



TELEFÓNICA O2 UK LIMITED'S RESPONSE TO OFCOM'S CONSULTATION: ROUTING CALLS TO PORTED TELEPHONE NUMBERS

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A *Telefónica* company

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Executive summary

1. Telefónica O2 UK Ltd ("O2") welcomes the opportunity to respond to Ofcom's consultation on the routing of calls to ported numbers¹.
2. Ofcom's analysis and approach in this consultation document represents a vast improvement on the work it carried out in 2006 and 2007, and is to be warmly welcomed. In particular, O2 was pleased that Ofcom chose to discuss many of the issues, informally, ahead of the publication of formal proposals.
3. O2 notes that having considered the matter afresh, Ofcom has arrived at starkly different conclusions to the previous review. For example, Ofcom now finds (correctly, in O2's view), that, based on a more realistic assessment of the relevant costs and benefits, the routing of all UK originated calls to all ported fixed and mobile numbers would result in a *negative* net present value of more than £100m. Ofcom therefore rightly rejects such an approach in this present consultation. This contrasts with Ofcom's decision in November 2007, that operators should route traffic in this way, on the basis of the efficiency *gains* that it would generate.
4. Nevertheless, there are still some significant shortcomings in this review. Very broadly, our criticisms of Ofcom's analysis are that:
 1. Ofcom has not recognised the possibility of routing mobile originated traffic to ported mobile numbers directly, by reference to donor operators' routing information. It follows that Ofcom has failed to subject this approach to a cost benefit analysis. This is a pity, because, based on our current understanding, this method appears preferable to the direct routing of such traffic using a centralised database, which is Ofcom's current preferred option;
 2. Ofcom has made some errors in its cost benefit analysis. In particular, its model of the number of customers likely to port their mobile numbers generates forecasts which are obviously too high. As a consequence, the volume of traffic to ported numbers predicted by the model (which is a key input in the cost benefit analysis) is not credible; and
 3. in any event, Ofcom has failed to recognise that operators face capital expenditure constraints and that there would, therefore, be an opportunity cost of any project designed to give effect to direct routing. Further, in O2's view, the existence of such opportunity costs render the option of introducing direct routing undesirable.
5. Accordingly, O2 believes that the proposal to require mobile operators to route traffic to ported numbers directly by the use of a centralised database fails to satisfy the statutory tests set out in section 47 of the Communications Act 2003. In O2's view, Ofcom should not seek to amend Condition 18 of the General Conditions of Entitlement to give effect to the proposal. Instead, it needs to go back to the drawing board and address the problems identified above. O2 would be happy to continue to play a constructive role in considering the matter.
6. We set out our views in more detail in the remainder of this response. Our answers to Ofcom's specific questions can be found in the attached Annex.

¹ Routing calls to ported telephone numbers, Consultation on proposals. Ofcom, 3 August 2009.
http://www.ofcom.org.uk/consult/condocs/gc18_routing/routing.pdf



Statutory framework

7. O2 agrees with Ofcom², that the starting point for considering the regulatory approach to the routing of calls to ported numbers should be Ofcom's general and Community duties.

8. As Ofcom notes, its principal duty is to further the interests of citizens and consumers when carrying out its functions. Section 3 of the Act goes on to direct Ofcom to have regard to other factors, if relevant in the circumstances, as well. O2 is of the view that sub-section 4, which requires Ofcom to have regard to the desirability of encouraging investment, is particularly important in this matter.

9. Further, the Government has announced its intention to amend the Communications Act to make the promotion of investment in communications infrastructure one of Ofcom's principal duties alongside the promotion of competition, to meet its overarching duties of securing the interests of citizens and consumers in the provision of communication services³. In O2's view, Ofcom should be mindful of the Government's policy when considering whether investment in amending the process for routing traffic to ported numbers is merited; there is a distinct possibility that primary legislation will be amended before a decision on the issue is made.

10. O2 also notes the fourth Community requirement⁴, which requires Ofcom to carry out its functions in a manner which, so far as possible, does not favour one means of providing or making available a network, service or facility over another. For reasons that we explain below, O2 believes this duty to be pertinent to the matter in hand.

11. In addition, as Ofcom identifies, since the consultation document proposes reform of the general conditions of entitlement, Ofcom should also be mindful of the statutory provisions relating to the setting of conditions⁵. In particular, and as Ofcom notes, section 47 of the Communications Act sets out the test that must be satisfied before conditions are set or modified. Broadly, they must be objectively justified, not discriminate unduly, proportionate and transparent.

12. We discuss the application of these statutory duties and tests to the issue of the routing of traffic to ported numbers throughout in this response.

² Paras 2.27 – 2.33 refer

³ See: <http://www.berr.gov.uk/files/file52538.pdf>

⁴ Section 4(6) of the Communications Act refers

⁵ Sections 45 – 50 of the Communications Act



Alternative method of routing traffic directly

13. Ofcom sets out the background to the issue in section 2 of the consultation document. After describing the current process for routing calls to ported numbers, in paragraph 2.11, Ofcom states that:

“Technically, the alternative solution is direct routing which, in simple terms, comprises the following features.

- the originating provider identifies that the number dialled by the calling subscriber has been ported and to whom, and routes the call direct to the recipient provider as it would any other call to that recipient provider; and
- to facilitate this type of porting solution, communications providers typically maintain a common database which holds up-to-date details of ported numbers and their current providers which they can use as a source of routing information.”

14. While communications providers may maintain a common database of ported numbers, direct routing does not actually *require* a centralised database. As Ofcom itself notes in footnote 29 of the consultation document, it is possible for the originating operator to query the number range holder for the relevant routing information and, armed with this information, route the call directly to the recipient network.

15. Indeed, Ofcom had previously considered this approach in its consultation of November 2006⁶ but subsequently rejected the idea on the following basis:

“The proposal under option 4b of the November 2006 Consultation, consisting of an interim solution for the mobile industry, using NICC Service Description 8 or another standard, would not meet Ofcom’s objective of providing independence of routing from the Donor Provider in mobile networks, and would also not provide any improvement to the current solution for calls originating or terminating on fixed networks. Ofcom’s concerns about the impact of H3G’s proposal that a permanent mobile-only solution should be adopted are set out in paragraphs 4.44 to 4.46 above. Such solutions would not achieve Ofcom’s principal objective of protecting consumers from the failure of a Donor Provider. Ofcom further recognises that an interim solution may be unlikely to operate for long enough to recover its costs under Ofcom’s proposal. In light of the above, Ofcom has decided not to pursue such an option.”⁷

16. Of course, the position has changed significantly since then. At that time, Ofcom had decided that all calls to all ported numbers should be routed directly, under the acq/cdb approach. The proposal to introduce direct routing for mobile calls to ported mobile numbers, using the range holder’s routing information, was considered as an interim measure, only, to achieve some efficiency benefits. The introduction of direct routing through the ubiquitous use of acq/cdb would have rendered this interim measure redundant.

17. Now, however, Ofcom is not proposing that all calls to all ported numbers should be routed directly, but only mobile originated calls to ported mobile numbers. Accordingly, unlike the position that Ofcom adopted a few years’ ago, there is to be no central database of all fixed and ported mobile numbers.

18. Furthermore, Ofcom has also changed its position on the issue of donor provider failure. Now, it is a “second order” matter, not worthy of quantification. Indeed, Ofcom’s new position, that only mobile originated calls to ported mobile numbers should be routed directly, means that other call types to ported numbers would continue to be onward routed and, therefore, rely on donor networks.

⁶ See “sub option 4b” on page 17 of: <http://www.ofcom.org.uk/consult/condocs/gc18/gc18r.pdf>

⁷ Paragraph 4.50 of Arrangements for porting phone numbers when customers switch supplier, A review of General Condition 18; 17 July 2007. See: <http://www.ofcom.org.uk/consult/condocs/gc18review/numberportability.pdf>



19. Accordingly, the reasons for dismissing the option of routing mobile originated calls to ported mobile numbers, using range holders' routing information, have evaporated.

20. Furthermore, the use of range holders' routing information would seem to benefit from a number of advantages, over a central database approach:

1. no requirement for a central database. The most obvious benefit is that a central database of ported numbers would not be required. Ofcom has estimated that this would cost [x] and a further [x] each year in capital costs for operation in years [x]. The operational costs for the database are assumed to be [x] per annum. The total costs of building and running a central database are therefore assumed by Ofcom to be [x]. There are no equivalent costs if range holders routing information is used instead;
2. saving on porting programme office costs. Ofcom has estimated initial costs to be [x], with ongoing costs of [x] per annum. Total costs for a ten year project would therefore be [x]. Again, if range holders' information was used to route calls to ported mobile numbers, instead, then these costs would be saved;
3. operator specific capital costs. Ofcom has estimated this figure as [x] in total. Mobile operators would incur these capital costs in building the capability to update the central database with ported numbers, constructing copies of the database, and providing the capability to download the information contained on the central database, periodically. All of these costs would be saved if range holders' information was used to route calls to ported numbers, rather than a central database.

21. We recognise that O2 would face additional costs of several millions if range holders' information was used to route ported calls, because it would need to ensure that routing information, only, was provided if its HLRs were interrogated (if this additional work was not carried out, HLR interrogation could reveal commercially sensitive information and personal information regarding the customer).

22. However, O2 believes that it would face significantly lower capital costs if range holders' information was used to route calls to ported numbers, as opposed to central database. If other operators experienced similarly lower costs, the combined savings would be larger still.

23. In conclusion, O2 believes that using range holders' information to route calls to ported numbers is likely to be considerably cheaper than relying on a central database.

24. Furthermore, we see no countervailing advantage in constructing a centralised database for ported mobile numbers, compared to the direct routing of calls to ported numbers using other operators' routing information. For example, we see no advantage to new entrants of a centralised database approach, over the alternative method.

25. Of course, that is not to say there might be some advantage in relying on a central database, and it might very well be that a full, public consultation on the alternative would bring some issues to the fore. However, based on the facts as they are known to us at this stage, O2 is of the view that the routing of mobile originated calls to ported mobile numbers using information held by other operators would appear to be preferable to the construction and use of a central database.

26. O2 notes, in this regard, the following in the CAT's judgment on number portability⁸:

“where a choice exists between equally effective measures that might be adopted to address a problem, recourse should be had to the least onerous measure that will achieve the stated aims.”

⁸ In paragraph 51 of Competition Appeals Tribunal judgment on number portability, case number: 1094/3/3/08; see: http://www.catribunal.org.uk/files/Judgment_1094_180908.pdf



27. In O2's view, therefore, the failure to conduct a detailed assessment of this approach in the consultation document was a serious omission on two grounds. Firstly, it is sound regulatory practice to consider all of the practicable responses to any particular problem⁹. Secondly, as we note above, Ofcom is required to act in accordance with the Community obligations, including the requirement to take account of the desirability of not favouring one means of providing a network service or facility over another. Since Ofcom has analysed only one means of establishing the direct routing of traffic to ported numbers (using a central database) and not the other (use of donor operators' routing information), it is hard to see how Ofcom has satisfied this duty.

28. Consequently, in O2's view, Ofcom's conclusion, that mobile operators should be required to route calls to ported mobile numbers directly by reference to a central database, does not satisfy the necessary standard of being able to withstand profound and rigorous scrutiny¹⁰.

⁹ And Ofcom is required to have regard to principles that appear to represent good the best regulatory practice; section 3(3)(b) of the Communications Act refers

¹⁰ The appropriate test, set out in, for example, paragraph 49 of the Competition Appeals Tribunal judgment on number portability, case number: 1094/3/3/08; see: http://www.catribunal.org.uk/files/Judgment_1094_180908.pdf



Cost benefit analysis

29. Ofcom describes the assumptions and methodology used to construct its cost benefit analysis of direct routing in Annex 5 of the consultation document.

30. O2 welcomes the level of detail set out in Annex 5 and the transparent approach pursued by Ofcom; it is a vast improvement on the previous work.

31. In O2's view, many of the assumptions and methodology in the cost benefit analysis appear to be reasonable. However, we do have major concerns over some key inputs which, we believe, skew the results of the study. We set these out below.

Porting or donor costs

32. Ofcom describes, in paragraphs A5.13 to A5.16, how its consultants, Analysys, arrived at estimates for efficient mobile donor conveyance unit costs by reference to Ofcom's mobile call termination cost model. O2 agrees that it is reasonable to use the call termination cost model to derive estimates for unit donor conveyance costs, but notes that the model, itself, is currently being updated, for the purpose of informing Ofcom's approach to call termination. Accordingly, we believe that it would be appropriate to derive efficient donor conveyance unit costs from the *updated* model, rather than relying on the old model. In O2's view, reliance on old estimates, when it is possible to derive up to date information, could not be said to be objectively justifiable.

Volume of onward routed minutes

33. In paragraph A 527, Ofcom reports that:

“We need to forecast the volume of OR minutes through time to calculate the total cost which would be avoided by DR. One approach would have been to extrapolate OR minutes based on a simple growth projection for ported traffic. However, it is possible such an approach would miss dynamics relating to the growth in ported numbers (which we explore below). Therefore we have taken a more sophisticated approach where the forecast for OR minutes depends critically on three factors:

a) the forecast for total traffic volumes (i.e. calls to both ported and non-ported numbers) for each traffic category;

b) the proportion of people with ported numbers; and

c) calls to ported numbers which are not onward routed (including call trap and where the originator and range holder are the same operator). See discussion in paragraphs A5.36 to A5.40 below.”

34. O2 has serious reservations about this approach on a number of grounds.

35. As a matter of principle, there are many ways in which growth in onward routed minutes could be forecast, and judgement needs to be exercised in evaluating different approaches. It seems to us that a simple growth projection for ported traffic *is* a perfectly reasonable way of forecasting growth. It is not at all clear to us what Ofcom means when it dismisses this approach because “it is possible that [it] would miss dynamics relating to the growth in ported numbers”. In any event, it strikes O2 that the mere *possibility* of this alleged deficiency is no grounds to dismiss it out of hand. Extrapolation would have been a relatively simple exercise; it would have been preferable to have done it and exercise judgement in assessing the results.



36. O2 acknowledges that there are, of course, other approaches (for example, assessing the proportion of total traffic that is onward routed, and projecting the growth in both the proportion and total traffic; or Ofcom's approach, which is, essentially, a "bottom up" methodology). O2 is not necessarily advocating any particular method. Rather, our concern is that Ofcom appears to have decided, at the outset, that *one* approach, the bottom up model, is necessarily better than the others, to the point where it has not even carried out the other forecasts. Ofcom goes on to construct its model in Annex 5, using several untested assumptions, and seeks to rely on the results. Since Ofcom does not appear to have even undertaken any other forecasting approach, it follows that it is not in a position to compare the results of those other approaches.

37. In O2's view, this is highly unsatisfactory. It would have been far better to have forecast growth using more than one technique, and to evaluate the results of the different approaches. Judgement could have been exercised to give the results of one approach a greater weighting than the results of the others, if that was felt to be appropriate. The end product would have been a far more robust assessment of the growth in onward routed traffic, than the one that Ofcom presents in Annex 5.

38. O2's objection to Ofcom's approach is not abstract nit-picking. The results of Ofcom's model appear to us to be difficult to reconcile with empirical evidence. For example, the model suggests that the number of mobile customers with ported numbers will increase by 3.4% of the entire mobile base, between 2008 and 2009. That equates to around 2½ million connections (based on an active subscriber base of around 75m). However, the industry porting association, the OSG, reports that there were around 2.1 million total ports in 2008, and this includes what Ofcom calls re-ports. In addition, Ofcom reports separately that the number of mobile customers that switch has fallen recently¹¹. Hence, in our view, the number of *new* ports is highly likely to be significantly less than 2½ million in 2009.

39. This simple fact should have alerted Ofcom to the shortcomings of its bottom up approach. To appreciate the probable deficiencies, one needs only to consider the some of the key assumptions that Ofcom has had to make in its construction; why they are likely to be wrong; and the consequence of such errors. We have attempted to set this out in the table below:

Reference	Assumption	Comment	Effect
A5.29	People with ported numbers receive on average the same number of call minutes as people with non ported numbers	In our experience, proportionately more post pay customers than pre-pay customers port their number, and post pay customers use their mobile more	Potentially significant. Likely to result in over estimate of customers with ported numbers (see paras A5.36 and A5.43)
A5.52	Reporters and unporters switch provider with the same frequency as the total population of mobile subscribers	The evidence suggests that those that switch their number once are more likely than other mobile users to do so again. For instance, Ofcom estimates that 14% of mobile users switch provider in a year ¹² , and also, elsewhere, that 40% of customers have ever switched ¹³ .	Significant. Ofcom's assumption, that consumers that switch once have the same propensity to switch as the total population of mobile switchers, skews the results of the model such that it predicts a far higher level of porting than is likely to materialise.

¹¹ See figure 4.78, in The Communications Market 2009. See: http://www.ofcom.org.uk/research/cm/cmr09/CMRMain_4.pdf

¹² See paragraph A5.57

¹³ See figure 19 of Mostly Mobile: <http://www.ofcom.org.uk/consult/condocs/msa/msa.pdf>



Reference	Assumption	Comment	Effect
A5.57	Ofcom assumes that a constant proportion of subscribers switch each year	Ofcom's market research records that fewer mobile customers switched in the year ending Q1 2009, 8%, than in previous years ¹⁴	The assumption skews the model to suggest that more customers will port than empirical evidence suggests

40. In our view, the exclusive use of the model to forecast the extent of porting and, therefore, onward routed traffic for the period to 2021, has led to forecasts for mobile originated traffic to ported mobile numbers which are too high. This, in turn, suggests that the benefits of implementing direct routing, identified by Ofcom, (in terms of cost savings) are exaggerated. A simple extrapolation of O2's ported out traffic suggests that the increase in traffic to ported numbers is likely to be far less pronounced:

[<]

41. In O2's view, Ofcom needs to amend its model to reflect more realistic assumptions. It should also carry out other means of forecasting traffic to ported numbers, in order to arrive at a better informed forecast. This would enable Ofcom to derive a more realistic view of the benefits of moving to direct routing.

¹⁴ Figure 4.78, in The Communications Market 2009. See: http://www.ofcom.org.uk/research/cm/cmr09/CMRMain_4.pdf



Rationale for change, policy objective and opportunity costs

42. In section 3 of the consultation document, Ofcom sets out the rationale for its policy proposal. It describes the relative inefficiency of onward routing and seeks to explain why operators have not sought to introduce direct routing thus far. This latter point is important because, as Ofcom makes clear in section 3, regulatory intervention is justified in the presence of market failure.

43. Ofcom offers two explanations for mobile operators' failure to introduce direct routing thus far¹⁵:

1. the current wholesale interconnection pricing scheme for calls to ported numbers; and
2. the current scheme for recovering the costs incurred in onward routing.

44. In O2's view, Ofcom's analysis is unsatisfactory; the factors presented do not stand up to scrutiny. In practice, O2 believes that there have been other considerations that have led to a continuation of onward routing, and we set these out below.

45. First, though, we make the following observations on the two factors that Ofcom has identified:

1. the current wholesale interconnection pricing scheme. The argument here is that operators which receive a higher termination rate for ported in traffic, because of the commercial arrangements that support onward routing, would be reluctant to agree to direct routing.

However, as Ofcom notes, the 2G/3G operators will have identical termination rates in less than six months' time, as a result of regulation. From April 2010, H3G's rates will be about a third of a penny higher, only. This represents an enormous reduction in the differential; as recently as March 2007, H3G's termination rates were about 5ppm higher than O2's. Furthermore, there is every reason to believe that mobile termination rates will be subject to further charge controls when the present ones expire, and that the termination charges of mobile operators will continue to converge.

Accordingly, the wholesale interconnection pricing scheme will simply not be a significant issue as regards the merits or otherwise of direct routing in the timeframe that Ofcom is contemplating (ie introducing direct routing some time in 2012);

2. If O2 understands Ofcom's analysis properly, it is that failure to implement direct routing is attributable to the fact that originating operators, which cause costs associated with inefficient routing, have no incentive to adopt direct routing, because they do not actually incur the costs; donor operators and recipient operators incur the costs, but cannot influence the way in which the calls are routed.

The problem with this analysis is that it fails to recognise that operators act as originators, donors and recipients for different calls. To the extent that there are net savings to be had from introducing direct routing, rational operators have an incentive to realise them, because they do act in these different capacities, *unless* any one (or more) of them acts significantly disproportionately as a donor operator (and, even then, only if the cost of introducing the scheme are not shared in a way that reflects the benefits that the various operators would enjoy). It seems to O2 that it is only in these circumstances that one or more operator would not have the incentive to introduce direct routing. Ofcom has not presented any evidence that suggests that these circumstances do, in fact, exist.

Indeed, Ofcom appears to recognise the shortcomings of its analysis, in paragraph 3.10 ii) of the consultation document:

¹⁵ Paragraph 3.10 refers



“However, since all MNOs originate, onward route and terminate calls to ported mobile numbers, our analysis suggests that collectively they are likely to have an incentive to move to direct routing.”

Ofcom then goes on to speculate that operators might fail to co-ordinate the introduction of direct routing and that intervention might therefore be necessary. O2 does not agree with this assertion, given that operators have, in fact, demonstrated the ability to plan and co-ordinate extremely complex arrangements in order to achieve cost savings, like RAN sharing and joint ventures and, not least, the current porting process and approach to the routing of traffic to ported numbers. O2 notes that Ofcom presents no evidence that operators have failed to co-ordinate the introduction of direct routing.

46. In O2’s view, there are far more plausible explanations for the fact that direct routing has not been implemented in the UK, than the ones presented by Ofcom. We set these out below:

1. Incremental benefits of direct routing have not merited the effort. At the heart of Ofcom’s analysis is the notion that the direct routing cost benefit analysis shows a positive net present value over seven years (or ten years if some variables are adjusted). Ofcom goes on to conclude that because the NPV is positive, operators should be required to implement direct routing. The implication is that if operators behave rationally, they would introduce the change of their own accord

O2 has several comments on Ofcom’s cost benefit analysis which we set out later in this response. For now, however, it is the principle that a project which demonstrates a positive NPV over seven years should necessarily be undertaken, that we dispute.

O2 faces a capital expenditure constraint. It is simply not able to undertake all projects with a positive net present value after ten, seven or even fewer years. In practice, it must prioritise its projects and generally undertake only those which are operationally vital; payback in no more than [x]; or are strategically important (and which, in addition, should pay back after [x]).

In the case of the proposed direct routing of traffic to ported numbers, that cannot be said to be vital from an operational point of view; as Ofcom itself observes, while onward routing might not be the best means of sending large volumes of traffic to ported numbers, it does, at least, work¹⁶. Nor can direct routing be thought of as a strategic issue. As Ofcom says, it is a matter of relative efficiency. And, as we have explained above, O2 would normally undertake such projects if they were regarded as a matter of priority and, in any event, if they paid back in no more than [x].

Furthermore, O2 believes that other operators, which belong to groups that, like O2’s owners, Telefónica, must secure funds for investment in international commercial finance markets, will be similarly constrained.

Accordingly, the decision whether or not to implement direct routing is, in fact, a *relative* and not an *absolute* one. In other words, there is an **opportunity cost** if direct routing was implemented, which is the project or projects that would otherwise be undertaken. It is O2’s view that the benefit generated by direct routing would be highly likely to be less than the benefit generated by those displaced project or projects.

In any event, since Ofcom has completely failed to recognise that operators do, in fact, face capital expenditure constraints, it has consequently failed to recognise that there would be an opportunity cost if direct routing was implemented. If this is taken into account, as it should be, O2 is firmly of the view that

¹⁶ On a related point, Ofcom notes in paragraph 2.12 that most other countries have adopted direct routing for calls to ported numbers. However, Ofcom neglects to mention how many of these countries adopted direct routing when introducing number portability, as opposed to those which changed from onward routing to direct routing, as proposed in the UK. In O2’s view, only the latter category might constitute a reasonable comparator group in respect of the proposal in this consultation document.



the introduction of direct routing using a central database would not be objectively justified and that any regulatory obligation to require it would fall foul of section 47(2)(a) of the Communications Act 2003.

2. Ofcom's interest in the matter. The fact of Ofcom's earlier decision, the subsequent appeal and Ofcom's reconsideration of the matter over the last year has surely had one effect: mobile operators were hardly likely to seek to introduce any change to the current system while Ofcom was giving the matter so much thought. This is because there would have been no point in seeking to invest in direct routing in circumstances where it was clear that Ofcom was considering the issue and could arrive at a decision that might make the investment redundant. The regulatory uncertainty effectively eliminated any possibility of amending the current system, even if it was appropriate.

For its part, O2 would have been reluctant to explore the possibility of, say, introducing direct routing of mobile originated traffic to ported mobile numbers, while Ofcom was considering the wider issue of the routing of traffic to all ported numbers, following the successful appeal in the Competition Appeals Tribunal. If Ofcom had subsequently decided that, for example, all traffic to all ported numbers should be routed directly via reference to a central database containing all ported numbers, any work that O2 would have carried out on, for example, a mobile only process would have been entirely redundant.



Other issues

Second order benefits

47. Ofcom identifies a number of second order benefits associated with direct routing at paragraphs 3.19 – 3.31 of the consultation document.

48. O2 has always been sceptical of the quantum of such benefits, and we note that, even though Ofcom states that they may be potentially significant, it has not attempted to quantify them.

49. O2 remains of the view that unless a reasonable attempt has been made to quantify or assess a potential benefit, it cannot be relied upon in seeking to amend the regulatory regime.

Conclusions

50. As we have set out above, O2 believes that direct routing of mobile originated calls to ported mobile numbers would be possible by the interrogation of range holders' routing information (ie without the need for a central database). We also believe that that approach would be far cheaper than constructing and using a central database. Although, we see no significant downsides, we do acknowledge that a full and public consultation would allow other stakeholders to consider the issue in detail.

51. In our view, Ofcom also needs to correct major deficiencies in its cost benefit analysis and should acknowledge the reality that operators are capital constrained and that there would therefore be an opportunity cost if direct routing were introduced. In O2's view, the project or projects displaced by the introduction of direct routing would be highly likely to lead to greater efficiency gains.

52. On that basis, we believe that Ofcom needs to go back to the drawing board and consider the matter afresh. Certainly, Ofcom is not in a position to amend Condition 18 of the General Conditions of Entitlement, since the proposed amendment cannot be said to be proportionate or objectively justifiable. Furthermore, Ofcom would be failing in important duties if it sought to require direct routing, in particular, in its duty to have regard to the desirability of encouraging investment and in not favouring one means of implementing direct routing over another.

53. For its part, O2 would be keen to continue playing a constructive role in considering the matter with Ofcom.



Answers to specific questions raised in the consultation

Question 3.1: Do you agree that there is a problem in the way mobile originated calls to ported mobile numbers are routed? If not, why not?

No. The onward routing of traffic to ported numbers works effectively. It might not be the most efficient manner of routing large volumes of traffic, but we do not believe that the introduction of direct routing merits the necessary capital expenditure

Question 3.2: Do you agree with our assessment of the issues associated with onward routing?

In O2's view, Ofcom's assessment of the issues is far better than its previous work in this area. However, in our view it has made three broad errors: failing to assess the other means of achieving direct routing; mistakes in its cost benefit analysis; and failing to recognise the opportunity cost of the capital expenditure required to introduce direct routing

Question 4.1: Do you agree with our proposed approach for assessing the net benefit? If not please explain why not

We agree with the approach that Ofcom has adopted to consider the issue; that is, to analyse whether the benefits would outweigh the costs

Question 4.2: Do you agree that we have identified the relevant cost drivers resulting from a move to direct routing? If not please explain why not.

We agree that Ofcom appears to have identified the relevant cost drivers



Question 5.1: Do you agree with our assessment of doing nothing? If not, please explain why.

No, we do not. In O2's view, there would be an opportunity cost in investing to introduce direct routing. In our view, the project or projects that would be displaced in order to undertake such investment would be likely to generate greater benefits. Ofcom has failed to consider this opportunity cost.

Question 5.2: Do you consider that an industry agreed solution is likely to emerge that would deliver direct routing no later than 2012? If not, please explain your reasons. Would you be supportive of such a solution?

We think that this is unlikely, given the relatively small efficiency benefits that might be realised. As we note above, investment in direct routing would, in practice, displace other investment which is likely to be more productive.

Question 5.3: What steps do you consider Ofcom should take to ensure that such an industry commitment is serious? Do you agree with the proposed steps set out by Ofcom or are there additional measures that should be taken?

We do not think that Ofcom needs to be concerned about the issue, based on the current evidence.

Question 5.4: What steps do you consider should be taken to ensure that any industry solution that emerges does not foreclose the opportunity for other mobile operators to participate in the short term or longer term?

In the light of our response to the above questions, we have not answered this.

Question 5.5: If there was a firm commitment to an industry-led solution, what role would you expect Ofcom to play?

In the light of our response to the above questions, we have not answered this.

Question 5.6: Do you agree with Ofcom's proposal for a backstop to mandate direct routing in the event that an industry initiative fails? Do you agree that reviewing the situation in late 2010/early 2011 is appropriate before deciding on the need to mandate?

No. We do not believe that the statutory tests to amend Condition 18 of the General Conditions of Entitlement have been met.

Question 5.7: Do you agree with our assessment of Option (3)? Please set out your reasons.

We do not believe that option 3 would be practicable.

Question 5.8: If Ofcom was to take Option (3) forward, what would be the costs involved in (i) making changes to wholesale billing systems and (ii) other costs? Please explain the basis of your estimates.

In the time available, and given Ofcom's initial assessment, we have not undertaken an analysis of the potential costs



Question 5.9: Do you agree with Ofcom's assessment that mandating direct routing for mobile originated calls to ported mobile numbers is likely to be the most effective way of removing routing inefficiencies? If not, what other factors that we should take into consideration, and why are they relevant to our analysis?

No. We are firmly of the view that amending Condition 18 of the General Conditions of Entitlement in the way that Ofcom suggests would fail to satisfy the statutory tests set out in section 47 of the Communications Act.

Question 5.10: Do you agree that if Ofcom were to mandate direct routing, the obligation should be designed in a way that would avoid mobile operators having to use direct routing where the scale of ported traffic is not sufficient to justify the up-front investment to implement direct routing?

In the light of our response to the above questions, we have not answered this.

Question 5.11: Do you agree that by framing the obligation in a way that obliges mobile operators to route calls to mobile ported numbers in the same way as non ported traffic should avoid the risks of any unintended consequences? If not, please comment on how this obligation could best be framed.

In the light of our response to the above questions, we have not answered this.

Question 5.12: Do you agree that the obligation to provide information on ported mobile numbers should apply to all mobile network operators from the start and not just the five incumbent MNOs? Do you agree that if there is a central database of ported mobile numbers, this should contain all ported mobile numbers including those of newer entrants who would not be obliged to implement direct routing from the start?

In the light of our response to the above questions, we have not answered this.

Question 5.13: What do you consider to be an appropriate timescale for implementation of direct routing from the point at which Ofcom issues a final decision? Please provide a full and detailed explanation as to why you agree or disagree with the 2012 target date proposed by Ofcom.

[✂]



Question 6.1: Do you agree that it is appropriate for Ofcom/industry to appoint a qualified independent third party to work with industry to develop a provision technical specification for direct routing? If not, please state why.

No. For the reasons stated above, we do not agree that the routing of traffic to ported mobile numbers is in need of reform.

Question 6.2: Do you agree with the criteria for selecting an independent expert/consultancy? If not, please state what different/additional skills or qualities this independent party should bring?

In the light of our response to the above questions, we have not answered this.

Question 6.3: If you would like to recommend suitable experts/consultancies to Ofcom, please do so, on a confidential basis.

In the light of our response to the above questions, we have not answered this.

Question 6.4: Do you agree that three months is an appropriate period of time to produce a provisional technical specification from which stakeholders can derive reasonable accurate cost estimates? If not, explain why and detail what you consider to be an appropriate time scale.

In the light of our response to the above questions, we have not answered this.

Question 6.5: Do you agree that a further three months is a sufficient period of time to derive cost estimates based on the provisional technical specification? If not, please explain why and detail what period you think would be appropriate.

In the light of our response to the above questions, we have not answered this.

Question 6.6: Do you agree that the conditions we have set out as being necessary to make this process successful in its aims are appropriate?

In the light of our response to the above questions, we have not answered this.

Question A6.1: Do you have any comments on the assumptions used in the CBA?

Yes. Please see our detailed comments in the main body of our response.