-13/>

<sup>13</sup> Further, although LLU deployment had reached approximately 90 per cent of households, we found that certain operational issues (e.g. shortage of co-location spaces in BT’s local exchanges) meant that in certain areas LLU was only able to provide a limited competitive constraint.

- 2.4.2 in the absence of regulation, BT faced insufficient constraints on the price of wholesale call origination, with a significant proportion of retail customers facing limited alternatives to services provided using BT’s wholesale call origination (for example, residential customers outside of the MPF footprint, customers purchasing fixed voice and broadband services separately or customers taking fixed voice services only).

**The Hull Area**

- 2.5 We found that KCOM, the only supplier of wholesale analogue lines in the Hull Area, had a 100 per cent market share of wholesale call origination. Entry had been limited, with high barriers to entry (including high sunk costs to be recouped over a comparatively small customer base), and limited competitive constraints. As such, we concluded that KCOM had SMP in the Hull Area.

**Remedies**

- 2.6 Table 2.1 sets out the remedies that we imposed on BT and KCOM for wholesale call origination under the 2013 Narrowband Statement.

**Table 2.1: Summary of remedies for wholesale call origination imposed in the 2013 Narrowband Statement**

BT obligations	KCOM obligations
<ul style="list-style-type: none"> <li>Requirement to provide network access on reasonable request</li> <li>Requests for new forms of network access</li> <li>Requirement not to unduly discriminate</li> <li>Requirement to publish a reference offer</li> <li>Requirement to notify charges</li> <li>Requirement to notify technical information</li> <li>Transparency as to quality of service</li> <li>Cost accounting</li> <li>Accounting separation</li> <li>Requirement to provide NTS wholesale call origination</li> <li>Charge control</li> </ul>	<ul style="list-style-type: none"> <li>Requirement to provide network access on reasonable request</li> <li>Requirement not to unduly discriminate</li> <li>Requirement to publish a reference offer</li> <li>Requirement to notify charges</li> <li>Requirement to notify technical information</li> <li>Accounting separation</li> </ul>

Source: Table 5.1, 2013 Narrowband Statement.

Note: The remedies in relation to non-geographic call services (specifically, the NTS Call Origination obligation, including the NTS Retail Uplift and PRS Bad Debt Surcharge charge controls) included a sunset clause such that they would no longer apply once the separate review of non-geographic call services was completed and resulting changes to the regime implemented. The new regime for non-geographic call services will apply from 1 July 2015 (see <http://www.ukcalling.info/>). Consequently these remedies will no longer apply from that date and we do not propose to address these services further in this review.

## Issues for this review

- 2.7 Issues to consider for this review include, in particular:
- 2.7.1 whether wholesale call origination is still susceptible to *ex ante* regulation; and
  - 2.7.2 market trends in LLU/MPF take-up and use of mobile and other alternatives to fixed voice calls (i.e. competitive constraints on wholesale call origination).

### Is wholesale call origination still susceptible to *ex ante* regulation?

- 2.8 In carrying out a market review, we are obliged to define relevant markets “*appropriate to national circumstances...in accordance with the principles of competition law.*”<sup>14</sup> In so doing, we are obliged, amongst other things, to take “*utmost account*” of the European Commission’s (EC) Recommendation on relevant product and service markets which identifies markets which are susceptible to *ex ante* regulation.<sup>15</sup>
- 2.9 Where markets are not identified by the EC in its Recommendation, they may be susceptible to *ex ante* regulation if they satisfy three cumulative criteria (the ‘three-criteria test’):
- 2.9.1 the presence of high and non-transitory barriers to entry;
  - 2.9.2 a market structure which does not tend towards effective competition within the relevant time horizon; and
  - 2.9.3 the insufficiency of competition law alone to adequately address the market failure(s) identified.<sup>16</sup>
- 2.10 On 9 October 2014, the EC issued a new Recommendation on relevant markets (the 2014 EC Recommendation), which replaced the 2007 EC Recommendation. Of particular relevance to this review is that wholesale call origination is no longer on the list of product and service markets identified by the EC as being susceptible to *ex ante* regulation.<sup>17</sup> The removal of wholesale call origination from this list means that in this review we do not start from a presumption that the market is susceptible to *ex ante* regulation (unlike the 2013 review).

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<sup>14</sup> See Article 15(3), EC, *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, as amended by Directive 2009/140/EC and Regulation 544/2009*, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014H0710&rid=2>

<sup>15</sup> EC, *Commission Recommendation of 9 October 2014 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*, [http://ec.europa.eu/information\\_society/newsroom/cf/dae/document.cfm?action=display&doc\\_id=7045](http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?action=display&doc_id=7045)

<sup>16</sup> Point 2, *ibid.*

<sup>17</sup> See the Annex to the 2014 EC Recommendation for the list of product and service markets that the EC have identified as being susceptible to *ex ante* regulation (<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014H0710&rid=2>).

- 2.11 However, as explained in paragraph 2.9, we can identify relevant markets in the UK other than those in the 2014 EC Recommendation as susceptible to regulation where the three-criteria test is met. Given that the market for wholesale call origination is currently regulated, we will apply the three-criteria test in order to assess whether this market is susceptible to *ex ante* regulation. In order to do so, we will first define the relevant market before assessing whether each of the three criteria is met. If all three criteria are met, we will then go on to assess whether the market is effectively competitive.

### Competitive constraints on wholesale call origination

- 2.12 We intend to consider the extent to which other services – in particular calls from mobile phones and Voice over Internet Protocol (VoIP) calls,<sup>18</sup> but also text-based and social media services – now provide competitive constraints on BT and KCOM.
- 2.13 In conducting our analysis, we intend to take into account trends since the last review. We note that, for example, the Communications Market Report 2014 found that 35 per cent of consumers used VoIP, up from 22 per cent in 2012.<sup>19</sup>
- 2.14 Similarly, mobile calls accounted for 59 per cent of outgoing call minutes in 2013, up from 56 per cent in 2012 and continuing a trend seen since 2010 when mobile call origination overtook fixed call origination for the first time. However, we also note that the number of fixed lines has increased.<sup>20</sup>
- 2.15 The proportion of LLU accounted for by MPF (compared with SMPF) has also increased, from 81 per cent in 2013 to 86 per cent in 2014.<sup>21</sup> The overall LLU footprint has also grown since the last review. However, this increase is relatively small (from 94 per cent of UK premises in 2012 to 95 per cent in 2013<sup>22</sup>), reflecting that much of the country has already been unbundled (as discussed in the 2013 Narrowband Statement). Further, CPs are now beginning to use Virtual Unbundled Local Access (VULA). BT's fibre network, over which its VULA product is provided, passed 67 per cent of UK premises in 2014, up from 35 per cent in 2012. Take-up of superfast services by consumers has increased from 6.4 per cent of all connections in 2012 to over 26 per cent in 2014.<sup>23</sup>
- 2.16 We intend to examine these trends in more detail and the underlying reasons for these trends to understand what they indicate about competition in the wholesale call origination market. We also intend to consider the implications for residential and business end-users (and whether there are any differences between the two groups).

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<sup>18</sup> Whether managed or unmanaged VoIP services. As defined in the 2013 Narrowband Statement, unmanaged VoIP services are where the voice service provider is different to the broadband provider and can be provided using software or specialist CPE (for example, Skype or Vonage). Managed VoIP services are where the voice service provider and broadband service provider of the calling party are the same.

<sup>19</sup> See figure 5.11, Ofcom, *Communications Market Report 2014*, 7 August 2014, [http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr14/2014\\_UK\\_CMV.pdf](http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr14/2014_UK_CMV.pdf)

<sup>20</sup> See figure 5.36, *ibid.*

<sup>21</sup> See figure 5.31, *ibid.*

<sup>22</sup> See figure 5.30, *ibid.*

<sup>23</sup> See figures 5.6 and 5.8, *ibid.*

## **The impact on competition and consumers in retail calls markets if there were no longer a regulated fixed call origination service**

2.17 We are particularly interested in stakeholders' views about the choice of services and the competitive constraints that would be available to the following end user groups in the absence of wholesale call origination regulation:

- 2.17.1 customers outside the LLU footprint;
- 2.17.2 customers taking fixed voice services only (i.e. customers who do not have a mobile and/or do not also take broadband); and
- 2.17.3 Small and medium sized enterprises (SMEs).

### **Remedies**

2.18 If we find that the market is susceptible to *ex ante* regulation and that it is not effectively competitive, we must identify the CP(s) with SMP and impose appropriate obligations. In considering what obligations it would be appropriate to impose, we will consider whether current remedies remain effective and proportionate.

### **Questions**

2.1 *Do you have any comments or views (supported by evidence where available) on the issues identified with respect to wholesale call origination?*

2.2 *Do you think there are other issues we should be considering with respect to wholesale call origination? Please provide evidence where available to support your comments.*

## Section 3

# Wholesale call termination

## Findings of the last review

### Market definition<sup>24</sup>

#### Product market

- 3.1 We concluded in the 2013 Narrowband Statement that the relevant product market was termination services<sup>25</sup> provided by a CP for the termination of voice calls to UK geographic numbers in the area served by that CP. A CP providing services to an end-user making a call has no alternative to purchasing wholesale call termination from the CP controlling the geographic number called. Competitors are physically unable to offer an equivalent wholesale call termination service as by definition the called party is connected to a single terminating network that provides termination to their number. We found that an increase in the price of fixed call termination would be unlikely to affect a consumer's decision to call a particular fixed geographic number.
- 3.2 We also concluded that, given the differences in the conditions of competition between geographic and non-geographic numbers, call termination to non-geographic numbers was outside the relevant market. In particular, we noted that non-geographic service providers can switch between terminating CPs on the basis of their competitive offerings, including termination rates.

#### Geographic market

- 3.3 We concluded that the geographic extent of each market is defined as the area served by that CP within the UK. The competitive conditions faced by a CP are not affected by the number of other CPs in a particular geographic area given that termination provided by one CP is not a substitute for termination provided by another CP.

### SMP assessment<sup>26</sup>

- 3.4 We concluded in the 2013 Narrowband Statement that given our market definition each number range holder has 100% of the market for calls terminating on its numbers. We found there was unlikely to be any incentive for a CP to allow another CP to terminate calls to its number ranges (in effect giving up its monopoly) and there was insufficient countervailing buyer power to counteract the terminating CP's position of strength as a unique provider of termination to the number range in question. As such, we concluded that each CP held SMP in respect of wholesale call termination to its number range.

<sup>24</sup> See Section 6, Ofcom, *Review of the fixed narrowband services markets – statement*, 26 September 2013, <http://stakeholders.ofcom.org.uk/consultations/nmr-13/>

<sup>25</sup> Defined as the conveyance of all signals (including relevant control signals) required to terminate calls on a customer's exchange line from the point in the network closest to the end customer's point of connection to the network where those signals can be accessed by another CP.

<sup>26</sup> See Section 6, Ofcom, *Review of the fixed narrowband services markets – statement*, 26 September 2013, <http://stakeholders.ofcom.org.uk/consultations/nmr-13/>

## Remedies

3.5 Table 3.1 sets out the remedies imposed under the 2013 Narrowband Statement for wholesale call termination.

**Table 3.1: Summary of the remedies for wholesale call termination imposed in the 2013 Narrowband Statement**

BT obligations	Obligations for all other CPs with SMP in the provision of wholesale call termination services (including KCOM)
<ul style="list-style-type: none"> <li>• Requirement to provide network access on reasonable request</li> <li>• Requirement not to unduly discriminate</li> <li>• Charge control</li> <li>• Requirement to publish a reference offer</li> <li>• Requirement to notify charges</li> <li>• Requirement to notify technical information</li> <li>• Cost accounting</li> <li>• Accounting separation</li> </ul>	<ul style="list-style-type: none"> <li>• Requirement to provide network access on reasonable request<sup>27</sup></li> <li>• Requirement to notify charges</li> </ul>

Source: Figure 6.1, 2013 Narrowband Statement.

3.6 We imposed a charge control on BT in order to ensure regulatory certainty and sufficient transparency over BT's pricing. However, we considered that a charge control for other CPs, including KCOM, would be disproportionate. Setting a charge control on other CPs would require an assessment of costs for a large number of different CPs or would at the very least impose relatively significant compliance costs (if we adopted a weighted average cap approach, for example).

3.7 CPs other than BT were instead subject to a fair and reasonable terms, conditions and charges requirement. Under this obligation, fixed termination rates should be no higher than BT's regulated rate unless the following tests are met:<sup>28</sup>

3.7.1 charging a fixed termination rate equal to BT's regulated rate would deny the relevant CP recovery of its actual costs of providing fixed geographic call termination;

3.7.2 the relevant CP's actual costs of providing fixed geographic call termination are efficiently incurred; and

<sup>27</sup> This includes fair and reasonable terms, conditions and charges with guidance (see paragraphs 6.125-6.135, Ofcom, *Review of the fixed narrowband services markets – statement*, 26 September 2013, <http://stakeholders.ofcom.org.uk/consultations/nmr-13/>

<sup>28</sup> Ofcom, *Guidance on fair and reasonable charges for fixed geographic call termination*, 27 April 2011, <http://stakeholders.ofcom.org.uk/binaries/consultations/778516/statement/fair-reasonable-statement.pdf>

- 3.7.3 charging a higher fixed termination rate than BT's regulated rate would be offset by demonstrable consumer benefit (e.g. lower overall end-to-end call costs for calls to the CP's network or a higher quality of service).

## Issues for this review

- 3.8 Unlike wholesale call origination, wholesale call termination remains on the list of product and service markets identified as being susceptible to *ex ante* regulation set out in the 2014 EC Recommendation. As such, we start this review with a presumption that this market is susceptible to *ex ante* regulation. We will proceed to define the relevant market, assess whether the market is effectively competitive and, if the market is not effectively competitive, assess the appropriate remedies to impose on the CP(s) with SMP in the relevant market.

## Market definition and SMP

- 3.9 We are not aware of any significant developments in the market since we completed our last review. Nevertheless, in performing our analysis, we intend to have particular regard to:
- 3.9.1 what changes, if any, there have been in the competitive conditions involved in providing fixed call termination; and
- 3.9.2 whether, and if so how, the regulation of fixed termination rates at LRIC (consistent with the 2009 EC Recommendation on the regulatory treatment of fixed and mobile termination rates<sup>29</sup>) has affected competition in related markets.

## Remedies

- 3.10 If we find that CPs hold SMP in wholesale call termination and the market is not effectively competitive, we will consider what remedies would be appropriate, including whether current remedies remain effective and proportionate. In particular, we intend to consider:
- 3.10.1 whether, as with mobile termination rates, all CPs found to have SMP in fixed call termination should be subject to a charge control, or whether regulation on the basis of fair and reasonable terms and conditions including charges is sufficient to address competition concerns related to CPs other than BT;
- 3.10.2 whether flexibility to allow CPs to set different termination rates by "time of day" is still required for the efficient pricing of fixed voice calls; and
- 3.10.3 whether there are any reasons to depart from the use of a LRIC cost standard and Next Generation Network (NGN) technology in calculating the cap for fixed termination.

<sup>29</sup> EC, *Commission recommendation of 7 May 2009 on the regulatory treatment of fixed and mobile termination rates in the EU*, [http://ec.europa.eu/smart-regulation/impact/ia\\_carried\\_out/docs/ia\\_2009/c\\_2009\\_3359\\_en.pdf](http://ec.europa.eu/smart-regulation/impact/ia_carried_out/docs/ia_2009/c_2009_3359_en.pdf)

## Questions

- 3.1 *Do you have any comments or views (supported by evidence where available) on the issues identified with respect to wholesale call termination?*
- 3.2 *Do you think there are other issues we should be considering with respect to wholesale call termination? Please provide evidence where available to support your comments.*

## Section 4

# Interconnection

## Findings of the last review

4.1 Interconnection circuits provide the physical infrastructure to connect the exchanges of two CPs in order to allow traffic to pass between them. While all CPs have obligations related to interconnection under General Condition 1,<sup>30</sup> we nonetheless considered it necessary to impose additional regulation on BT and KCOM for the provision of wholesale interconnection services to ensure the effectiveness of the remedies imposed in the wholesale call origination and wholesale call termination markets.

### BT<sup>31</sup>

4.2 BT's network is larger than that of all other CPs and includes a large number of exchanges at which other CPs need to interconnect in order to access wholesale call origination and call termination services. Other CPs could extend their own networks; however, this will not always be economic. The alternative is to use interconnection provided by BT.

4.3 In the 2013 Narrowband Statement we said that we considered that, in the absence of regulation, BT would have the ability and incentive to leverage its SMP from the wholesale call origination and wholesale call termination markets into the provision of interconnection. For example, BT could refuse to provide interconnection, which would make BT's obligations to provide wholesale call origination and wholesale call termination ineffective. Alternatively, BT could set prices for interconnection at a level that would mean the charge controls for BT's wholesale call origination and wholesale call termination services were ineffective.

### KCOM<sup>32</sup>

4.4 We considered that KCOM would similarly be able to leverage its SMP with respect to wholesale call origination in the Hull Area. Refusing to provide interconnection, or setting high prices for interconnection, would result in remedies for wholesale call origination being ineffective.

### Other CPs<sup>33</sup>

4.5 We did not consider that specific interconnection regulation was necessary to ensure the effectiveness of the regulatory obligations imposed on other CPs in the wholesale call termination market.

<sup>30</sup> Ofcom, *General conditions of entitlement*, <http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/general-conditions/>

<sup>31</sup> See Section 10, Ofcom, *Review of the fixed narrowband services markets – statement*, 26 September 2013, <http://stakeholders.ofcom.org.uk/consultations/nmr-13/>

<sup>32</sup> *ibid.*

<sup>33</sup> *ibid.*

## Remedies

- 4.6 Table 4.1 sets out the remedies imposed for interconnection on BT (as a result of its SMP in wholesale call origination and wholesale call termination in the UK excluding the Hull Area), and KCOM (as a result of its SMP in wholesale call origination in the Hull Area).

**Table 4.1: Summary of remedies for interconnection imposed in the 2013 Narrowband Statement**

BT obligations	KCOM obligations
<ul style="list-style-type: none"> <li>Requirement to provide network access on reasonable request</li> <li>Requests for new forms of network access</li> <li>Requirement not to unduly discriminate</li> <li>Requirement to publish a reference offer</li> <li>Requirement to notify charges</li> <li>Requirement to notify technical information</li> <li>Cost accounting</li> <li>Accounting separation</li> <li>Transparency as to quality of service</li> <li>Charge control</li> </ul>	<ul style="list-style-type: none"> <li>Requirement to provide network access on reasonable request</li> <li>Requirement not to unduly discriminate</li> <li>Requirement to publish a reference offer</li> <li>Requirement to notify charges</li> <li>Requirement to notify technical information</li> </ul>

Source: Figure 10.1, 2013 Narrowband Statement.

## Issues for this review

- 4.7 We intend to consider whether, in light of our findings in the wholesale call origination and wholesale call termination markets, regulation of interconnection services remains necessary and, if so, what regulation would be appropriate and proportionate.
- 4.8 In doing so, we intend to consider the effectiveness of current remedies. In particular, we intend to consider:
- 4.8.1 whether the approach to technology choice we took in the last review, and its implications for interconnection, remains appropriate or whether there is evidence to suggest an alternative approach should be taken; and
- 4.8.2 whether it is appropriate to impose a charge control, and if so the basis on which it should be set.

## Questions

4.1 *Do you have any comments or views (supported by evidence where available) on the issues identified with respect to interconnection?*

4.2 *Do you think there are other issues we should be considering with respect to interconnection? Please provide evidence where available to support your comments.*

## Annex 1

# Responding to this consultation

## How to respond

- A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 14 May 2015**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <http://stakeholders.ofcom.org.uk/consultations/review-fixed-call-origination-termination-markets/> as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 3), to indicate whether any part of your response is confidential. This response coversheet is incorporated into the online web form questionnaire.
- A1.3 Please email larger responses to [fcot2016@ofcom.org.uk](mailto:fcot2016@ofcom.org.uk), together with a consultation response coversheet. If any part of your response is confidential, it would assist us if such information is highlighted.
- A1.4 Responses may alternatively be posted to the address below, marked with the title of the consultation.
- Mr David du Parc Braham  
Floor 4  
Competition Policy  
Riverside House  
2A Southwark Bridge Road  
London SE1 9HA
- A1.5 We do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A1.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views and provide evidence where you have it.

## Further information

- A1.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact David du Parc Braham on 020 7981 3856.

## Confidentiality

- A1.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk), ideally on receipt. If you think your response should be kept confidential, can you please specify what part or whether all of your response should be kept confidential, and specify why. Please also place

such parts in a separate annex or highlight the information which is confidential and provide a non-confidential version that can be published.

- A1.9 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and will try to respect this. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.
- A1.10 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/terms-of-use/>

## Next steps

- A1.11 Ofcom intends to publish consultations on its proposals in the autumn of 2015 and in early 2016.
- A1.12 You can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: <http://www.ofcom.org.uk/email-updates/>

## Ofcom's consultation processes

- A1.13 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.
- A1.14 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at [consult@ofcom.org.uk](mailto:consult@ofcom.org.uk) . We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.
- A1.15 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Graham Howell, Secretary to the Corporation, who is Ofcom's consultation champion:

Graham Howell  
Ofcom  
Riverside House  
2a Southwark Bridge Road  
London SE1 9HA

Tel: 020 7981 3601

Email [graham.howell@ofcom.org.uk](mailto:graham.howell@ofcom.org.uk)

## Annex 2

# Ofcom's consultation principles

A2.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

### Before the consultation

A2.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

### During the consultation

A2.3 We will be clear about who we are consulting, why, on what questions and for how long.

A2.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened Plain English Guide for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A2.5 We will consult for up to 10 weeks depending on the potential impact of our proposals.

A2.6 A person within Ofcom will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organisations interested in the outcome of our decisions. Ofcom's 'Consultation Champion' will also be the main person to contact with views on the way we run our consultations.

A2.7 If we are not able to follow one of these principles, we will explain why.

### After the consultation

A2.8 We think it is important for everyone interested in an issue to see the views of others. We would usually publish all the responses we have received on our website. In our statement, we will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

## Annex 3

# Consultation response cover sheet

- A3.1 In the interests of transparency and good regulatory practice, we will publish all consultation responses in full on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk).
- A3.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality where appropriate.
- A3.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
- A3.4 If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at <http://stakeholders.ofcom.org.uk/consultations/consultation-response-coversheet/>.
- A3.5 If you consider any parts of your response should be kept confidential, please ensure such information is highlighted and include reasons why this part of your response should not be published. Please also provide a version of your response that we can publish.

## Cover sheet for response to an Ofcom consultation

### BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

### CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

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

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

### DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

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

Name

Signed (if hard copy)

## Annex 4

# Consultation questions

## Scope of the review

- 1.1 *Do you agree with the proposed scope of this review, in particular the focus on wholesale call origination, wholesale call termination and interconnection?*

## Wholesale call origination

- 2.1 *Do you have any comments or views (supported by evidence where available) on the issues identified with respect to wholesale call origination?*
- 2.2 *Do you think there are other issues we should be considering with respect to wholesale call origination? Please provide evidence where available to support your comments.*

## Wholesale call termination

- 3.1 *Do you have any comments or views (supported by evidence where available) on the issues identified with respect to wholesale call termination?*
- 3.2 *Do you think there are other issues we should be considering with respect to wholesale call termination? Please provide evidence where available to support your comments.*

## Interconnection

- 4.1 *Do you have any comments or views (supported by evidence where available) on the issues identified with respect to interconnection?*
- 4.2 *Do you think there are other issues we should be considering with respect to interconnection? Please provide evidence where available to support your comments.*

## Annex 5

# Glossary

**Charge control:** A control which sets the maximum price that a communications provider can charge for a particular product or service. Most charge controls are imposed for a defined period.

**End-user:** The final consumer of a product or service – which could be a residential or a business consumer.

**Fixed Termination Rate:** The wholesale charge for fixed call termination.

**Integrated Services Digital Network (ISDN):** A type of digital telephone line service that provides up to 2 or up to 30 lines over a common digital bearer circuit. These lines provide digital voice telephony, data services and a wide range of ancillary services.

**Internet Protocol (IP):** The packet data protocol used for routing and carriage of messages across the internet and similar networks.

**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, or partially disconnected, from its network and connected to competing providers' networks. This enables communications providers other than the incumbent to use the local loop to provide services directly to the end-user.

**Long Run Incremental Costs (LRIC) or pure LRIC:** LRIC is defined as the long run avoidable cost of a CP carrying a particular increment of traffic. The increment in question is treated as the final traffic increment on the network.

**Long Run Incremental Costs Plus (LRIC+):** The long run (average) incremental costs plus an equi-proportionate mark-up for the recovery of shared and common costs.

**Metallic Path Facility (MPF):** A fully unbundled local loop allowing a CP to offer voice and data services to end users using its own equipment.

**Next Generation Access network:** Wired access networks which consist wholly or in part of optical elements and which are capable of delivering broadband access services with enhanced characteristics (such as higher throughput) as compared to those provided over already existing copper networks. In most cases, these are the result of an upgrade of an already existing copper or co-axial access network.

**Shared Metallic Path Facility (SMPF):** A shared unbundled local loop allowing a CP to offer data services via its own equipment connected to the end-user's line, but with voice services via BT equipment.

**Virtual Unbundled Local Access (VULA):** An access remedy first imposed by Ofcom in the 2010 WLA Statement that requires BT to provide access to its next generation access network in a way that is similar to LLU. It provides a connection from the nearest 'local' aggregation point (usually the local exchange) to the customer premises.

**Voice over Internet Protocol (VoIP):** The traffic method of carrying voice calls on fixed and mobile networks by packetizing speech and carrying it using IP.

**Wholesale Line Rental (WLR):** The regulated wholesale exchange line service provided by BT, both to its own downstream businesses and to competing CPs.