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**IN THE COMPETITION**

Case Nos 1094/3/3/08

**APPEAL TRIBUNAL**

Victoria House  
Bloomsbury Place  
London WC1A.2EB

18<sup>th</sup> June 2008

Before:  
**LORD CARLILE QC**  
(Chairman)

**DR ARTHUR PRYOR**  
**PROFESSOR PAUL STONEMAN**

BETWEEN:

**VODAFONE LIMITED**  
(Vodafone)  
and

Applicant

**OFFICE OF COMMUNICATIONS**  
(“OFCOM”)

Respondent

With Interveners:

**BRITISH TELECOMMUNICATIONS PLC**  
**TELEFONICA O2 UK LIMITED**  
**HUTCHISON 3G UK LIMITED**  
**ORANGE PERSONAL COMMUNICATIONS SERVICES LIMITED**  
**T-MOBILE UK LIMITED**

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*Transcribed from tape by*  
**Beverley F. Nunnery & Co.**  
*Official Shorthand Writers and Tape Transcribers*  
*Quality House, Quality Court, Chancery Lane, London WC2A 1HP*  
*Tel: 020 7831 5627 Fax: 020 7831 7737*

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**HEARING DAY ONE**

## APPEARANCES

Mr. Tim Ward (instructed by Herbert Smith) appeared on behalf of Vodafone.

Mr. Pushpinder Saini QC and Mr. Alan Bates (instructed by the Office of Communications) appeared for the Respondent.

Mr. Aidan Robertson (instructed by BT Legal) appeared on behalf of the Intervener British Telecommunications PLC

Miss Kelyn Bacon (instructed by Miss Aoife Power, Senior Competition Counsel, Telefónica Europe plc) appeared on behalf of the Intervener Telefónica 02 UK Limited.

Miss Dinah Rose QC and Mr. Brian Kennelly (instructed by Baker & McKenzie) appeared on behalf of the Intervener Hutchison 3G.

Miss Marie Demetriou and Miss Sarah Love (instructed by Field Fisher Waterhouse) appeared on behalf of the Intervener Orange.

Mr. Meredith Pickford (instructed by Miss Robyn Durie, Regulatory Counsel, T-Mobile) appeared on behalf of the Intervener T. Mobile.

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1 MR. WARD: (recording begins): A fifth bundle that came from Ofcom, which was a slim file of  
2 some additional documents which were referred to in their defence.

3 THE CHAIRMAN: Which files?

4 MR. WARD: That is the only item

5 THE CHAIRMAN: Can I just say a word about times ----

6 MISS BACON: I have one small housekeeping matter which is that quite late last night we sent  
7 a letter to the Tribunal copied to all parties, correcting some errata in a table in the witness  
8 statement of Mr. Wardle.

9 THE CHAIRMAN: We have it.

10 MISS BACON: And also explaining that we were prepared to unredact our cost data, because  
11 otherwise we realised that it would be completely unmanageable not refer to them – during  
12 the hearing.

13 THE CHAIRMAN: Okay, we have that, thank you very much. Just a couple of things I wanted  
14 to mention. First, can I flag up a point about confidentiality issues? If there are any  
15 confidentiality issues which any party wishes to be dealt with other than in open hearing  
16 then please can we be told, and if they are to be dealt with orally it would help if they could  
17 be taken together and as a group. But, of course, we are prepared to deal with any such  
18 issues by reading material that is pointed out to us.

19 The second matter concerns sitting times, can I tell you how we propose to proceed? We  
20 will have a break at mid-morning, lunch 1 until 2. We will rise today, for reasons that I am  
21 afraid are outside the control of the Tribunal, at 4 o'clock give, but not take a few minutes,  
22 so it might be three minutes before four, but it will not be three minutes after four, so could  
23 you bear in mind – I think this is mainly addressed at you this morning at least, and  
24 possibly this afternoon. Tomorrow we will start at 10.15 and we intend to sit until about 5  
25 o'clock, though if we are near to a finish then we would happily sit on a little tomorrow,  
26 but there is no pressure on anyone, because we are going to be here on Friday anyway, so if  
27 the hearing has to go into Friday it is not a problem for us in any way whatsoever. That is  
28 not an encouragement to take your time, it is simply an indication of the sitting times that  
29 we shall have. Mr. Ward?

30 MR. WARD: Thank you, Sir. The essential premise of Ofcom's decision was that its benefits  
31 would outweigh the costs. The question for the Tribunal is whether its assessment is  
32 sufficiently robust. Vodafone's case is that it is manifestly inadequate. Ofcom's central  
33 strategy in defending the appeal has been to discourage the Tribunal from looking closely  
34 at it. It argues that its actions were all based on regulatory policy judgment and that the

1 Tribunal should be very slow to interfere with it. It also seeks to marginalise the  
2 importance of the cost benefit analysis, arguing that the decision would have been the same  
3 even if it had been negative.

4 For those reasons, I want to start with four fundamental points about the right approach to  
5 this Appeal. First, onward routing has been “an effective mechanism in enabling porting  
6 thus far”. Those are not Vodafone’s words, but of Ofcom’s words, and you can find them  
7 in the decision at para. 2.7. Of course, mobile number portability has been up and running  
8 since 1999. We do accept of course that its system is conceivably capable of being  
9 improved, but Ofcom was absolutely right to say that it should not change the system  
10 without assessing the costs and the benefits. Do bear in mind that the industry was  
11 required to introduce onward routing by the regulator itself. The mobile industry itself has  
12 spent around £50 million in doing so. That, for your note, is in Strefford’s witness  
13 statement (para. 11, vol.2, C.C.) On any view very substantial costs are going to be  
14 imposed on the industry if that existing system is torn up and replaced. But if a working  
15 system is going to be replaced, you need to be confident that the marginal gains by way of  
16 improvements are proportionate to the marginal costs.

17 The first time that Ofcom looked at direct routing it concluded that the benefits would not  
18 outweigh the costs, and this of course is the Mason Study which, for your note, is at tab 4  
19 of the Appeal bundle. That showed a minus figure of £200 million for an all calls’ query  
20 scenario for fixed networks only, it did not look at mobile networks. Of course, what has  
21 happened since then is there has been a change in the relevant technology. Time division  
22 multiplex technology is on the way out, next generation networks are on the way in. But  
23 this is why it is just not good enough for Ofcom to praise the intrinsic benefits of direct  
24 routing as if the proposal was somehow self-justifying because it is a technical  
25 improvement. The crucial issue is whether or not the improvements would actually pay for  
26 themselves.

27 In its skeleton, Ofcom criticises the network operators for not bringing about direct routing  
28 on their own. But the decision accepts, quite frankly, that the network operators could not  
29 do it unilaterally and therefore this was an appropriate subject for regulatory action. We  
30 have never challenged that aspect of the decision – for your note it is at paras. 3.8 to 3.11  
31 of the decision. We say it is really rather harsh for Ofcom to now be saying that Vodafone  
32 should have done this, as it were, on its own.

33 My second broad point is that Ofcom had specific statutory duties that meant it had to look  
34 at the costs and benefits. It can only act if certain statutory duties are satisfied. It has a duty

1 to further the interests of consumers under s.3(1)(b) of the Communications Act. It has a  
2 duty to act in a way that is transparent, accountable, proportionate, consistent and targeted  
3 where action is needed.

4 Now, Ofcom has recognised that the proportionality test means looking at the costs and  
5 benefits. It needs to show a real benefit and that the costs of bringing in the benefit could  
6 be justified. That is in para. 26 of Ofcom's skeleton, so it sees that the proportionality test  
7 requires the costs and benefits should be measured. In this case it did that through an  
8 impact assessment, because there is a statutory duty to conduct that impact assessment – it  
9 was not an optional extra for Ofcom.

10 What Ofcom says though is that even if the impact assessment was required by statute the  
11 cost benefit analysis itself was not. It says it did not need to do that at all. (Para.19 of their  
12 skeleton) But here I would like to take you for the first time to a document, which is at tab  
13 5 of the Appeal bundle, which is now bundle 1. This is Ofcom's own guidance about  
14 making an impact assessment: "Better Policy Making", issued on 21<sup>st</sup> July 2005. This  
15 guidance is, in fact referred to in the decision somewhere. It tells you what is involved in  
16 an impact assessment. What it shows in a nutshell is that it is about weighing the costs and  
17 benefits, but I would like, if I may, just to show you some key paragraphs. First, the  
18 impact assessment guidelines make clear that Ofcom has a bias against intervention. That  
19 you can find at para.1.1. In the middle of the paragraph:

20 "One of our key regulatory principles is that we have a bias against intervention.

21 This means that a high hurdle must be overcome before we regulate."

22 That, of course, is particularly important where we have a functioning and effective  
23 number portability system. Then you will see a quote below in the box:

24 "The option of not intervening should always be seriously considered. Sometimes  
25 the fact a market is working imperfectly is used to justify taking action, but no  
26 market every works perfectly while the effects of regulation and its unintended  
27 consequences may be worse than the effects of the imperfect market."

28 Then it says at 1.3: "Impact assessments are also useful tools to review existing  
29 regulations, they provide a framework for weighing up the cost and benefits." That theme  
30 is reiterated further on in the document. At 1.7 over the page it recognises that what is  
31 required in an impact assessment may vary according to the subject matter. In these  
32 guidelines we say:

33 "We expect impact assessment to be carried out in relation to the great majority of  
34 our policy decisions, this is a significant commitment but in carrying out impact

1 assessments we will be guided by the principle of proportionality. This means a  
2 decision which is likely to have a wide ranging impact and/or impose substantial  
3 costs on stakeholders will have a more comprehensive impact assessment than a  
4 decision with a less significant impact.”

5 Of course, we say this is a case very much at the end of the line of wide-ranging impact  
6 and substantial costs. It then reminds itself at 1.9 that it is under a statutory duty not to  
7 impose burdens which are unnecessary, and that arises under s.6 of the Act. Then, over the  
8 page at p.6 of the document, it says: “What is an impact assessment?” “An impact  
9 assessment is an essential part of considering different options for regulation.” Then there  
10 are three bullet points as to what it will involve, and the key is really the third one:

11 “Identify and where possible quantify the costs and benefits flowing from the  
12 impact which each option would have.

13 Then at 5.24, which is at p.16 of the document:

14 “Ofcom’s regulatory principles will play an important part in making our  
15 decisions. Our bias against intervention means there must be a clear case for  
16 regulation and the prospective benefits should exceed the costs. If a case for  
17 regulation can be made we will choose the least intrusive means.”

18 Then, in the next paragraph: “Choosing the best option will involve an assessment of the  
19 costs and benefits.” Then if one reads further on, I will not take you to any more  
20 paragraphs, there is more and more detail about how the cost and benefit analysis should be  
21 done. I am really making a short point here, the cost benefit analysis in this case was not  
22 an optional extra.

23 My third opening point is that the cost benefit analysis is actually the fundamental premise  
24 of everything that follows. This is very important because a key strand in Ofcom’s defence  
25 is to minimise the significance of the cost benefit analysis. If you look at this Ofcom  
26 skeleton argument, which is in bundle 3 tab D, p.1, para.2. it says:

27 “Primary amongst these objectives was the need to protect consumers from the disastrous  
28 consequences of network failure arising from the insolvency of an operator.”

29 Then over the page, para.3, the last three lines of the paragraph, they talk instead about  
30 network failure and raise the spectre of Enron, Railtrack and Northern Rock, that was  
31 Ofcom’s primary motivation for mandating the changes which Vodafone and its supporters  
32 seek to derail or substantially delay by this Appeal. So it says in effect that this was all  
33 about the risk of network failure. Now, there is absolutely no doubt the network failure

1 was indeed a crucial part of this decision, but it is important to look at what its actual  
2 structure was as decided at the time.

3 Could I ask you to take up again the notice of appeal bundle?

4 THE CHAIRMAN: Forgive me for interrupting you, but the paragraphs from Ofcom's skeleton  
5 that you have just referred to I had highlighted when first reading them, and I think the  
6 Tribunal is going to be assisted by all counsel in knowing how we are to inquire into the  
7 possibility or probability of network failure, and where we find the evidence not of past  
8 network failure but of future potential network failure, given that the industry has matured  
9 and changed significantly since the past network failures which are mentioned in the  
10 documents.

11 MR. WARD: Sir, you are anticipating our submissions, and the answer is not in the decision.

12 May I show you the actual structure of the decision Ofcom took and which is under  
13 challenge. The starting point, please, is at p.9 of the decision document which is, of  
14 course, under tab 1 of the appeal bundle. I would like to show you para.2.7 because this  
15 identifies two objectives of Ofcom's action. If I may pick it up in the fourth line, it says:

16 "The process is termed 'onward routing'. Although onward routing has been an  
17 effective mechanism in enabling porting thus far ..." which I have already read to  
18 you. "Ofcom has identified a number of concerns with the use of onward routing  
19 as the basis for future porting. Specifically:

- 20 \* Subscribers who port their number remain vulnerable to possible  
21 failure of their former provider.
- 22 \* The double handling of such calls is inefficient as it generates  
23 additional network traffic and transmission costs which, ultimately, are  
24 passed on to consumers."

25 Those, of course, are the costs which form the basis of the cost benefit analysis. Turning on  
26 a few pages to para.3.19 which is at p.19, here we see that Ofcom ties its objectives to the  
27 cost benefit analysis.

28 "Ofcom considers that the risks to consumers of failing networks are material  
29 and, given Ofcom's statutory duties and powers, Ofcom should act to address  
30 these risks where it is consistent with its other duties to do so (for example, that  
31 this can be done at reasonable cost and in a way that reflects the need to act  
32 proportionately)."

33 So very important recognition there that costs and benefits have to underpin its decision.

34 Turning back, if I may, to p.4 of the decision there is an absolutely core finding. 1.9:

1                   “Ofcom has concluded that the costs of deploying this solution will be outweighed  
2                   by the benefits if direct routing is implemented along with next generation  
3                   networks ...”

4                   So it is fundamental to the decision costs would be outweighed by the benefits, and only  
5                   then could one start talking about whether or not network failure was or was not a justified  
6                   consideration. You will see, if I may complete the picture, para.3.50 at p.25. This is  
7                   Ofcom’s conclusion under the head of “Cost benefits analysis of onward routing”.

8                   “Ofcom recognises that there is uncertainty about the costs of establishing and deploying  
9                   ACQ/CDB, particularly the costs faced by individual communications providers ...

10                  Provided that the CDB is deployed in conjunction with deployment of next-generation  
11                  networks, it is Ofcom’s view, informed by the feasibility study conducted for Ofcom by  
12                  Sagentia, that the costs are offset by savings to industry under a wide range of scenarios,  
13                  including those where the capital costs are increased by 70% relative to the Base Case.  
14                  Furthermore, this assessment of, at worst a neutral NPV for industry is achieved before any  
15                  account is taken of the benefits to consumers in terms of security of service in the event of  
16                  donor failure, which is one of the objectives of this intervention.”

17                  So coming back to your question, Sir, there is no attempt by Ofcom at all to quantify the  
18                  protection of consumers from risk of network failure, none whatsoever. But, what they say  
19                  instead is that we have conducted cost benefit analysis of these quantifiable questions of  
20                  what the cost and benefits to the industry would be in respect of direct routing.

21                  So what we have in effect is a quantified limb, namely costs are offset by the savings, and a  
22                  totally unquantified, further consideration about donor network failure.

23                  Now, in our submissions we have challenged both limbs, but the crucial point to make here  
24                  is that one cannot succeed under the head of donor network failure if the cost benefit  
25                  analysis fails. If you accept our submissions about that, the unquantified factor simply  
26                  cannot stand on its own. We have already seen that Ofcom is required to look at the costs  
27                  and benefits. It has structured its decision around an assessment of those costs and benefits.  
28                  If it got it wrong, it has got to go back.

29                  I want to show you, if I may, what they have now said about this in their skeleton  
30                  argument. That is back in Bundle 3 at Tab D. There is an attempt to back away from that  
31                  conclusion. At p.3, para. 6, could I ask you to read the last six lines?

32                         “Even if the prediction [i.e. the cost benefit analysis] had been negative, that  
33                         would not have ruled out direct routing since Ofcom would then have considered  
34                         whether the likely net costs to industry were of an order that could be justified as

1 proportionate in order to protect against the network failure risk. But since Ofcom  
2 considered that the pure financial benefits were in fact likely to exceed the costs,  
3 the decision to mandate direct routing was plainly justified.”

4 So, here, Ofcom is, in a sense, presenting a counter-factual, and is saying, “Well, we could,  
5 of course, have considered it even if it had been negative”. That, of course, begs two  
6 questions. One is: How negative? The other is: What would your judgment have been in  
7 those circumstances? Because the judgment that they actually made was that it was  
8 positive and therefore justified, and that is the judgment which is under challenge in this  
9 appeal.

10 It is worth looking at para. 28 of the skeleton as well. Over the pages, Ofcom’s position  
11 actually hardens. That is at p.20 of the skeleton pagination. Can I take you just to the last  
12 four lines of that paragraph?

13 “Had the financial predictions revealed that the CBA was flat or neutral, or even  
14 possibly negative, the decision would still have been justified on overriding  
15 policy grounds”.

16 So, at para. 6 it says, “Well, we would have had to think about this”, but by para. 28 it is  
17 now an assertion that it would have been justified anyway.

18 What we say about that is that this is, in a sense, an attempt to re-write history. What  
19 actually happened was that Ofcom decided it was positive, and on that basis concluded that  
20 regulatory intervention was justified. I remind you that the relief we are seeking here is  
21 effectively remittal back to Ofcom. So, it is not the case that we are asking you, the  
22 Tribunal, to decide, “Is it positive or negative? Would it be justified even if it was  
23 negative?” The question is only whether the finding that was made is sufficiently robust.  
24 But, you cannot somehow rescue the case by saying, “Ah, well, the cost benefit analysis  
25 simply makes no difference. We would have decided it the same way anyway”. Of course,  
26 most glaringly, the question that that raises is, “Well, how negative would it have to be?”  
27 If it is £500 million negative, or, rather £200 million, like the last time they looked at it,  
28 presumably it is not going to be done. If it is less negative, that may be a factor. You, the  
29 Tribunal, simply do not have to decide. All you have to decide is whether their approach  
30 was sufficiently robust.

31 There is a second sense in which the cost benefit analysis is a critical premise of everything  
32 that follows. There are two limbs, in effect, to the decision. There is the decision that  
33 requires direct routing of ported calls, and then there is a further decision to mandate  
34 recipient-led two hour porting - in other words, the changes to the process of porting. But,

1 it is crucial to understand that the recipient-led two hour porting decision was itself  
2 premised on the existence of direct routing. That is made clear both by the decision and  
3 the defence. Perhaps just to save time I will give you the references: para. A1.64 of the  
4 decision; in the defence, para. 36. So, it is completely common ground that you only get  
5 on to recipient-led two hour porting if you conclude that the system of direct routing is  
6 itself justified. The reason for that is that Ofcom thought that the central database would  
7 basically deliver recipient-led two hour porting. We will get on later to why that is actually  
8 wrong, but that was the building block in Ofcom's decision. Of course, the building block  
9 of the decision on direct routing was the cost benefit analysis.

10 So, once again, if we are right about the cost benefit analysis, the whole edifice falls. The  
11 decision on recipient-led two hour porting has to come down as well.

12 Having said all that, there is actually separate impact assessment for recipient-led two hour  
13 porting as well. We will look at that in the decision in due course. Ofcom did actually  
14 make some attempt to assess the costs and benefits separately of that part of the decision,  
15 and for reasons that I will come to, that assessment is also in our submission hopeless. But,  
16 in a sense it does not matter. In a sense it is a luxury item in my appeal to even have to go  
17 that far because if the cost benefit analysis on direct routing is flawed, then the whole thing  
18 comes down.

19 The fourth of my introductory points is that this is an appeal on the merits. That is  
20 expressly stated in s.195(2) of the Act. But, time and time again, in the course of its  
21 submissions and in its defence, Ofcom essentially appeals to its regulatory discretion and  
22 tries to discourage the Tribunal from looking too closely at what it means and what it has  
23 done, and saying, "We have all sorts of margins of discretion here". There has been a lot  
24 of argument before the Tribunal about what 'appeal on the merits' means in this context.  
25 But, that argument is now settled, and it is settled against Ofcom by the Tribunal in May of  
26 this year in the H3G case. Can I just show you very briefly the relevant passage in Bundle  
27 4, the authorities bundle.

28 THE CHAIRMAN: It is actually Bundle 13, Volume 4. In fact, everyone has very helpfully  
29 flagged the relevant parts of the authorities.

30 MR. WARD: Tab 17. There is indeed a flag on the part that we need for this purpose. At p.66 of  
31 the judgment. The appeal, in very broad terms, was brought by H3G against Ofcom's  
32 decision to impose price controls on it in respect of mobile termination charges. I just want  
33 to show you para. 161 because it shows you the sort of argument that H3G were running  
34 does have at least a degree of similarity to the argument we are running here in terms of its

1 form. “Part of H3G’s challenge to the 2007 Statement as regards the Appropriate Remedy  
2 Issue was expressed in terms that arguments put forward by H3G to Ofcom in response to  
3 the consultation document were not adequately investigated by Ofcom and that the reasons  
4 set out in the 2007 Statement for rejecting them were not explained in sufficient detail. In  
5 taking us to the passages in the 2007 Statement where Ofcom had dealt with H3G’s  
6 objections to the proposed price control, H3G argued that Ofcom should have undertaken  
7 much more analysis.”

8 THE CHAIRMAN: If I can help you, I certainly have read para. 164 prior to the hearing, and I  
9 think that is where you are aiming.

10 MR. WARD: That is where I am headed, sir. Exactly so. I just simply make the point - and I will  
11 not read any more - that there is an element of similarity in the argument. It is not quite the  
12 same because H3G’s challenge was much more of a reasons challenge – in other words, is  
13 the decision document adequately reasoned? Ours is more a challenge on substance, but  
14 the crucial point is that the Appeal was brought under precisely the same section of the  
15 Communications Act, and we know now that the test is whether it can stand up to profound  
16 and rigorous scrutiny. That is the test. It is not a judicial review test. You do not have to  
17 consider whether it is a *Wednesbury* unreasonable decision. It is much more intensive than  
18 that. It is striking that Ofcom did not refer to that decision anywhere in its skeleton  
19 argument. What it did instead was recycle some old judicial review case law, which may  
20 well properly state the test in the judicial review court, but not in this Tribunal under this  
21 section of the Communications Act.

22 As I have already said, review on the merits in this particular case does not mean that the  
23 Tribunal has to decide whether or not net present value would be positive or negative, or  
24 whether or not onward routing really does provide a risk of donor network failure, or any  
25 of those questions of substance. The relief we seek is for the matter to be remitted to  
26 Ofcom so that it can carry out a reassessment of those questions itself.

27 Nor does our appeal amount to saying that there is only way that these things could be  
28 done, and as Ofcom rather seems to suggest that if you deviate in any way from  
29 Vodafone’s preferred view of the world you have made an error of law. We do not say that  
30 at all. What we do say is that the question for the Tribunal is simply whether the cost  
31 benefit analysis, which was the foundation of all that followed, was sufficiently secure.  
32 Was Ofcom right to conclude that that analysis could be trusted, or should it have done  
33 more?

1 One final point under this head is that another way that Ofcom seeks to minimise the extent  
2 of the Tribunal's scrutiny is to say that this was all an exercise in prediction, and of course  
3 there will be disagreement when you are engaged in prediction. For your note, one of the  
4 places it says is in para.5 of the skeleton. That is obviously correct as far as it goes. The  
5 prediction is very, very important in this case because costs and benefits are analysed  
6 through to 2018. We recognise that that is difficult, but that does not somehow absolve  
7 Ofcom from the need to do it properly. It actually has the opposite effect. If you are going  
8 to project costs and benefits over such a long period in such uncertain circumstances there  
9 is all the more need for care in the cost benefit analysis, and all the more need to ensure  
10 that the empirical data that goes in at the beginning is as robust as possible. In our skeleton  
11 we set out various authorities for that proposition from this Tribunal, from the European  
12 Court of Justice and from the Irish Telecommunications Panel. I will not take you to them.  
13 In other words, it is not a way of saying that the Tribunal should step back from the  
14 assessment as Ofcom rather says. It is a factor that points to the need for more intensive  
15 scrutiny, not less.

16 Those are my four points by way of general observation about the approach to the Appeal.  
17 Before I get on to the detail of the arguments, I also want to briefly touch on three points  
18 that we made at the beginning of our skeleton argument which are ways in which the  
19 decision could and should have been made more robust than it was. The first way was  
20 through the use of a thorough sensitivity analysis. You will have seen this theme recurring  
21 through both sets of pleadings.

22 One of Ofcom's constant refrains in the case is that the exercise it was conducting was  
23 uncertain. The whole point of sensitivity analysis is to take account of that uncertainty.  
24 When you have a value which is hard to determine exactly – a future looking value, for  
25 example – what you need to do is test against a plausible upper and lower band. We have  
26 criticised the adequacy of the sensitivity analysis in some detail in the evidence, and I am  
27 not going to go through that now.

28 What is useful to consider is Ofcom's actual response to this argument, which is at para.29  
29 of its skeleton. That is bundle 3, tab D:

30 "Vodafone's claim that Ofcom was obliged to apply further sensitivity analyses to  
31 its figures is not only unfounded in authority, but also amounts to an assertion that  
32 Ofcom should have gone through the motions of carrying out an empty exercise of  
33 applying more extreme assumptions to the CBA even if Ofcom did not consider  
34 that to do so would assist it in making its decision."

1 The first point there about authority is really nothing to the point at all. I cannot point you  
2 to an authority that says in all circumstances regulators are obliged to carry out a sensitivity  
3 analysis. The authority that we rely is that this cost benefit analysis has to be able to  
4 withstand profound and rigorous scrutiny. Sensitivity analysis is one way of making sure  
5 that it can.

6 There is actually authority of a kind in Ofcom's own Guidelines on Regulatory Impact  
7 Assessments, and those Guidelines are in the appeal bundle – we have already looked at  
8 them once – at tab 5, p.17. It is the second bullet from the end:

9 “Where there is significant uncertainty about the impact of an option, it is good  
10 practice to present an analysis of the sensitivity of the results to changes in some  
11 of the most important variables. This should help ensure that the Impact  
12 Assessment and the final policy decision are more robust.”

13 Vodafone could not agree more with that proposition.

14 Over the page there is a further bullet point under “Quantifying Costs and Benefits”, the  
15 third bullet point:

16 “Where costs and benefits cannot be quantified precisely, we should aim to give  
17 broad estimates e.g. in the order of £X million, or ranges of costs and benefits e.g.  
18 between £X million and £Y million. It is also helpful to form an idea of the  
19 relevant size of the respective costs and benefits. As a minimum, costs and  
20 benefits should be described qualitatively.”

21 So the Guidelines say exactly what we have said in our submission, that sensitivity testing  
22 is very helpful indeed where you face uncertainty.

23 It is not an empty exercise in this case because actually what it shows is just how readily  
24 the net present value that is said to be positive can disappear. Can I take you to the  
25 decision, which is in the same bundle, tab 1, p.64. This is the only sensitivity analysis  
26 contained in the decision, and you will see that the top line is the July 2007 base case,  
27 which showed a cumulative NPV of £66 million; and then the 2007 base case, which is in  
28 effect the decision, shows a net present value of £40 million in the right hand column. By  
29 common consent that figure has now fallen to £38 million, because Ofcom have accepted  
30 that they totally overlooked the fact that the mobile operators would incur costs in running  
31 the core database. Thus, in the pleadings it is common ground. So you can write 38 in the  
32 column next to 40.

33 Then there is a base case in respect of variation in the number of parties which have a call  
34 trap, which we have dealt with in our pleadings. I will not detain you with that.

1 Then Sensitivity 2 is as November 7<sup>th</sup> base case above but increasing capex by 70 per cent.  
2 That shows a figure of £2 million against which you can write nil, because we have lost  
3 that £2 million now.

4 I am going to go in some detail into the question of how much this capex can vary, but I am  
5 really making a separate point at this point, which is that this so-called sensitivity test is, in  
6 fact, not a sensitivity test at all. If you read what Ofcom says about it it is actually a stress  
7 test. If you look at the paragraph below, picking it up in the fourth line, it says:

8 “Sensitivity 2 tests the extent to which forecast capital costs could increase ...  
9 without the costs to industry exceeding the savings to industry.”

10 In other words, how far could we increase it without getting a negative NPV. It says:

11 “As illustrated, those costs could increase by 70% while maintaining an, at worst,  
12 neutral NPV.”

13 So it stress tests its figure and says it can go up by 70 without pushing us into the negative.  
14 But there really are two points to make about this. First, what this shows is any further  
15 increase at all in any variable – any variable – that is adverse to Ofcom will push it into the  
16 red. Yet, almost nothing has, in fact, been sensitivity tested. But secondly, as I have said,  
17 this is in truth a stress test not a sensitivity test. This is not the case where Ofcom has said  
18 that the worst case that we can reasonably foresee is a 70 per cent. increase in the CAPEX,  
19 but that is okay, because we will stay positive, it said if we increase by 70 it still stays  
20 positive but actually Ofcom do not know whether the upper bound is 60, 70, 80, 180 per  
21 cent – there is no reasoning to suggest that 70 is about the worst that could be reasonably  
22 expected.

23 PROFESSOR STONEMAN: Can I just interrupt there? A query on CBA. There are two ways  
24 to deal with uncertainty in CBA, one is as you suggested trying different figures. The other  
25 one is that you set the discount factor higher to allow for the uncertainty.

26 MR. WARD: Yes.

27 PROFESSOR STONEMAN: Do you have any comments on the discount factor used in the  
28 analysis?

29 MR. WARD: No, it was the subject of discussion through the consultation process, but we have  
30 not sought to appeal in that respect. I see, of course, the force of your point, but it certainly  
31 has not been suggested by Ofcom that that was seen as some sort of proxy for actual  
32 costing that could have reflected the underlying analysis.

33 PROFESSOR STONEMAN: Except to the extent that the discount factor reflects the cost of  
34 capital?

1 MR. WARD: Yes.

2 PROFESSOR STONEMAN: And will reflect the amount of uncertainty.

3 MR. WARD: Yes, well I see the force of the point, but of course the decision includes both  
4 elements.

5 Now, we say in essence that if there had been a reasoned assessment of how far the costs  
6 might deviate from the norm, then there could have been sensitivity testing, and one could  
7 have determined whether one could be reasonably confident that the MPV would remain  
8 positive, but the reality is that most of the variables have not been tested at all and the one  
9 variable that has been tested simply has not been tested against any real world assumptions.  
10 In our evidence Mr. Roche has worked through a lot of other permutations and I am not  
11 going to take you through that now, but what they serve to show is that further small  
12 changes can, in fact , plunge this decision quite dramatically into the red. Ofcom's  
13 response to that is really to complain that Mr. Roche has only subjected it to negative  
14 testing and, of course, sensitivity testing could be positive or negative. That is, of course,  
15 right, but what we are trying to see is whether or not the claimed positive figure is secure –  
16 if it is even more positive, so be it. Ofcom, of course, has done neither.

17 Now, the second point by which generalisation about the appeal, and why it lacks  
18 robustness is about the absence of any technical specification by Ofcom for the matters that  
19 it required industry to do. This is particularly important because the foundation of the  
20 decision is a cost benefit analysis. Ofcom wanted to find out whether the costs would  
21 outweigh the benefits, or vice-versa. In order to know what the costs are you have to know  
22 what you are costing; it is just elementary. So if I ask: "How much is a car?" or "How  
23 much is a house?" the first question you ask is "What kind of car?" "What kind of house?"  
24 "How big an engine?" "How many bedrooms?" It obviously impacts upon the cost. What  
25 Ofcom did was essentially to make a bare direction to the industry, go away and make this  
26 happen, you work out the details later. Actually, to a very significant extent the details are  
27 still being worked out and there are still large cost elements that are undetermined. Just for  
28 your note, Mr. Sutherns' witness statement at para.33 summarises some of these points,  
29 and there are references to others in the statements of the interveners.

30 Ofcom has an answer to this in its skeleton argument, if I may ask you to take that up  
31 again, which is at bundle 3, tab D, p.25, para.38. It says:

32 "Ofcom did not consider that it was appropriate for it to seek to design, and to  
33 then consider imposing on industry, a detailed technical specification for direct

1 routing. Industry participants are considerably better placed than Ofcom to  
2 develop such a specification.”

3 Then going down three or four lines:

4 “By not laying down a detailed technical specification, Ofcom has left the way open for  
5 industry to develop the technical solutions ...”

6 So in other words it says: “You know how to do it, and you will work this out later”. Now,  
7 to some extent this is an admission that it really does not know, and it says “only you  
8 people in the industry really know, not us”. But of course, what we say about that is it  
9 really would have been a good idea to ask for the industry’s help before, rather than after,  
10 deciding it would do it. The reason why that really matters in this case of course because  
11 the whole decision is premised on costs and benefits, and if you cannot work out the costs  
12 without knowing what you are costing it is simply not sensible to say: “We have already  
13 decided the costs are outweighed by the benefits, now go away and design the solution.”

14 That may or may not be sensible in other contexts, but it cannot be remotely sensible in this  
15 one. It also says: “If we had asked you to do this ...” (para.39 of the skeleton) “... you  
16 would have had to incur some costs in working out the solution, so no doubt you would  
17 have complained about that too.” But obviously it is far better for the industry that is  
18 having to work out these costs now when the decision has already been taken which may or  
19 may not find out very bad news about what those costs may amount to - it is much better to  
20 work those out in advance and then have a reasoned decision as to whether or not it will  
21 benefit the industry overall.

22 The pitfalls of this whole approach, this absence of specification are made absolutely clear  
23 by the Sagentia report on capital expenditure, which I am going to come to in detail very  
24 soon, but I do want to show you that this problem was a problem in practice for Sagentia, it  
25 is not just theoretical. Sagentia’s report is at tab 8 of the notice of appeal bundle. The top  
26 document is the Ofcom consultation document of 16<sup>th</sup> November 2006. The Sagentia  
27 report is actually an annex to that document, and there is internal pagination for the Ofcom  
28 document, and if you follow it through to p.39 there is Sagentia’s report.

29 **THE CHAIRMAN:** Sorry, we are given bundles which we keep at home, as it were, and we are  
30 given bundles when we get here, that is why we are slightly floundering between bundles.

31 **MR. WARD:** I hope you have it as we will be spending a little time on it. So the Sagentia  
32 report, which is about – among other things – the capital costs of the proposal. If you  
33 could turn to p.61, it is now internally numbered at the bottom of the page. The last three  
34 paragraphs are about costs of next generation networks. Sagentia says:

1 “Cost information for implementing a CDB solution in NGNs has been difficult to obtain,  
2 although all future NGN operators believed that these costs are significantly lower.”

3 Then in the next paragraph:

4 “For future NGN implementations, cost information is not really known due to lack of  
5 specific implementation experience and uncertainty over aspects of implementation”.

6 Then if you turn to p.72. This is a section headed ‘Observations’. It says at para.14,

7 “Cost benefits of a new solution and incentives to move from the current system.

8 The operators gave us no information on costs. One reason stated for this was

9 they did not know what they should be costing as there is no direction to introduce  
10 a new system”.

11 Then, at p. 69, just to turn back, what Sagentia says in the second paragraph, under ‘Cost  
12 Benefit Results’ is,

13 “Industry needs directives to agree a common approach so that the costs can be  
14 estimated”.

15 So, this problem that I have been talking about was practical, not merely theoretical. One  
16 is bound to feel a degree of sympathy for Sagentia, because it was placed in a position  
17 when nobody was able to talk intelligibly to it about costs because they did not know what  
18 they were costing. In our skeleton argument at para. 70 we have included detailed  
19 references to where, in Vodafone’s consultation responses it made this point over and over  
20 again. I am not going to take you through it. But, it made the obvious point that even if you  
21 are asking us for cost information, if different operators are costing different things, you  
22 just cannot read it across. It all depends on what assumptions they are making about the  
23 system that they are costing.

24 We have seen now from O2’s evidence that it was also saying very much the same thing.  
25 Our short point here really is that if Ofcom had at least gone some way towards working  
26 out the specification, even in outline, or even with options, then it could have gone a lot  
27 further towards knowing what the upper and lower bounds of costs might turn out to be.  
28 We are not saying that a fully detailed specified system had to be fully costed and fully  
29 worked out down to the last detail. Even an outline specification would have substantially  
30 reduced the uncertainty inherent in this decision.

31 PROFESSOR STONEMAN: May I ask you: this was the date of that report. Since that occasion  
32 Vodafone, amongst others, has had examples of introducing recipient-led two hour porting  
33 in Ireland, for example. So, you should be able to answer these questions quite precisely  
34 now; is that correct?

1 MR. WARD: No, sir, because it actually depends on exactly what it is you implement. To take  
2 that example in itself, we will see later, when we get to look at Mr. Sutherns' evidence, that  
3 there are crucial decisions that have to be taken in respect of how recipient-led two hour  
4 porting is implemented in respect of the question of how you authenticate a request by a  
5 customer who walks into a shop and says, "I want to port this number over". There are  
6 different ways of doing it. Are you going to have bilateral communications between the  
7 operators, or is there going to be what is described rather loosely as an 'intelligent hub' - a  
8 kind of all-in-one communications centre? The kind of decisions that are made about this  
9 have a massive impact on the outcome in terms of costs. On that particular issue - at least  
10 as at the date of the evidence - there was still an unresolved issue because there was, in a  
11 sense, a conflict between smaller and larger operators as to whether this was desirable.

12 PROFESSOR STONEMAN: But it is the case now. That was November 2006. We are now June  
13 2008. You have gone through the process in Ireland. So, you ought at least to be able to  
14 cost out for Ofcom repetition of the Irish situation, and put a number on that - as indeed  
15 H3G ought to be able to do.

16 MR. WARD: Yes.

17 PROFESSOR STONEMAN: So, that uncertainty would no longer -- Well, those numbers could  
18 then be subject to some sensitivity, but what I am saying is that if one were to do this  
19 exercise again, then the knowledge that you have would enable a much more precise  
20 specification than was possible in November 2006. Is that correct?

21 MR. WARD: I accept that. I accept that. What Ofcom could do, if the decision is remitted, is to  
22 say, "Well, let's start with what's been done in Ireland, and let's hear whether you think it  
23 is a good idea or a bad idea, whether there are features of the UK market that would make  
24 it more expensive or less expensive". That would be perfectly sensible on the face of it. I  
25 do not know what my clients will say. I will ask them at lunchtime. But it sounds perfectly  
26 reasonable.

27 PROFESSOR STONEMAN: I am thinking more that Ofcom would say, "What did it cost you?"

28 MR. WARD: Yes. Well, that would be a perfectly good question."

29 PROFESSOR STONEMAN: And, "What benefits did you get from it?" That is the sort of  
30 information that you require.

31 MR. WARD: We must never lose sight of the fact that Ofcom has a specific statutory power to  
32 require relevant information. One of the themes, in our submission, is that it did not use it -  
33 - or at least it did not use it very sensibly. So, of course that is right. But, as a consultee on  
34 this rather broad consultation, all Vodafone can do is to say, "Well, hang on a minute!

1 We're really worried about this. We don't know what the assumptions are that underlie  
2 this. Our individual experience may, or may not, be relevant". I have not taken up time  
3 with it, but I do invite the Tribunal to look at Vodafone's consultation responses - not least  
4 because they will show you that the complaints we are making here are not *ex post facto*  
5 points dreamt up by lawyers. These were Vodafone's concerns all the way through. But, if  
6 Vodafone, on its own, posted some figures and somebody else (like H3G) post another set  
7 of figures, it is just not sensible to say, as H3G actually does, "Well, you can sort of split  
8 them down the middle and there's your figure". It just all depends on what you are costing.  
9 What Ofcom has done here is really put the cart before the horse. It has said that the costs  
10 are outweighed by the benefits before deciding what it is that is being costed. We say that  
11 is a fundamental error in its approach.

12 Can I turn to the third of my points before I finally get on to the actual substance of the  
13 points in the case - consultation. This is another way in which we say that the rigour of  
14 Ofcom's conclusions could have been significantly increased I will take this point very  
15 quickly.

16 What is the point of consultation? The point is that the people affected have an opportunity  
17 to be heard as to what they think of the merits of the proposal, and how they will be  
18 affected. But it is not just that they can say that; it is so that the decision-maker can listen.

19 THE CHAIRMAN: There is clear authority on this point.

20 MR. WARD: It is trite law, sir. What else would it be for, one is tempted to say. The idea is that  
21 the decision-maker's decision might be informed by the consultation. It is not supposed to  
22 be an empty exercise. Here the consultation was required by statute in two respects: there  
23 had to be a specific consultation on the impact assessment itself. It is all set out in our  
24 skeleton argument. I will not take time with it Now, here, the people most immediately  
25 affected were obviously the network operators. Some decisions impact more generally on  
26 the public at large, if you like at first instance. But, this was essentially a technical question  
27 about internal arrangements within the industry. So, the network operators were very well-  
28 placed to comment and comment in detail.

29 But, to comment on the detail, they had to see the detail. The difficulty is that Ofcom's  
30 decisions, and its consultation documents, are, in substantial part, obscure. I would invite  
31 you to read - not now - Mr. Roche's second witness statement at paras. 48 to 52 where he  
32 explains how Vodafone spent a great deal of time and energy back-solving (to use his  
33 word) the inputs from various spreadsheets that they managed to extract from Ofcom after  
34 the consultation document was published, and, indeed, after the decision was published.

1 Now, Vodafone has done all that work. We will hear in cross-examination whether or not  
2 Ofcom thinks it got it right. I am not in a position to say one way or the other. But, the  
3 crucial point is only this: all of that work should not have been necessary. We had expert  
4 industry consultees here who were critical to the process. Vodafone has done all the work.  
5 Others may well not have, but without unravelling the assumptions it is really very, very  
6 difficult indeed to coherently assess whether or not the cost benefit analysis has been done  
7 properly. When you are considering the merits of this appeal, a perfectly valuable exercise  
8 in my respectful submission is just to read the consultation documents through that lens,  
9 and ask yourself whether or not you can fairly understand the underlying assumptions and  
10 the key building blocks of a cost benefit analysis. The plain answer is, “No”.

11 Now, Ofcom makes two points in its defence here. Firstly, it says, “Well, Vodafone was  
12 able to make detailed submissions. So, what is the complaint all about?” The short answer  
13 to that is, that is no help at all to all the other consultees. This wasn’t a consultation of  
14 Vodafone, this was a public consultation.

15 Secondly, it is said, “And anyway we did supply further information when you asked for  
16 it”. In fairness, I think it is right that that information was made publicly made available,  
17 presumably on Ofcom’s website. I will be told if that is wrong. That is still after the horse  
18 has bolted. The consultation paper has been published. That is the document that people  
19 are going to respond to. Mr. Roche went to the unusual lengths of saying, “Can we see  
20 some more detail?” but not everybody will have. If this is a proper consultation exercise, if  
21 that data is relevant, it should have been part of the consultation.

22 The final limb in Ofcom’s defence is to essentially rely on judicial review case law about  
23 procedural fairness and say, “Well, this would not be sufficient to give rise to a procedural  
24 fairness challenge if we were in the Administrative Court”, but of course we are not. The  
25 complaint we make is not primarily about procedural fairness, it is really a point about  
26 robustness. The absence of detail in the consultation paper affected the detail of  
27 consultation responses and the detail of the consultation responses affects the quality of  
28 Ofcom’s reasoning. If it had laid out its assumptions it may have found that they were  
29 more effectively challenged, or indeed perhaps supported.

30 Sir, I have taken an hour to deal with those preliminary points but they do help me go much  
31 more quickly now through the grounds of challenge. In a large sense, the defence that  
32 Ofcom mounts to this is one of regulatory discretion, and I have dealt in a broad way with  
33 why we say that is not an answer. I can deal with them fairly quickly, although I give

1 advance warning, it is the first point that I am going to take the most time on, so do not lose  
2 heart if it takes me a little time.

3 The cost benefit analysis starts with the costs of direct routing and those costs are, in effect,  
4 the capital and operating costs of the CDB. Those costs are derived from the Sagentia  
5 report, which we have already looked at and we are now going to look at in a more detail.  
6 Our submission will be that this report, while Sagentia may well have done the best that  
7 they could with what was available to them, just was not adequately robust. While Ofcom  
8 has, in a sense, thrown out most of Sagentia's analysis or superseded it with better  
9 information, this part it has clung on to and continues to cling on to.

10 The conclusion that Sagentia reach from mobile operators is that the capital cost for the  
11 industry as a whole will be £12 million. Can I ask you to turn in the report – it is tab 8 of  
12 the Appeal bundle, and I just remind you it is about half way through the documents under  
13 that head – and I would like to start at p.44.

14 “Cost Benefit Analysis” in the middle of the page. It explains what it has done and then it  
15 shows its conclusions, and just above “Process-related Aspects” it says:

16 “For a combined NGN and Mobile case, including Direct Routing of all fixed to  
17 mobile and mobile to fixed traffic, we obtain a NPV of £297.3m.”

18 Of course, one sees immediately that that NPV has shrunk rather dramatically down to £38  
19 million by the date of the decision. It is worth reflecting on the fact that if the NPV really  
20 were that high a lot of the points we make about the level of detail of specificity in the  
21 analysis may not matter that much. If it is just overwhelmingly clear that the NPV is  
22 massively positive one can afford, if you like, to go round a few corners on two wheels.  
23 That is not the position any more.

24 What we see is that the crux of Sagentia's work starts at p.65. You will see it says, “6.4  
25 Basis of Costs used for Modelling”. It starts with some material about fixed costs which I  
26 am going to touch on briefly, and then over the page is really the critical part, “Mobile  
27 Network Upgrade”. This half page box is the entire analysis of the capital costs for mobile  
28 networks of the CDB solution. This is all there is. I want to take you through it, if I may.  
29 It starts by saying, and this is important:

30 “This applies to Scenarios M1, M2 and M3”

31 I just want to show you what those scenarios are. That is back on p.64. Scenario M1 is at  
32 the bottom of the page. It is the mobile only solution. Over the page, M2, is a variant on  
33 the mobile only solution.

34 THE CHAIRMAN: Sorry, could you just give me a moment to read the rest of that section.

1 MR. WARD: M2 is over the page, and just uses a different figure for the donor conveyance  
2 charge, it is a variant on M1. Then M3 is mobile originated fixed and mobile terminated.  
3 So, very importantly, it includes mobile to mobile calls but also calls from mobile to fixed  
4 numbers.  
5 Back in the analysis itself, p.67, Sagentia is saying that what follows applied both to the  
6 mobile only part but also to mobiles – in other words, a call from a Vodafone customer to a  
7 fixed line, which has been ported through a different fixed operator. It starts by saying  
8 this:

9 “A mobile network is inherently more ‘intelligent’ than a fixed network so is  
10 capable of doing the ACQ with minor capacity upgrade.”

11 So, in other words, some extra work will be needed.

12 “At least two mobile networks have already implemented the Call Trap function.  
13 To do this they perform an ACQ on an internal database ...”

14 Is it helpful to explain what Call Trap is, or can I take it ----

15 THE CHAIRMAN: It is understood, I think.

16 MR. WARD: It is understood. So you have already have Call Trap, at least two. Then the next  
17 paragraph:

18 “Moving to an ACQ system for all routing is a simple extension of this process.”

19 So a little bit more is needed.

20 “The database would have to be much larger (a copy of the main CDB) and the  
21 routing prefix would have to be added to all ported numbers as they leave the  
22 network.”

23 Routing prefix is, alas, something we will have to come back to. This is where it works out  
24 what the costs will be.

25 “Our analysis of traffic data ...”

26 so not actual cost data but traffic data

27 “... shows that an operator implementing the Call Trap function can save between  
28 £0.11 and £1.1M per annum in donor conveyance charges.”

29 So there is a variation there of tenfold. Somewhere between those two figures, if you work  
30 backwards from the traffic data, you can identify the cost. If, and one might underline the  
31 word “if”:

32 “If the operators who implemented Call Trap look for a 7-year payback ...”

33 as opposed to some other period

1                   “... this suggests that the capital costs of the implementation are in the range of  
2                   £0.8M to £8.0M per operator.”

3                   So working backwards from the traffic figures, taking a range that is tenfold in terms of  
4                   what might be saved, and then assuming a seven year payback they then come to a figure  
5                   of a tenfold variant, £0.8 to £8 million per operator.

6                   “Since at least two operators ...”

7                   although in silent parenthesis we do not know how many:

8                   “.. have already implemented Call Trap we put the range of costs for the five UK  
9                   operators to implement ACQ at £0.8m-£24m.”

10                  In other words, a 30-fold possible range. Then for modelling purposes they plump for a  
11                  kind of middle figure of £12 million.

12                  This is the analysis which has been sensitivity tested through a 70 per cent stress test. Our  
13                  over-arching submission is that it is just completely inadequate and when the net present  
14                  values have fallen as low as they have this cannot possibly support a confident conclusion  
15                  that the NPV will remain positive.

16                  I want to explain why. There are really four reasons why that is so. Firstly, Sagentia itself,  
17                  and indeed even H3G, agree that call trap itself is not enough, because call trap is  
18                  essentially an internal mechanism within the network. There are calls going out and you  
19                  see whether they are to stay within the network. You are only concerned with your own  
20                  calls.

21                  CDB is something else. Firstly, there is a centralised database.

22                  THE CHAIRMAN: So if you go to CDB that is the end of call trap?

23                  MR. WARD: I think that is a debatable point, sir, to be honest. I will leave this for Miss Bacon,  
24                  but I think O2 at least would say, “Actually you need both”. The crucial point is this: both  
25                  involve looking up the numbers before they are routed. Of course, they do. Call trap is  
26                  just looking up to see if they can be retained within your own network. CDB is all the  
27                  networks, all the calls, ultimately, of course, not just to mobiles but also to fixed.

28                  THE CHAIRMAN: So whether you keep call trap or not, CDB is an entirely separate system  
29                  which has to be created with all the costs which are involved in that, that is what you are  
30                  saying.

31                  MR. WARD: Yes, it is called a “central database”, there must be a central database, and one of  
32                  the unresolved issues is whether or not the mobile operators, in fact all the network  
33                  operators will have real time access where they literally look up on it , or whether they will  
34                  retain copies of it within their own systems.

1 THE CHAIRMAN: I am not asking you to do this now, Mr. Ward, but somebody may be able to  
2 help us later on as to what purposes one would retain call trap for within one's own  
3 operation if a CDB is created. I am sure there is an answer, and a positive answer, and we  
4 might be helped by knowing what it is.

5 MR. WARD: I will take instructions and, as I say, I think it may be that O2 has an answer to that  
6 question.

7 THE CHAIRMAN: We do not need it now.

8 MISS BACON: Would you like a written explanation or can I deal with it orally tomorrow,  
9 because I was going to, but if it would help you I can do a written note overnight?

10 THE CHAIRMAN: It depends how busy you are this evening.

11 MISS BACON: We can send you a note if that would help.

12 THE CHAIRMAN: Thank you.

13 MR. WARD: In any event, the crucial point I make here is that something extra is needed, it is  
14 not just call trap on its own. In fairness, just for your note, Mr. Suthern explains this from  
15 Vodafone's perspective in para.38 of his witness statement, and H3G acknowledges this  
16 too – albeit that they take a different view of the cost – and Mr. Baxter talks about this at  
17 para.76.1 of his witness statement. But the important point is that Sagentia itself actually  
18 recognised this because it talks about the need for at least what it describes as a minor  
19 capacity upgrade “some additional work will be needed”. If you look into the fourth  
20 paragraph, it also says that the database will have to be a copy of the main CDB in  
21 parenthesis, although that is an assumption about how it would work, which is still up for  
22 grabs. Yes, you have to somehow talk to the other network operators in order to find out  
23 what their position is in regard to ported numbers. It is going to cost something obviously,  
24 and Sagentia says so, but unfortunately what Sagentia does is provide no cost element at all  
25 for that work, because all it does in what follows is work out through a series of rather  
26 indirect assumptions what it thinks the cost of Call Trap will be. We can see that, just  
27 picking it up three paragraphs from the end of the box:

28 “If the operators who implemented Call Trap looked for a 7-year payback, this  
29 suggests that the capital costs of the implementation are in the range of £0.8m to  
30 £8m per operator.”

31 So that is what the call trap costs. Since at least two operators have already got a call trap  
32 all we need to do is cost the other three call traps, and it says the range of cost is £0.8m to  
33 £24m depending on whether you are one or three, and depending on whether you are the  
34 bottom or the top of the range, then it just cheerfully splits that down the middle and says

1 “Let’s call it 12”. That, of course, assumes that the only cost we are talking about is call  
2 trap itself, it has not allowed for any of the other elements at all. Again, this may not have  
3 seemed very important to Sagentia, because this was not going to tip over a £290 million  
4 positive NPV into the red, because it was not going to cost 300 million, but of course now  
5 it is absolutely critical.

6 Here, what we have in effect is just a plain error on the face, there is nothing allowed for a  
7 recognised cost component, and what we see is that the evidence is that the costs could be  
8 very large indeed. I am going to come on to that in a minute but one must not lose sight of  
9 the fundamental point that you do not have to decide what those costs will be, it is just no  
10 part of your function at all. All we ask you to do is to recognise that they have not been  
11 included.

12 My third point under this head is that what Sagentia has done here is to completely  
13 overlook the fact that the mobile to fixed solution is going to be a big cost driver, because  
14 we saw at the top of the box that this applies to scenarios M1, M2, and M3 equally. In  
15 other words, it makes no difference whether we are talking about mobile to mobile only,  
16 or calls outbound from, say, Vodafone to BT to a ported fixed line number. That,  
17 unfortunately, simply is not right and Mr. Sutherns has given detailed evidence on this for  
18 Vodafone at paras. 42 to 51 of his statement. If I can invite you to read that of course, but  
19 just summarise what are really the key points. What he says is that because of the very  
20 tight timetable that Ofcom has imposed the mobile operators have to implement what he  
21 calls a crash programme to get something up and running by September 2009, and that  
22 programme will itself be based on the standard call trap solution. But that will not do for  
23 technical reasons once the fixed networks are involved as well, which is at the latest by  
24 2012, and sooner if they can manage.

25 He says that the additional technical demands of routing from mobile to fixed give rise to  
26 some very large numbers indeed – I remind you those are confidential numbers. They are  
27 essentially derived from the need to acquire additional switching capacity because of a  
28 technical difference between mobile routing and fixed routing in terms of prefixes which  
29 relate to where the calls will end up, destination codes in the jargon. So when you look up  
30 the number to see where it is going you are dealing with a string of numbers that is  
31 required in the case of mobiles.

32 Now, none of this is of course dealt with by Sagentia at all. I am not being critical of  
33 Sagentia, they may well have done the best job they could, but they just did not have the  
34 data, so instead of looking at data they did this reversed engineered hypothesis instead.

1 Now, it is right to say there are big differences between the parties about what all of this  
2 would cost. H3G in particular says it would all cost a lot less, although it does say why, in  
3 the sense that we were rather too broad in what we said, that H3G have said we ignored all  
4 of this cost, and I will accept that that perhaps went too far. But in its skeleton and just for  
5 your note, para.64 of H3G's skeleton basically says: "We have additional capacity so we  
6 will be able to do this without a vast expense". Vodafone's case is it will need to spend  
7 quite a lot of money to fix it. One of the points that Ofcom make is that O2's estimate is  
8 not very far out from what Sagentia say, but as I think Miss Bacon is going to address you  
9 on in due course, O2's estimate that Ofcom was looking at was for mobile only, it says  
10 nothing about fixed.

11 So we have these various estimates if you like swilling around in the papers before you but  
12 as I have already said you do not have to decide which his right. H3G's solution, which is  
13 at para.57 of its skeleton is to say: "Sagentia must be about right", because Ofcom has  
14 exercised a regulatory judgment which sits between the two". That, we say with respect, is  
15 hopeless. What Ofcom needed to do was actually look at what the actual costs would be.  
16 They may vary between networks for perfectly sensible commercial reasons, and not as  
17 H3G tries to suggest that Vodafone is madly inefficient, but their commercial situations  
18 may just not be the same.

19 What does Ofcom say about this. Can I ask you to look at para.49 of the skeleton. We  
20 are not quite done with Sagentia, so if it is helpful to have them both to hand that would be  
21 my suggestion.

22 Page 29, tab D, Ofcom's skeleton. Ofcom says, this is talking about the extra cost of  
23 moving on to a solution that works for mobile and fixed, this is a speculative point.

24 Sagentia did not allow for any specific additional costs which might be required to future-  
25 proof any initial mobile-only solution because no such specific costs were identified by  
26 network operators. Pausing there, we know from what Sagentia says that basically it  
27 operated without any real cost information at all.

28 THE CHAIRMAN: Just pause for a second, please. (After a pause) Yes, I was just comparing  
29 para. 49 with the M1, M2, M3 scenarios.

30 MR. WARD: Yes. So, they did purport to deal with it, but the point that is being put is that they  
31 did not recognise that there was this enormous extra cost.

32 What Ofcom says is, "Well, you did not identify any of this to Sagentia". The answer to  
33 this is that, in truth, in Vodafone's consultation responses, it made absolutely clear that this  
34 was a serious problem and incurred serious extra cost. Just for your reference, it is set out

1 at paras. 104 and 105 of our skeleton - in particular, the first Vodafone consultation  
2 response at Tab 9, p.3, para. 13 and accompanying footnotes. I will not take you there now.  
3 But, it just cannot be said that Vodafone did not point to the fact that this was going to be a  
4 problem, even if at that point Vodafone did not know how big a problem it really was.  
5 Then, the second point that Ofcom make is a repeat of something we have already heard at  
6 para. 50. Vodafone proceeded on the basis -- Sorry. Ofcom. I said 'Vodafone'. I mean  
7 Ofcom's skeleton. I am sorry. At para. 50 Ofcom proceeded on the basis that a mobile-  
8 only solution being formulated now will be sufficiently flexible to anticipate NGN-based  
9 converged fixed and mobile solutions in the future. One of the benefits of leaving  
10 industries free to design the necessary technical solution is to enable them to design  
11 efficient solutions that are likely to be resilient to near-term developments.  
12 You will already appreciate what we say about that - which is: How much will it cost?  
13 What Ofcom has done here - and this really echos what I said about technical specification  
14 - is to say, "Oh, don't worry. You're all terribly clever. We know you'll think of  
15 something". Of course, they are. They are very busy trying to sort it out in a forum called  
16 UKPorting which Ofcom has established for the purpose. But, that is simply to put the cart  
17 before the horse because of course, the real issue is: What is it going to cost?  
18 Then, the fourth point about Sagentia, which I will take very briefly, as I have really  
19 already foreshadowed it, is that even if you accept all of Sagentia's logic and all of its  
20 premises, it is just hopeless. The reasoning is hopelessly insecure, because instead of using  
21 anything that resembles directly attained cost data, everything has been, if you like, back-  
22 solved (to use my learned friend's words) from something else, and huge margins have  
23 been left of uncertainty as to what the true values are.  
24 I do not want to repeat myself, but we work backwards from traffic data to find out what  
25 the actual saving is from call trap, instead of simply asking the operators who implemented  
26 them. Then a seven-year payback is assumed for a capital expenditure instead of simply  
27 finding out what operators do in fact assume. Then, the costs of implementation are  
28 therefore inferred instead of asking. Then it says that at least two operators have  
29 implemented call trap. We know that is actually wrong - three have, and two more are in  
30 the course of doing so (something that Ofcom now accepts to be right). Then we have  
31 plumped for this figure on the basis that there must be three of them, and a middle point of  
32 £12 million will do for the purposes of modelling.

1 Our submission is that that is just nowhere near good enough. It is nowhere near good  
2 enough to give you a secure figure which may matter when the margins have become as  
3 tight as they have in this case.

4 I also want to address you very, very briefly on Sagentia's analysis of costs to fixed  
5 networks ----

6 THE CHAIRMAN: This is a general point: I suppose that Ofcom, dealing with companies like  
7 those represented here today, are entitled to assume that in the process of consultation an  
8 intelligent response will include figures if they are available, and it is not good enough for  
9 the companies simply not to provide figures in anticipation of that reasonable requirement.  
10 Is that going too far?

11 MR. WARD: Sir, it is going too far, because what they are entitled to do -- Firstly, they have a  
12 specific power to ask whatever information they think they need. It is their job as a  
13 regulator to make sure their analysis is sufficiently robust.

14 THE CHAIRMAN: If they do not ask the right questions, or if their questions are too general, in  
15 the real world an intelligent life between Ofcom as a regulator and big companies like  
16 those represented here today -- Is it not reasonable to expect that a little imagination would  
17 be used by those giving responses?

18 MR. WARD: I see the force of your point, sir, but what we come back to really are two things:  
19 firstly, Vodafone at least, which spent a lot of time on this consultation process, made clear  
20 that it had real concerns about the adequacy of this. The second point is that it has taken a  
21 lot of looking at this to work out what the real basis of it is. When you go back to look at  
22 the actual consultation documents in due course one is faced with almost a sea of assertion  
23 by Ofcom about what the costs and benefits are. This ties into my point really about the  
24 inadequacy of the consultation document and the more the premises are spelled out, the  
25 simpler it becomes to see what is wrong with them. It just cannot be said that Vodafone  
26 turned a blind eye to this point, and then later has jumped upon it because it is expedient in  
27 the appeal.

28 In a general sense, though, there is a difficulty in one network, if you like, volunteering its  
29 own figures because (a) it may not be representative; but (b) whenever there are  
30 assumptions involved in what the figures are that you are talking about, the figures may not  
31 be readily translated across. That takes us back to the point that it was really for Ofcom to  
32 say, "Let's work out what it is that we are costing". Of course, we know that the call trap  
33 alone is not really the answer anyway. So, Vodafone did not really accept the premise,

1 “Well, we’ll just give you a call trap figure. You can multiply it by five, and there we are”.  
2 Instead what it said is, “This is just not an adequate basis for proceeding”.

3 Can I take you briefly to what was said about fixed networks? That is on p.66. This is  
4 fixed network NGN. It starts with the Mason report. Elsewhere Sagentia describes its  
5 report as an update on Mason. You will remember that the Mason report was at Tab 4, and  
6 it is a costs modelling for (as it says here) ‘modelled the costs of upgrade for TDM  
7 networks to perform ----’. Of course, what we are now doing is modelling next generation  
8 networks, which is a totally different proposition. Taking the fourth line of what Sagentia  
9 say,

10 “The costs of implementing a CDB approach in these new NGN networks has not been  
11 studied in detail by the operators because there are no standards yet defined for doing so”.  
12 This is picking up something we were looking at earlier.

13 “Whilst no respondents could provide any cost indications for adding CDB to the  
14 NGN, the overwhelming majority agreed it would be lower ---”

15 So it says, “We haven’t got any cost data at all to start with, but [perhaps understandably]  
16 we’re now going to do the best that we can”. What they do is that they say, the Mason  
17 study identifies three significant capex items [which are obviously the technical kind]. It  
18 says, in effect, picking up the last four lines of what is said underneath, “Whilst we have  
19 had little feedback on NGN costs from operators in our interviews, we conclude that these  
20 three capex items identified as significant in the Mason report, would be negligible in the  
21 most common fully evolved NGN architecture”.

22 So, that may, or may not, be right, but what they say is: “Let us knock those out because  
23 we do not think that they will apply under NGN architecture”. Mason identified several  
24 other capex items in their report. There are about nine items that are listed, again of a rather  
25 technical kind. Of these items the first four are related to the TDM network architecture  
26 and will not be present in an NGN. There will, however, be similar capital items purely  
27 related to the NGN architecture which we believe will be lower, although not significantly.  
28 The remaining five will be present in the NGN architecture with similar costs. The Mason  
29 report costed these items at £61.5 million at the time. Based on our above reasoning we  
30 conclude this figure should be used.

31 So what it has done is say, “Look at what Mason costs did, some of this we can strike out,  
32 some of it will need something similar, so we will just assume the cost is the same. Some  
33 of it we will definitely need”. And in fact what Masons said was that those items, that list

1 of, I think it is, nine items, would be responsible for about 30 per cent of the costs. They  
2 have said, "That is our figure".

3 That may well be doing the best you can without any information, but what jumps off the  
4 page here is that what Sagentia is saying is nobody could give it any cost information. In  
5 those circumstances it resorted to, in a sense, a very, very crude back of the envelope  
6 calculation in order to make an informed guess about what might be left. They come to a  
7 figure of £61 million. That may not matter when the net NPV is in the positive several  
8 hundred million range, but it really matters now and it really is not good enough.

9 THE CHAIRMAN: Choose your moment, Mr. Ward.

10 MR. WARD: Sir, if that is convenient, that is convenient for me.

11 THE CHAIRMAN: All right, we will adjourn for a quarter of an hour or so.

12 (Short break)

13 MR. WARD: I was talking about the Sagentia estimate fixed operators' capital costs and how  
14 they have simply taken a figure of 30 per cent of the value of the overall costs on the basis  
15 that the shopping list of small items would be the same or equivalent. I just wanted to  
16 show you one further reference that relates to that point as to where that 30 per cent figure  
17 actually comes from. It is in Mason, which is tab 4 of the Appeal bundle, at p.29. It is  
18 "Additional Capex Items", because you will recall, there were the big three items and then  
19 there was the shopping list of additional items. It says:

20 "All operators focused on the three major items above, but also provided partial  
21 details on a range of other capital costs as detailed below."

22 That is our list of nine.

23 "Based on an appraisal of the information provided, these additional capex items  
24 are estimated to contribute an additional 30% of the three major capex items ...  
25 In the sensitivity analysis, we have assumed a low value of 20% and a high value  
26 of 40% ..."

27 So it is important to see that the apportionment in Mason itself was not especially secure  
28 and the little bit of sensitivity testing that Mason did was lost in the wash when the figure  
29 was translated over to Sagentia.

30 If you could turn up Ofcom's skeleton, I would like to deal with what Ofcom says about  
31 this part of our case. In a sense, it takes two completely new points, not prefigured as far  
32 as I know in any previous document. It says at para.41 that it:

1 “... welcomes the fact that it now appears to be accepted that the direct routing  
2 solution to be used for mobile networks will be ‘based on the existing Call Trap  
3 function’.”

4 I have explained why that is something of a selective representation of what Vodafone’s  
5 actual position is:

6 “What is now said against Ofcom, however, is that this direct routing solution will  
7 be rendered useless, and have to be replaced, within 1 to 3 years, as a result of the  
8 need to provide direct routing from mobile to fixed networks.”

9 Correct.

10 “As Ofcom understands this point, it relates to decisions taken by the NICC (of  
11 which Vodafone is an active member) ...”

12 NICC is the Network Inter-Operative Consultative Committee, which is in essence a  
13 standard setting body for the industry, a technical standard setting body, a body which  
14 Ofcom itself participates in, I am not sure whether as an observer or as an actual, if you  
15 like, member. What it says is that the problem is that:

16 “Each fixed line net telephone number will be have to be accompanied by a  
17 explicit indicator of geographical location ... and this, it appears, will result in a  
18 need to send longer chains of numbers than the MNOs existing systems can cope  
19 with. This is not a difficulty for which Ofcom’s decision is responsible, but arises  
20 as a result of the apparent incompatibility of MNOs existing systems with the  
21 longer number chains mandated by the NICC on the basis of industry agreement.”

22 So Ofcom’s response to this is to treat this as a kind of act of God for which it cannot be  
23 held accountable and if that means that Vodafone have to spend the very large figure  
24 mentioned in our confidential evidence, that is just too bad.

25 What is that to do with Ofcom? The answer is that Ofcom could, and indeed did, see that  
26 this was part of the framework in which it regulates it. We can see this from both the  
27 Consultation documents and the decision document itself. Can I ask you to turn back to the  
28 Appeal bundle. It is worth keeping the skeleton out because we will have to go back to it.  
29 Could you go to tab 8, which is the first Consultation document. We can see on p.4 it says  
30 at 1.8:

31 “The analysis of the costs and benefits of the transition in the mobile industry  
32 suggests that, while migrating to a common solution for both and fixed and mobile  
33 networks should deliver the optimal outcome, this may be best achieved by  
34 migration of the mobile industry to the ACQ/CDB solution ahead of that in fixed

1 networks because switches employed in mobile networks are likely to already be  
2 capable of carrying out queries on their databases on every call. Ofcom considers  
3 that the completeness of such a transition should be achievable by September  
4 2009. It could, in addition, and subject to analysis of detailed information from  
5 industry on costs and benefits, be appropriate to require the mobile industry to  
6 complete a comprehensive transition ...”

7 i.e. mobile to fixed as well

8 “... using Network Interoperability Consultative Committee Service Description 8  
9 or other agreed standard, within one year ...”

10 So, in other words, if you are going to do this you will need a technical standard from the  
11 NICC.

12 You will see at 1.10 an indicative timetable which has long since been overtaken by events:

13 “a) Stable standards agreed by the NICC.”

14 So that was always envisaged, a standard setting would have to be part of the process.

15 If we go to the decision itself in the same bundle at tab 1, p.27, there is a summary of  
16 Consultation responses on the deadlines for establishing and populating the CDB. You  
17 will see at 3.63 there is a summary of the NICC’s contribution:

18 “NICC warned that the task of populating the CDB is not straightforward and that,  
19 in any event, there are limitations on how such data can be used to route calls in a  
20 pre-NGN world. NICC advised that each ported number recorded on the CDB  
21 would need to be associated with information (typically a Destination Group  
22 code) to specify the location ...”

23 So NICC has drawn attention to the basic issue of destination route codes and then the  
24 matter is referred to again at A1.16, p.53. This is in the cost benefit analysis. One sees in  
25 the middle of the paragraph:

26 “Ofcom recognises, as NICC noted, that some modifications would be required to  
27 enable mobile networks to interrogate a CDB on every outbound call attempt ...”

28 i.e. mobile and fixed. So what we have here, therefore, is a recognition that the NICC have  
29 drawn attention to the issue.

30 I have brought to court, taken from Ofcom’s website, NICC’s actual Consultation  
31 Response document that is being referred to here. Could I hand up copies with apologies  
32 that not all of my learned friends yet have copies as we under-estimated the number. I  
33 hope that there are at least enough to share and we will, of course, produce further copies

1 over the short adjournment. This is the Consultation Response of the NICC, and it just  
2 says at the bottom of the page, just to remind you what it does:

3 “NICC also wishes to stress that our remit extends only to the development of  
4 technical standards.”

5 That is what we have already explained. I want to show you two passages in particular.  
6 Could I ask you to turn to the fourth page, which says “SMS” in the middle of the page.  
7 There are two bullet points just above that, and the lead in to those bullet points says:

8 “... from a technical perspective NICC would highlight that:  
9 some capability and standards development may be needed, as the nature of the  
10 lookup is not quite the same ...”

11 Then it makes points about how existing lookups are done, and it says:

12 “The existing lookups are carried out on the given MNO’s number ranges (for  
13 non-ported numbers ...). The usage of a central database will require MNOs to  
14 query on *all* number ranges, which is a more onerous requirement.

15 These considerations could impact on equipment capability and capacity, at a time  
16 when existing equipment is approaching obsolescence.

17 Then over the page there are some rather more technical details which I would just like to  
18 give you a very short flavour of. In the third paragraph. It is actually talking about SMS,  
19 but it says in the second line:

20 “The Destination Group numbering scheme currently proposed by NICC will  
21 result in a number length either 18 or 19 digits ...”

22 rather than the 15 digits that the mobile networks are able to cope with. So our point is  
23 really a simple one which is that Ofcom cannot somehow claim that it was regulating in a  
24 vacuum and the NICC just proposed something from afar that it cannot possibly be held  
25 responsible for and that the costs associated with these longer routing codes just cannot be  
26 taken into account; it is just unreal. The NICC’s work was part of the context in which it  
27 operated.

28 If I can turn back now to Ofcom’s skeleton, its next point, which is also new, relates to  
29 transit networks – this is bundle D, tab 3, p.27. I will just explain very briefly what a  
30 transit network is – you may have already appreciated this from the papers – in essence  
31 calls from one network to another go via a transit network, i.e. a third network. For  
32 example, and I have no idea if this is true, if an O2 customer is ringing Orange they may be  
33 connected directly or they may be connected via a transit network – there are all sorts of  
34 transit networks in place throughout the industry, but there are also direct connections in

1 some cases. What Ofcom says is that all of this cost could be avoided by using a transit  
2 network, so let us see what it says at para.43. It does not accept that the technical  
3 requirement for MNOs to adapt their systems to cope with these longer number chains  
4 need involve the adoption of new direct routing equipment, in other words the expensive  
5 CAPEX item we have identified. In addition to the mobile-to-mobile direct routing  
6 system, Ofcom notes it is open to the MNOs to route calls to fixed networks via a transit  
7 network, such as BT or Cable & Wireless, indeed, it says Vodafone presently uses this  
8 method.

9 At the bottom of the paragraph it says: “Accordingly it will not be necessary for MNOs  
10 themselves to invest in a ‘look up’ system to enable the direct routing of calls to ported  
11 fixed line numbers.

12 Now, there are a number of points to make about this, but it is in our submission a  
13 thoroughly bad point. First, it has elided smoothly from transit networks to ‘look up’.  
14 ‘Look up’ is where this cost element occurs, so the call is going to a fixed operator and one  
15 has to look up its destination using the 19 digit look up code. For your note you can find  
16 that in Mr. Sothens’ witness statement para. 51. Transit networks are, in a sense, the pipe  
17 down which the call is sent whilst the destination has been identified, so actually they are  
18 totally separate cost elements, and the big cost element is the looking up, that is what Mr.  
19 Suthens has identified.

20 Anyway, even if that were wrong, even if Mr. Suthens can be contradicted on that, this  
21 cuts directly against the grain of everything that Ofcom is saying; it says the purpose of this  
22 is to get away from inter-dependence of networks. It does not like onward routing for the  
23 reason that it is onward routing via another network. But here it is saying that you should  
24 use transit networks, and a transit network is really just another form of onward routing. In  
25 Vodafone’s case this is particularly acute because Vodafone itself has a fixed line business  
26 as well as a mobile business, so according to Ofcom what it ought to do is to route its calls  
27 out via, as it says, BT or Cable & Wireless so they can be routed back to Vodafone. Well  
28 that is actually another form of on-net tromboning which is, of course, one of the vices that  
29 we are supposed to be getting away from.

30 There is a more fundamental point here though, that of course there is a commercial  
31 question which is, of course, about cost, and cost is what we are really interested in here.  
32 Whoever provides this there is going to be a cost, and if Vodafone does not have to buy  
33 this equipment, somebody else is going to buy the equipment and, of course, what are they  
34 going to do? They are going to recover the cost from Vodafone. These charges are not

1 regulated in any way, yet Vodafone is under an obligation to do this. It is quite  
2 understandable that Vodafone might prefer to do it itself rather than be held hostage, with  
3 the best will in the world, by independent operators in the market trying to maximise their  
4 return on this capital investment. So, in my respectful submission, that is a thoroughly bad  
5 point. That takes us to the end of what we want to say in oral submission about the costs of  
6 direct routing.

7 The next element, which I will deal with a lot more quickly, is the benefits of direct routing  
8 because, of course, the question is do they outweigh the costs. The exercise here that  
9 Ofcom conducted was very simple indeed. The efficiency gain that it identified was a  
10 saving in the cost of onward routing. In other words, all of the ported calls which are  
11 currently onward routed incur a cost of onward routing and that cost is going to be saved,  
12 and that is what we offset against the cost of all this new expenditure. All it had to do in  
13 order to reach that figure was to take the volume of ported minutes and multiply it by the  
14 cost of ported minutes, that is the exercise. It is considerably complicated by the fact that it  
15 in fact involves a projection because, of course, direct routing, even for mobile numbers is  
16 not due to come into effect until the end of next year, and the costs and benefits that have  
17 been projected out to 2018. We say that both of these elements of the costs benefit analysis  
18 are, in truth, completely insecure and, by simple steps, could have been made a great deal  
19 less so.

20 If I can start with the volume of traffic, which is the first element in the calculation.

21 Ofcom's reasoning on this is very complicated and, in truth, in part remains obscure, at  
22 least to Vodafone. We are going to look at it in a minute but it is not simple to follow at  
23 all. What we say is that they made the task a lot more difficult than it needed to be by  
24 relying on complex calculations rather than by simply looking at actual trend data. We  
25 have already heard that mobile portability has been with us since 1999. Over that time  
26 there have been all kinds of changes which will have affected the volumes over the years;  
27 of course there was - recently a very, very important change in the form of call trap, but  
28 actual trend data could have been obtained here and would have been very helpful. What is  
29 actually quite bizarre is that on Monday Ofcom wrote to Vodafone at least asking for some  
30 actual data, and Vodafone has indeed replied. We do not know if it wrote to any of the  
31 other parties, but obviously you anticipate what I say about that, that would have been a  
32 very good idea at the time it took its decision. But, what we will see is that the kind of  
33 projection and reasoning that Ofcom engaged in has led it to a figure which is miles away

1 from Vodafone's actual empirical experience. Now, that may be explicable but Ofcom has  
2 made no attempt at all to reconcile the two.

3 Can I take you to the decision? You will need p.58 through to p.62. I would invite you,  
4 before reaching your decision in this case to read these pages with care. I am not going to  
5 take you through them line by line because I freely admit that to some extent the reasoning  
6 in here is impenetrable – to Vodafone at least.

7 THE CHAIRMAN: You can assume we have all read these pages – whether we have read them  
8 with requisite care is another matter, but we have certainly tried.

9 MR. WARD: I am very grateful for that indication, but I am going to pick out a few points from  
10 this, but in due deference to the rest of it which I am not going to take up time with. The  
11 starting point is that among the factors that Ofcom put into its calculation was the rate at  
12 which people were porting their numbers. In other words, the number of subscribers  
13 porting over in a particular year. If you look at p.59 I will show you what they actually  
14 said – it is the third of the three bullet points on the page. It says:

15 “Sagentia considered that the annual growth in traffic to ported mobile numbers  
16 will be 2 per cent each year ... Ofcom noted in the July 2007 Statement and  
17 Consultation that an annual growth assumption of 2 per cent was not borne out by  
18 evidence from market research which indicated that 5 per cent of all subscribers  
19 had ported their number in the most recent 12 months. On the assumption that  
20 customers who had ported their number have a similar traffic profile as other  
21 mobile users, a 5 per cent increase in mobile users with ported numbers will  
22 translate to a 5 per cent increase in call minutes to ported numbers.”

23 Then, at the bottom of the page it says:

24 “Taking a conservative approach, Ofcom has adjusted the model to assume call  
25 minutes to ported mobile numbers will increase by 5 per cent each year.”

26 That assumption is hopelessly wrong for a number of reasons. But let us start with the  
27 actual basis of this 5 per cent figure. It is market research. The market research is found at  
28 Tab 15. It is appended to the July consultation paper. There is internal pagination, and  
29 p.81 is headed ‘Further Consumer Research’. You will see, if you look at A6.3, 1,900-odd  
30 adults were initially questioned. I just want to put aside one assumption made in some  
31 submissions made against us. We do not query the overall size of this sample. That is  
32 clearly a perfectly appropriate sample size. What happened is that the figure for actual  
33 porting is derived from a very small set of those people. If you turn over to p.82 you will  
34 see ‘Switching Behaviour’ at the top of the page. It says that around three in ten mobile

1 users have switched provider in the past four years, half of whom have changed in the past  
2 twelve months. Then there is a graph. Then it says in italics, “Base. All adults with a mobile  
3 ‘phone which is 1545” because, of course, some of the people they spoke to did not have  
4 one.

5 Knowledge and experience of porting. Of those who have switched in the past twelve  
6 months, two-thirds changed their mobile number. Then we have a figure of 66 percent.  
7 You will see, “Base. All adults who changed mobile number in the past twelve months, i.e.  
8 224”. What we end up with from this is a figure of 76.

9 Now, what we have said - and this has been disputed rather strongly - is that what Ofcom  
10 have done here is to have taken a consumer survey and asked people, in effect, for their  
11 recollection. This is not data from the mobile operators. It is Ofcom asking people what  
12 they recall about what they have done, and why, and so on, and so forth. They have said,  
13 “Over the last year what have you done?” They have come up with this figure of 76.

14 Ofcom has extrapolated this figure of 76 out to 2018. They have said, “Well, here we have  
15 a figure for the rate of porting, and we are going to apply this now for the next ----“

16 THE CHAIRMAN: You cannot have it both ways, can you, Mr. Ward? I mean, if the sample is  
17 appropriate and the percentage of respondents on a particular point happens to be small,  
18 that is part of opinion polling.

19 MR. WARD: Absolutely, sir. Absolutely. But, my point is not really, I hope, as crude as that.  
20 The point is really this, and it is a much simpler point: Look, the reality is that you could  
21 get actual data. You could simply ask the networks what the pattern of ported percentages  
22 were over time. Find out the facts rather than relying on a market research exercise which  
23 is based on the recollections of consumers, in effect. It is not that that is invalid. It is not  
24 that the sample size is too small. It is just that it is a snapshot, and it is a snapshot of  
25 recollection where what could have been done is trend data acquired.

26 Now, it is true to say that Ofcom did ask for some data under its s.135 powers. But, this  
27 was not one of the things that they asked about. What we say is that, in truth, they could  
28 have easily obtained a much more stable, long range and precise, and durable figure to  
29 carry out such a long-term projection with. You will see in Mr. Roche’s evidence that he  
30 says that in act industry experience is closer to two to three percent. I am not asking you to  
31 find one way or the other whether that is right - of course I am not. What I am saying is  
32 simply that this was just unnecessarily insecure. It was so easy to do better.

33 PROFESSOR STONEMAN: Can I ask a query on that? I mean, we are talking about portability  
34 of numbers between mobiles and mobiles, and mobiles and fixed. I am sure you do not

1 have any data on switching behaviour between mobile and fixed. But, surely that is what  
2 one requires. No? Can you not ask people who have switched mobile to mobile to give  
3 their opinions on switching, and thereby infer something about fixed to mobile which you  
4 would not be able to get from mobile to mobile switch data?

5 MR. WARD: Firstly, sir, this data is only concerned with mobile to mobile.

6 PROFESSOR STONEMAN: But the issue is concerned with -- I mean, you were telling me just  
7 now about all the costs involved with fixed to mobile portability, and therefore this data  
8 must surely refer to- if we are going out to 2018 - not just mobile to mobile.

9 MR. WARD: Sir, can I just take you back to p.58 of the decision? You will see that what  
10 Ofcom did was to keep fixed to mobile separate for this purpose. If you look at para. A1.53  
11 Sagentia assumed that in 2003 5 percent of fixed numbers in usage had been ported.  
12 Sagentia's model assumed that the growth in porting rate each year would be about 1.4  
13 percent on average, based on an EU average. Then, Ofcom says, "Well, nobody  
14 complained about this. So, we stuck with it". So, that is how they dealt with fixed. I  
15 should have really made this clear at the outset of my submission on this: the part of the  
16 decision we are looking at is concerned with porting between mobiles - so mobile customer  
17 moving to another mobile provider. That, we say, mobile operators were perfectly well-  
18 equipped to answer. So, sir, I am sorry for not having made that clear.  
19 In fairness to Ofcom, it did not just stop there. It did not simply say, "Well, look, 5 percent  
20 a year. A number of customers ----" You will see - I have already shown you in the third  
21 bullet point - that it does say that a 5 percent increase in mobile users with ported numbers  
22 will translate into a 5 percent increase in call minutes.  
23 Of course, it is not as simple as that. We made the point with Ofcom in our consultation  
24 and they recognised it. So, they revised the figure down in all kinds of ways. But, there are  
25 two basic reasons why it is not the same. One is that not everybody who ports in a given  
26 year is actually going to increase the number of ported minutes. What one has to look at is  
27 the net number of new ports. This is dealt with by Mr. Roche in his witness evidence. But,  
28 there will be customers who have ported in the past, who give up their service - either they  
29 abandon their 'phone, or they move abroad or something of the like. There will be  
30 customers who port, but who then port back to their original subscriber. There will be  
31 customers who have ported for the second time. So the absolute number of new ports each  
32 year does not provide a proxy for the actual volumes of ported minutes. Ofcom did  
33 recognise that. You will see, if you look at the decision, that it is recognised at para. A1.51.  
34 if you skim-read before you get there the previous two pages you will see various other

1 adjustments are conducted by Ofcom. Sir, I am not accusing them of sticking with the 5  
2 percent figure as if that were the answer.

3 THE CHAIRMAN: Just pause for a second. (After a pause): Can we just go back to p.59? I  
4 want to be clear what part you have just quoted from the third bullet point on the page  
5 means?

6 "A 5 percent increase in mobile users with ported numbers will translate to a 5  
7 percent increase in call minutes to ported numbers."

8 Does that mean that there is going to be an overall gross increase of 5 percent in call  
9 minutes that are used, or is it simply moving the call minutes used by the porters' ported  
10 numbers from one network to another? I cannot, off the top of my head at least, see the  
11 logic of suggesting that someone who ports a number then uses their phone more. That is  
12 not suggested?

13 MR. WARD: No, I do not think that is the suggestion. I think it is the other alternative you put,  
14 sir. We are talking about the cost from onward routing. The more that is ported, the more  
15 onward routing there will be, all other things being equal. I think, in fairness to Ofcom,  
16 that is the point they are making.

17 THE CHAIRMAN: That is what I assumed. Thank you.

18 MR. WARD: I will just very briefly talk you through what they did, rather than just jumping to  
19 A1.51. You will see at A1.46 and A1.47 that they acknowledged the force of another one  
20 of Vodafone's points, which was that because porting to fixed services is only being  
21 gradually introduced over time. The amount of ported traffic to fixed numbers will only  
22 come on stream slowly in terms of savings, in terms of direct routing charges. They  
23 accepted our point. We are not making a point about that.

24 Then under A1.48 to A1.50 they make an assumption about call trap. Of course, call trap  
25 takes out some ported calls, because of course the call would be ported from Vodafone to  
26 Orange and then back to Vodafone. That is what we call on-net tromboning or false  
27 porting. We are all agreed that that should not count towards the volumes of ported  
28 minutes because call trap has now taken it out.

29 Then it conducts a calculation at A1.51 to massage its figures. I am sorry, I do not mean to  
30 be quite that disparaging. It subjects its figures to a kind of equation which is in the bottom  
31 of A1.51 to account for the fact that not all ports or new ports do not necessarily translate  
32 to a volume of ported calls. I am not going to attempt to take you through the formula, but  
33 what I am going to show you is what they say about it over the page.

1 THE CHAIRMAN: I did pass additional maths O-level, but I am afraid I did not attempt an  
2 exercise of working out that equation!

3 MR. WARD: I am reassured that the expert at Vodafone was completely unable to work it out  
4 either, sir, so I have absolved myself of the need on that basis.

5 What Ofcom says, and this is what really matters, where does Ofcom come out? It says in  
6 A1.52:

7 “Based on this projection, the cumulative percentage of traffic to ported mobile  
8 numbers that benefits from direct routing rises to 33% by 2018 under the Base  
9 Case, where all mobile operators are assumed to have implemented Call Trap ...”

10 As we know, all operators will have implemented a call trap. They say by that stage it will  
11 be a third of all calls. You will see that it says five lines down:

12 “Ofcom sees no reason to believe the proportion will stabilise at a markedly lower  
13 level, eg. 20% as suggested by Vodafone.”

14 At this point it is really, I think, helpful to look at what Vodafone actually said to Ofcom  
15 about this, for which we need Mr. Roche’s second witness statement, which is in bundle 2.  
16 It is the first time we have been in this bundle and I will just point out how the index to it  
17 works in case it causes momentary confusion. You will see that there is a divider A, B  
18 through G for each parties to the documents that are within this bundle. Then in some  
19 cases there is an A, B, C, D, E within one of those headings. Where I am going is  
20 Vodafone’s documents which is tab C about in the middle of the bundle. Mr. Roche’s  
21 second witness statement is at B within that C. I want to start at para.11, if I may. It starts  
22 by meeting a point which I have not yet addressed, but I am going to come on to, which is  
23 that one of Ofcom’s defences to this part of our claim is to say, “We actually started with a  
24 conservative estimate for the starting volume of ported calls”, and what Mr. Roche says is  
25 this:

26 “... the level of traffic in 2007 is not in itself critical – what is of importance is the  
27 level of traffic in 2010 – 2018, the years for which a saving is identified in the  
28 CBA. Thus the forecast level of growth of traffic from Ofcom’s starting point of  
29 2007 to 2010 is very significant. Ofcom’s starting point, on its base case scenario  
30 (i.e. assuming all operators will have implemented call trap), is that 8.3% of the  
31 total of inbound traffic will be ported traffic. In 2010, however, this has grown, in  
32 Ofcom’s base case, to 16.9% (i.e. an increase of 8.6% in the percentage of total  
33 inbound traffic or a more than doubling in the proportion over three years when  
34 mobile porting has already been in existence since 1999), and it then rises

1                   heroically to 33% by 2018. It may very well be that the 8.3% in 2007 is  
2                   conservative – however the 16.9% in 2010 and the growth to 33% are not.”

3 I have shown you that because Mr. Roche has obviously derived more from the document  
4 than I can show you on the face about how that trend line of 33 is going to come about.

5 The reason why Mr. Roche says that this growth is improbable is not some kind of  
6 speculation on his part. It is because it is miles out of line with Vodafone’s actual  
7 experience. You can see that very vividly from the graph which appears on the next page,  
8 which is Vodafone ported in minutes as a percentage of total inbound. What you will see –  
9 in fact, Mr. Roche explains this in the lines just above – is that there was a steady climb  
10 heading towards 20 per cent. Then what happened was that Vodafone implemented its call  
11 trap. Since then the numbers fell off a cliff and, as he puts it, have remained constant at a  
12 particular level ever since, which is miles below the level projected by Ofcom for 2010 by  
13 when we are supposedly going to have this huge increase from 8 per cent to 16.9 per cent.  
14 If you go to p.14 of Mr. Roche’s statement there is an admittedly rather simple graph  
15 which shows just how much extra call volume is included if you assume the Ofcom rate as  
16 opposed to the two lower rates which Vodafone were experiencing, the middle rate, and the  
17 lower rate which is the flat line of what it is actually experiencing now.

18 In the evidence, in effect, Mr. Roche points to two different things which are behind it.

19 One is that the net rate of porting, when you take out all the stop ports, the unports and the  
20 re-ports, and so on, is actually neutral for Vodafone, or thereabouts.

21 The other is, it is the call trap that has taken out a huge volume of ported minutes which of  
22 course we are all agreed should not be included in the totals. He has an explanation as to  
23 why it might have such a powerful effect in the witness statement, but I will invite you to  
24 consider that at your leisure.

25 The crucial point here though is that here we have some actual hard data from at least one  
26 operator as to what actually happened in the past and particularly in the light of a call trap.

27 It looks miles away from what Ofcom says it is projecting to 2018.

28 The effect of this, by the way, is that if Vodafone is, in fact, representative of the industry  
29 as a whole, which we have no idea of course, that would take the NPV to minus £3 million,  
30 and that figure is in Mr. Roche’s statement. Whether or not that is right and whether or not  
31 that is representative of everybody, our point is really a simple one, which is that when  
32 Ofcom was faced with this reality it ought to have asked itself why it was that it was so far  
33 out of line with its assumption, because the call trap appears to have had a dramatic effect.

34 We know that three operators had already implemented a call trap and two others were in

1 the course of implementing. As Mr. Roche says, the start line for this whole enterprise is  
2 still some way off anyway at the end of 2009. So the call trap is a fact of life and those  
3 calls, those on-net tromboned calls, to use the jargon, are not going to be a part of the  
4 saving that Ofcom was seeking to rely on.

5 Why then, we ask simply, did Ofcom rely on its very complicated calculations rather than  
6 say, "This seems to be seriously out of line with the trends that are actually being  
7 experienced at least by Vodafone"? We need to know whether Vodafone's experience is  
8 typical or not. In other words, it needed to look harder at the actual data.

9 PROFESSOR STONEMAN: Mr. Ward, before you go any further. That data on ported in  
10 minutes is quite impressive, why is there no matching data of ported out minutes? Ported  
11 out minutes would tell us what is happening to the other companies?

12 MR. WARD: Sir, I will ask over the short adjournment, if I may.

13 PROFESSOR STONEMAN: Another point as well, Vodafone has the largest market share and  
14 therefore one would not expect it to be typical ----

15 THE CHAIRMAN: Miss Bacon is shaking her head at that assertion.

16 MR. WARD: It is not actually right, Sir. In our terms the position is that four operators, apart  
17 from H3G are very roughly of the same magnitude.

18 PROFESSOR STONEMAN: It is the comparison to H3G ----

19 MR. WARD: H3G is clearly different and there is a document in H3G's exhibit which actually  
20 gives the figures, and it may give you a flavour. If I could ask you to turn in the same  
21 bundle at tab 6 of tab B; B is H3G and tab 6 of H3G is one of its exhibits.

22 THE CHAIRMAN: You need an additional maths 'O' level to work your way through this  
23 bundle.

24 MR. WARD: I am sorry about that, Sir.

25 THE CHAIRMAN: Do not worry, flag 6?

26 MR. WARD: Flag 6, this is a document which is Telecommunications market data update Q3  
27 2007. It shows you at p.21 just as an indicator, interconnection call volumes for the four  
28 large operators, and you will see they are not very different from each other, but in fact  
29 Vodafone is not the market leader.

30 PROFESSOR STONEMAN: All right, but it has been the market leader, and it is one of the  
31 market leaders. The whole point is the ... to 18. If two hour porting's expected impact ...  
32 then what one would expect is each of the players in the market to have pretty much equal  
33 market shares; that in itself would imply much higher levels of porting and would not

1 necessarily imply that Vodafone would have any more porting in, but more porting out,  
2 and H3G would have a lot more porting in.

3 MR. WARD: There are two things to say about that, sir. First, I entirely accept, sir, in the nature  
4 of this point that Vodafone's experience may not be a simple answer to this, but we are not  
5 saying "There you are then, that is the answer", that is the figure for the industry. Our  
6 submission was that it had to be looked at and what Ofcom should have done is say "We  
7 need some real data here to see if this is typical and then when we have looked at the data  
8 we can extrapolate forwards using reasoned assumptions about what may or may not  
9 happen to that data in the future.

10 But there is a second point, sir, which harks back to something I said earlier this morning in  
11 opening the case – do not forget that recipient led two hour porting is premised on the  
12 decision for direct routing being cost effective. So the benefits that that may or may not  
13 bring about cannot somehow bootstrap up the direct routing solution in itself. Of course  
14 that will make a difference – or may – but it is not in itself an answer to the point.

15 PROFESSOR STONEMAN: Well that depends on whether you ... indices to work it out. That  
16 is a technical term you have to take into account. But just as relevant though is whether the  
17 forecasts assume that porting will continue to be free.

18 MR. WARD: Yes.

19 PROFESSOR STONEMAN: You might charge for porting or different speeds of porting.

20 MR. WARD: Sir, I come back to the same point which is that none of this has been looked at.

21 PROFESSOR STONEMAN: Would there have been any answers anyway?

22 MR. WARD: Well would there or not, it is really not for us to say in the sense the question for  
23 you is, is the Regulator's judgment sufficiently robust that one can confidently say that  
24 they have identified and costed the benefits. The point here is that the analysis they have  
25 come up with is wildly at variance with the empirical experience of one particular operator.  
26 What they should have done then is look at all the operators to see if they were having a  
27 similar experience, and you will see in Mr. Roche's statement he talks about one other  
28 operator at para.15 who he believes also has a call trap and Vodafone has noticed a similar  
29 drop off in its outbound trade to that operator. So that is at the most circumstantial  
30 evidence. But our point is again that we are asking for this to be remitted not decided. The  
31 question is: "Did Ofcom look hard enough at this?", or were they entitled to say: "So  
32 what?" in effect, "So what to Vodafone's experience?" I read to you what they said about  
33 it: "We just do not see any reason to reduce our projections to that kind of level." Our

1 submission is that that is just not good enough, if empirical data was available they should  
2 have asked for it.

3 The other answer, which is very heavily relied on by both Ofcom and actually H3G is that  
4 because the analysis was conservative in some respects, in other words it understated the  
5 call volumes, it just does not matter if it may have overstated in other respects, because the  
6 point is this, Ofcom used as its starting point actual figures given by the industry for 2005  
7 in terms of volumes, and did not update them to 2007. We have made the point we would  
8 have just preferred it if you had used up to date actual figures. Ofcom and H3G have said:  
9 “Look, that is ridiculous, that is the point against you”, because of course the volumes will  
10 grow – everyone accepts that they grow, “so this is a conservative assumption and in fact  
11 favours your argument where you are seeking to show that there is no benefit.”

12 What we say about that is twofold. It is just better in principle to use accurate, up to date  
13 data, but more fundamental, and this is the real answer, you cannot glibly assume that if  
14 you are a bit conservative on the starting point, a bit generous on the trend of porting that  
15 they will neatly balance each other out, and you will luckily, by a fluke end up at the right  
16 number and that is what the argument really amounts to. As Mr. Roche has said in his  
17 witness statement in truth the percentage growth over time is a very, very powerful thing  
18 cumulatively over a 11 year period which will dwarf the effect of whether or not the  
19 starting point might have been 20 per cent lower. Even if it does or does not, it is just not  
20 an adequate basis for regulatory action.

21 With that I would like to turn to my next point, which is a little shorter. This is a point  
22 which appears to be one of very fine grain detail but again makes an impact on the net  
23 present value, which is about the unit cost of ported calls, because of course we have to  
24 multiply the volume by the cost. Here, the issue is really about the rate of change, and you  
25 will see that the point is dealt with in the decision at A1.54, A1.55. That is bundle 1. You  
26 will see here that what happened was that Vodafone made a point that was substantially but  
27 not entirely accepted by Ofcom, and they characterised the remaining disputes as just a  
28 kind of sour grapes that they did not accept everything, but it is not really quite as simple as  
29 that. At p.62 of the decision - the cost of onward routing to mobile ported numbers.

30 “The July 2007 statement and consultation noted Ofcom had recently determined  
31 a dispute in respect of charges for onward routing of calls to ported mobile  
32 numbers and had concluded that the cost was approximately 0.2ppm. This  
33 assumption was, therefore, included in the Base Case in July 2007.

1 In its response to the July 2007 Statement and Consultation, Vodafone noted that  
2 the analysis relied on in determining the dispute had assumed that onward routing  
3 on 3G networks would be less costly than onward routing on 2G networks (and  
4 the figure of 0.2ppm is therefore a blend based on current proportions of 2G and  
5 3G traffic). Vodafone argued that, as the proportion of traffic carried on 3G  
6 networks is likely to increase during the period to 2018, the assumed cost of  
7 onward routing to ported mobile numbers will fall during the period to 2018.”

8 In other words, as more 3G calls are made and less 2G calls.

9 “In the context of resolving the disputes Ofcom was not required to take a view  
10 on what would be a reasonable charge for onward conveyancing in the period to  
11 2018. Nevertheless, Ofcom accepts that there may be some merit in Vodafone’s  
12 assessment that costs of onward routing to mobile ported numbers may fall. It is  
13 not clear, however, how quickly or how far costs will fall. For the purpose of  
14 this cost benefit analysis, in the Base Case, Ofcom has made assumptions of  
15 falling unit costs consistent with Vodafone’s point as shown in Table 1.”

16 At table 1 we see that for 2007 to 2010 the cost is considered to be stable, and then it falls  
17 in bi-annual increments of 0.02 down to 0.12. Now, what this does not allow for is that  
18 actually Ofcom rejected a critical part of Vodafone’s analysis without any reason at all -  
19 that is, that the rate of change proposed by Vodafone was completely different to this. If I  
20 can show you in Roche 2, which is perhaps more useful for the present purposes -- At p.7.  
21 To remind you, that was behind Divider C, sub-divider B. There is a table on p.7. The  
22 first column is the Ofcom rate that I just showed you from the decision, where the rate is  
23 completely steady for four years, and then falls every other year by 0.02 pence per minute.  
24 Next to that is the rates that Vodafone has suggested in its consultation document. Now,  
25 this point may seem like hair-splitting, but actually, as Mr. Roche explains in the paragraph  
26 below, it makes a difference of £16 to the NPV. So, it is not hair-splitting at all if it is right.  
27 Now, why then do we say that Ofcom was not perfectly entitled just to take its own view of  
28 the rate of decline, putting aside the question of whether it is really sensible to say that  
29 there would be no change for four or five years? The answer is really a simple one which  
30 is simple to state but very difficult to explain: that Vodafone’s figures were not made up by  
31 Vodafone. They were extracted from an economic model that Ofcom itself devised with  
32 the help of consultants’ analysis to calculate the change in termination costs over the period  
33 to 2020. The detail of this is exhausting and exhaustively set out by Mr. Roche in paras. 6  
34 and 7 of his witness statement. I am not going to attempt to take you through it. What he

1 says in essence is that he just applied Ofcom's own economic model to reach the figures  
2 that he did. The detail is all there.

3 It just raises a very simple question, which is: Why then did Ofcom not apply its own  
4 economic model in this particular case? Of course, it is free not to. I am not suggesting  
5 that having used the model once it has got to use it for ever. But, what it needs is a reason.  
6 The reason is conspicuously absent. We can see the way the point is dealt with in their  
7 skeleton at para. 65. So, we are back in Bundle 3. Ofcom's skeleton at para. 65 at p.35. It  
8 says at the top of the page, "Ofcom instead adopted its own profile which suggested a more  
9 even reduction in the costs".

10 Really there are two points about that: (1) it is not more even. Actually it assumes no  
11 change at all in costs for four years, despite the fact that on the face of it 3G networks are  
12 replacing 2G networks. But, more fundamentally, this is not a reason at all. What we had  
13 was an economic model which Ofcom itself had devised and operated. Why did it not use  
14 it? I am not saying at all that it was incapable of being answered, that question. There may  
15 be a good reason why the model needed to be adjusted. But, no reason whatsoever has been  
16 put forward, and, as a result, £16 million has been added to the NPV. Once again, we say,  
17 "Not robust".

18 That is all I want to say about the quantified aspects of the cost benefit analysis for direct  
19 routing. But, before we get on to recipient-led porting that leaves donor network failure.  
20 As I said in opening, in a sense there are two limbs to the decision here: there is the cost  
21 benefit analysis point, which, if you are with me thus far, everything else I am going to say  
22 today does not matter at all because that will unravel the entire decision. But, on top of the  
23 finding that there was a positive net present value, they also said that there is a gain in  
24 terms of protection from network failure. That gain there has been no attempt whatsoever  
25 to quantify. So, it is a question of whether or not in some regulatory sense there is a  
26 judgment that can be made here that will somehow save the case. Our submission is, no,  
27 there is nothing at all in the unquantified part of the decision on donor network failure  
28 could possibly save the case if the net present value is not securely posited as that was the  
29 premise of the decision.

30 But, in any event we have made submissions about this as to why it is in truth a factor that  
31 cannot be ascribed very great weight. I am not going to rehearse those reasons in any  
32 detail. Miss Bacon is going to make submissions upon this on behalf of O2. I do want to  
33 just make a couple of very brief points about this. It is a fundamental misconception to see  
34 telecoms networks as essentially independent and onward routing as a special case of

1 dependency. The truth of the matter is really quite the opposite - they are heavily inter-  
2 dependent for all sorts of reasons. We talked earlier about transit networks. This is  
3 obviously not surprising because, of course, people on one network do need to call people  
4 on another network. Onward routing is really just one instance of this inter-dependence,  
5 and, in a sense, it is the tip of the iceberg because it is only a matter that affects people who  
6 have ported their numbers, and it only affects in-bound calls to their numbers.

7 But, if there are problems of network failure, they are much more fundamental. If, for  
8 example, Vodafone's network goes down, it is not just the people who might have ported  
9 to Vodafone from H3G who are affected - it is everybody. It is anybody else who might be  
10 using Vodafone's network for part of their call conveyance.

11 So, our real point here is that the benefit, such as it is, does not even remotely go to the  
12 heart of the problem. If you conclude it is a regulatory priority to protect people from the  
13 failure of networks, then what is being done here is just nibbling at the edges. The  
14 Tribunal has already made the point this morning - at least in argument - that, "In any  
15 event, what is this all worth?" That really is, we say, completely unquantified, impossible  
16 to tell, and there is nothing remotely in the decision that begins to explain that. But, the  
17 crucial point anyway is that it is just not going to the heart of the problem of network  
18 failure.

19 There are various arguments raised in the skeleton which are not in the decision itself  
20 which seek to bolster this. But, none of them really answer this essential point. One thing  
21 they say is that there will be an impact on people who have remained with the network  
22 anyway - the failed network - like Atlantic Telecom. They will lose their ability to port  
23 away. But of course, that shows how limited the impact upon them will really be. If the  
24 customers of the network themselves cannot port away, they just have to accept a new  
25 telephone number, and what we see from what Ofcom's market research is that people do  
26 not really seem to mind that -- that the appetite for porting is not very strong.

27 I am going to leave this point because Miss Bacon is going to deal with it, and, as I said, in  
28 a sense, it just does not matter. If the cost benefit analysis is not robust, nothing here can  
29 really save the case for Ofcom.

30 With that I will turn to recipient-led two hour porting, which I can deal with much more  
31 briefly than the first half of the case. I would like, at the risk of repeating myself, to  
32 mention again the crucial point, which is the introduction of recipient-led two hour porting  
33 was premised on the introduction of direct routing. So, once again, if our main  
34 submissions succeed none of this can stand - it all has to go back. However, it is right to

1 say that there was actually an attempt to conduct an impact assessment for this aspect of  
2 the decision as well. So, they did not just rely on the cost benefit analysis. They looked at  
3 the costs and benefits. What there is in the decision is a kind of mish-mash of partially  
4 quantified cost and benefit elements and wholly unquantified factors, and, we would say,  
5 in very large, bare assertion that this is all self-evidently a good thing. That is actually more  
6 or less said in terms in the skeleton in a number of places.

7 The critical point, again, from Vodafone's perspective is that there were costs here. That  
8 much is accepted by Ofcom. It has not made any really sensible attempt to assess those  
9 costs. It has not really made any attempt to quantify the benefits - except in one limited  
10 respect that we will deal with. In those circumstances the impact assessment - which is an  
11 assessment of costs and benefits, as we have seen, is, again, hopelessly insecure.

12 What I would like to do is to start by showing you what it says in the decision about costs.  
13 We can pick it up at p.65, please. You will see, at para. A1.66, above that in red is the  
14 heading -- Actually, it may be useful to start at A1.64 because this makes good a point I  
15 have just made.

16 "This sub-section first discusses the impact assessment of moving to a recipient-  
17 led porting process from the current donor-led process whilst a CDB is in place".  
18 So, that is the core premise. Then it says, "Impact assessment of the decision to deploy a  
19 recipient-led process". At A1.66 it says,

20 "The main task of deploying a recipient-led process for porting numbers relates to  
21 the automation of systems to allow easy communication between the providers  
22 and modification of call routing tables. To a large extent the CDB will offer this  
23 functionality".

24 So, it is basically saying, "The CDB will do this". At A1.67 a very important observation:

25 "Whilst it is difficult to determine precise estimates of the costs, in part because  
26 the responses of different providers will vary, Ofcom sees no compelling  
27 argument to suggest that in the presence of a CDB to enable direct routing, the  
28 incremental costs of recipient-led mobile number porting processes are  
29 significantly higher than those for a donor-led process".

30 So, there is a lot to unpack in there. Firstly, it says, "We don't have a precise estimate of  
31 the costs --" or, rather, "It's difficult to assess the costs". But, one pauses and says,  
32 "Why?" This is not like a projection out to 2018 of what the volumes of mobile numbers  
33 will be. This is a technical question. "What is it you need to build in order to delivery  
34 recipient-led porting?" Then it says, "-- in part because the responses of different providers

1 will vary". Well, why will they vary? The answer is - and we will come on to this -  
2 "Because there is no specification". They do not know what it is that they are costing.  
3 Then, Ofcom couches itself carefully in the negative:

4 "Ofcom sees no compelling argument to suggest that in the presence of the CDB  
5 the costs will be significantly higher".

6 But, that is an admission of the fact that they do not actually have a compelling, positive  
7 assessment of what the costs will actually be because thus far they say, "No-one has been  
8 able to tell us because, of course, their responses will vary". In fact, what you see over the  
9 page is a figure at A1.68 which - and I will be corrected if I am wrong - is totally  
10 unsubstantiated in the documentation. I do not think the details of this have been  
11 provided. It just says, "We've estimated that the incremental one-off costs will be about £5  
12 million. £2.5 million in changes to network systems; £500,000 operator processes; £1  
13 million in retailer processes". We do not know what the basis of that estimate really is.  
14 Then, the other thing just to point to very quickly is what it says about the change to near-  
15 instant porting as well as recipient-led porting. That is at A1.82.

16 "The CDB will enable near-instant changes to call routing tables and will  
17 fundamentally alter the way ported numbers are managed. In Ofcom's view, in  
18 these circumstances, it would be inefficient to design the new process to extend  
19 across two working days when it can be completed near-instantly. Ofcom  
20 recognises that some incremental costs for training staff may be incurred,  
21 although these are likely to be minimal under an automated process".

22 So, in a sense what it is saying is that the calls central database will deliver all of these  
23 changes on their own, or as good as on their own, or almost on their own. That might be  
24 why Ofcom did not think it was really necessary to analyse this properly.

25 We say that there are really two points here: one is that the absence of any specification  
26 again meant that Ofcom did not really know what this would cost; the other is, perhaps as a  
27 result, that it has completely failed to recognise that there are substantial cost elements of  
28 which you will find not a trace in its decision.

29 Sir, that would be a convenient moment for me.

30 THE CHAIRMAN: Can you give us an idea of how we are progressing - not to place any  
31 pressure on you at all, of course.

32 MR. WARD: I hope half an hour, maybe slightly more, but certainly not an hour.

33 (Adjourned for a short time)

34 THE CHAIRMAN: Yes, Mr. Ward.

1 MR. WARD: Thank you, sir. We had embarked on the question of the adequacy of the  
2 assessment of costs for recipient led porting. I had taken you to the passages in the Impact  
3 Assessment which said, just to remind you, it is difficult to determine precise estimates of  
4 costs in part because the responses of different providers will vary. I had pre-figured a  
5 point, which I am now about to make good in a little more detail. The problem here again  
6 was, of course, a lack of specification to work from.

7 I want to just show you briefly a chain of documents which pre-date the decision itself,  
8 starting with the July Consultation Paper, which is at tab 15. I just ask you to note the  
9 dates on the front of them because they are of some relevance to what is to follow. You  
10 will see it is published on 17<sup>th</sup> July with closing date for responses 10<sup>th</sup> September. This  
11 paper did include for the first time the kind of costs estimate that we still have in the  
12 decision. Could I ask you to turn to p.73, para.A4.31, the last three lines:

13 “Ofcom has estimated that the total industry costs of moving to a recipient led  
14 process *along with* near instant porting is a one-off costs of about £3-£5m.”

15 That has been hardened up a little bit, as you have seen. It is now said to be £5 million and  
16 it was broken down into three components, if you recall from this morning.

17 That was published on 17<sup>th</sup> July, and on 14<sup>th</sup> August it became clear that Ofcom itself  
18 recognised that this cost estimate was inadequate. We know that because Ofcom actually  
19 sent Vodafone at least a draft s.135 notice. That notice is at tab 17. It is, we would say, a  
20 little odd to be consulting and then seeking the information which would inform the costs  
21 estimate in the consultation, but nevertheless you may say, “better late than never”. The  
22 notice was first served in draft, if you see the cover letter, inviting comments. I just want  
23 to make a couple of short points about this. If you turn over the page to the third page,  
24 which is the second page of the letter on the right hand side, “Draft Formal Notice”, you  
25 will see just above the second hole punch a number 2:

26 “Please provide your best estimate of the following cost elements. Ofcom  
27 recognises that, at this stage, and in the time allowed, it may not be possible to  
28 make an accurate and fully comprehensive assessment of costs. Please use  
29 reasonable endeavours to identify the major cost components, distinguishing  
30 between costs arising from (i) near-instant porting and (ii) recipient led porting.  
31 Please highlight any cost elements which you consider to be particularly  
32 uncertain, stating where possible the likely bounds of uncertainty. Please supply  
33 an explanation of the assumptions underlying each cost element.”

1 THE CHAIRMAN: Can you just help me. Can we go back to the previous document, tab 15,  
2 p.73, para.4-31. The figure of about £3-£5 million is derived from what?

3 MR. WARD: No idea.

4 THE CHAIRMAN: So there is not an underlying document?

5 MR. WARD: Not that I know of.

6 THE CHAIRMAN: Thank you.

7 MR. WARD: I will be corrected of course, but I have not spotted it.

8 THE CHAIRMAN: Thank you very much. Sorry, I interrupted you.

9 MR. WARD: Not at all, sir. I was showing you what came hot on the heels of that estimate,  
10 which was a request, but do not forget, a draft formal notice, a formal notice to be backed  
11 up by a mandatory notice which is compulsory. It sets out a whole series of costs elements,  
12 “Set up costs”, incremental enhancements to the central database, systems integration,  
13 other hardware, other software, training, training, other costs, annual running costs, etc. etc.  
14 Bear in mind that the context here is that the idea of the central database has been floated,  
15 but again, as I have already explained, perhaps at too great a length, no specification for  
16 that either. We know this is supposed to piggy-back on top of it.  
17 Ofcom responded, but perhaps before going to Ofcom’s response you will see in the draft  
18 letter over the page that it points out that there are offences of failing to comply with the  
19 requirements to provide the information.  
20 Vodafone wrote back more or less straight away, a week later, and that is the next  
21 document in this same tab, saying, “We cannot answer this request”. What is said, if you  
22 look on the first page, “Failure by Ofcom to provide a clear and proportionate information  
23 request”:  
24 “Vodafone wishes to draw to Ofcom’s attention its duty under the provisions of  
25 s.137(3)(b) of the Act to ensure that any demand for information is ‘*proportionate*  
26 ...’  
27 In this case, Ofcom has failed to provide significant clarity about how such a  
28 central database would operate in practice. In particular, Ofcom has failed to  
29 explain, *inter alia*, the precise nature of the data it envisages ...”  
30 and so on and so forth. Then down five or six lines:  
31 “The direct consequences of Ofcom’s failure to provide this information will be  
32 that each recipient of the information request ...”  
33 assuming that there were others

1           “.. will be placed in the invidious position of needing to make its own further  
2           assumptions, which are likely to be divergent. The forecasted costs produced as a  
3           result of these divergent assumptions are potentially prone to being regarded as  
4           unreliable, and consequently of limited value when assessing the impact of any  
5           change to the number portability regime in the United Kingdom ...”

6           Then over the page it complains about the amount of time provided by the notice and says,  
7           in the middle of that paragraph in the seventh line:

8           “Instead, it involves the preparation of an *ab initio* analysis by demanding that a  
9           recipient of the information request takes into account and interprets a number of  
10          ill-specified and questionable assumptions and prepares forecasted costs based on  
11          these assumptions. The creation of the costs data of the kind requested by Ofcom  
12          would necessitate extensive internal discussion, research and expert analysis ... it  
13          is clear that the diligent preparation ... would require weeks ...”

14       THE CHAIRMAN: Forgive me for interrupting again, I shall try not to do so even more  
15          repeatedly, but I am puzzled by a procedure that contains a draft letter, a draft formal notice  
16          and a draft response. Is the term “draft” simply otiose and put in for good measure in all  
17          such documents?

18       MR. WARD: This letter is not a draft, this is an actual letter. What they did was to send us a  
19          draft notice for our comments. We commented back ----

20       THE CHAIRMAN: So, it was taken as not a draft - it was taken to be a substantive response.

21       MR. WARD: No. You will see, sir, in a moment, that there was then a substantive notice. They  
22          sent the draft. I do not criticise them for this. They said, “Here is what we would like ----“  
23          Do not forget, once they make the demand, we have to answer it. Presumably we can  
24          judicially review ----

25       THE CHAIRMAN: Sorry. I am concerned by the timescale here, you see. We have a draft  
26          notice, dated July. Yes?

27       MR. WARD: A consultation paper dated July.

28       THE CHAIRMAN: A consultation paper dated July. We have the s.135 letter which is in draft --  
29          --

30       MR. WARD: -- on 14<sup>th</sup> August.

31       THE CHAIRMAN: -- with a request for comments by 21<sup>st</sup> August?

32       MR. WARD: No. It is not quite as tight as that. (After a pause): I am sorry. Comments on the  
33          draft letter by 21<sup>st</sup> August, yes. Then, the notice was going to require an answer by 10<sup>th</sup>  
34          September, which I think is the closing date for the consultation.

1 So, what Vodafone is saying in its letter is, “What you are really asking us to do is a huge  
2 amount of work which will be worthless because of the lack of common assumptions”.  
3 This was not just some kind of spoiling tactic, an attempt to sort of dodge the bullet and de-  
4 rail -- Sorry. I am mixing my metaphors. It is not an attempt to de-rail the whole  
5 enterprise. What Vodafone said at the end of its letter is, “Put forward something sensible  
6 and we will help you”. You can see that. It says in the last paragraph, “Action to be taken  
7 by Ofcom as proposed by Vodafone”. In the fourth line it says,

8 “Vodafone would strongly urge Ofcom to await the closure of its current  
9 consultation paper and consider whether to bring forward new alternative  
10 proposals based on its review of the responses. It should then identify the  
11 evidence it requires to assess any new proposals and issue a clearly reasoned  
12 cogent and well-defined request for information with more time”.

13 THE CHAIRMAN: I am sure that was well-received.

14 MR. WARD: Well, you will see, sir. What we got back was effectively a completely different  
15 and, in effect, toothless request for information. The letter comes back on 23<sup>rd</sup> August, on  
16 the next page - two days later - where it says in the first substantive paragraph,

17 “I have modified my request. Having considered your concerns about the  
18 difficulty you would face when responding, I have modified the draft information  
19 request to make clear it relates only to information already held with Vodafone  
20 and extending the time for complying”.

21 That is 23<sup>rd</sup> August. It again includes a draft formal notice. The draft is over the page - an  
22 undated draft. It says at the last four lines of that page,

23 “Ofcom has modified the information request so it now requires the provision of  
24 existing documentation relating to any assessment which Vodafone had already  
25 made of the cost and feasibility of rapid recipient-led porting”.

26 The notice itself was issued on 29<sup>th</sup> August. That is at Tab 20. You will see that the time  
27 for reply, if you turn the page, the first paragraph, has been extended to 28<sup>th</sup> September. So,  
28 past the close of the consultation exercise. Vodafone duly complied with this request. That  
29 reply is at Tab 22. If you look just below the second hole punch, the next paragraph,  
30 “During the period to which the information request relates Vodafone had not specifically  
31 considered in any depth the ramifications of either a port lead time of less than one day, or  
32 a porting process that is recipient-led as distinct from the wider issue of shorter lead times  
33 generally. As a result the documentation Vodafone is providing to Ofcom is limited”.

1 Behind the letter is some very limited information - a summary. Much of the information  
2 consists of a draft of the earlier consultation response.

3 So, what we had here was an apparent recognition by Ofcom that the original figures it  
4 included in its consultation document were no good, and then an attempt to use its s.135  
5 power - which, on the face of it, is understandable - but doing so in a way that really  
6 rendered it impractical for the operators to provide any useful answer. When Vodafone  
7 complained about that, Ofcom recognised the force of the complaint, reined in its request,  
8 but was left with something essentially not very useful.

9 So, what happened then is, in effect, we say, that by failing to specify what it was it was  
10 talking about, it robbed itself of the opportunity to properly understand what the cost  
11 elements would be. It asked the right questions in that letter - or at least some of them - but,  
12 of course, the problem was that it was not capable of being sensibly answered. As a result,  
13 what we are left with is a slightly revved up version of the same estimate, apparently  
14 pulled from nowhere in the consultation paper, which is the figure of £5 million I showed  
15 you when we started on this section of the arguments. That is an analysis which Ofcom  
16 itself had effectively rejected.

17 Now, Ofcom has responded to this in its skeleton argument. I would like to show you that  
18 now, if I may, in Bundle 3, Tab D, p.37. Paragraph 70 is an echo of what has already been  
19 said in that I have already really dealt with this.

20 “As with the formulation of the technical protocols by which to implement an  
21 ACQ/CDB direct routing solution, Ofcom followed its usual method for  
22 implementing new technical processes, by requiring industry, by way of  
23 regulation, to move towards a particular solution ----“

24 So, in other words, it says again, “This is what we do. We just identify what we have to do,  
25 and you go away and do it”, to which we say, as I have already said, “But this is just no  
26 good when what you are trying to do is assess the costs of what will be entailed”. They  
27 were right to think that they should look at those costs in advance rather than after the  
28 facts.

29 Then, at para. 71 it says, quite unfairly, that,

30 “Even now that a direct routing solution has begun to be worked up, the estimates  
31 put forward by the industry of the likely costs amount to little more than  
32 assertion”.

33 Well, the word ‘assertion’ is one way of putting it. ‘Evidence’ is another way of putting it,  
34 in the sense that Mr. Sutherns deals with this specifically in para. 53 of his witness

1 statement; Mr. Wardle, for O2, also puts in some specific figures. I think in Mr. Wardle's  
2 case it is £2 million, and in Mr. Sutherns' £1 to £2 million. But, of course, anyway, this  
3 sentence is so revealing - "Even now that a direct routing solution has begun to be worked  
4 up ----" You are still not sure what the costs are. Well, perhaps not, but it is a bit late for  
5 that, is it not? Here we are, nine months after the decision.

6 So, our submission is really that this, again, makes good the over-arching complaint that  
7 one needed to look at the specification before regulating.

8 The point about lack of specification is also really quite powerfully illustrated by the  
9 second problem here, which is that Ofcom proceeded on the basis that the CDB would  
10 more or less deliver two hour porting on its own. I have shown you already the passage in  
11 the decision. If I may, I will just show you again at A1.66 at p.65. forgive me for going  
12 over the ground again. It does say, you will see, in the third line of A1.66,

13 "To a large extent the CDB itself will offer this functionality".

14 Then, at p.69, A1.82, it says, "

15 The CDB will enable near-instant changes".

16 You would actually have to build in some inefficiency to prevent it from being near-  
17 instant, is basically what it says. There are similar statements scattered elsewhere through  
18 the decision document. In fact, you can see finally on this before we move to the  
19 argument, if you would please turn to p.42, it says in the fourth and fifth line:

20 "Ofcom considers the incremental costs of also requiring the process to be near  
21 instant would be close to zero."

22 There is quite a lot of detail about this in the witness evidence both from Vodafone and  
23 also from Orange in particular. I do not want to take you through that in any detail, but we  
24 would like to you consider it. There is a really simple point which is that the CDB on its  
25 own is just not enough, because if nothing else one of the crucial ingredients which is  
26 missing is what has been loosely described as authorisation activity. At the moment if you  
27 want to port your mobile phone number you have to go to your current provider, so if you  
28 are a Vodafone customer you go to Vodafone. Vodafone, of course, have all sorts of  
29 subscriber information about you, who you are, what kind of contract you are on, whether  
30 you owe them money and so on and so forth. The whole point of recipient led porting is  
31 that you are going to somebody new, somebody who does not know you at all, you are  
32 becoming their customer, and you are saying: "I would like to port this number", because,  
33 of course, it is perfectly simple for you to walk into the shop of, say, O2, and become their

1 customer, no difficulty with that at all. But you are also saying: “And I want to bring with  
2 me this Vodafone number.”

3 THE CHAIRMAN: You still have a contract with your original provider?

4 MR. WARD: You may have if you are a contract customer, it just all depends. But in any event  
5 you, say in my example of O2, need to know that the person who has walked in the shop  
6 actually has authority to switch this number over. One of the issues which rumbles in the  
7 background of this case is the potential for the mischief that that effectively creates.

8 Essentially what is needed therefore is some kind of mechanism whereby the new network,  
9 the recipient, can check with the old network, the donor, that this number is free to be  
10 ported by this person, and that of course involved, in a sense, accessing customer data.

11 What Ofcom is really saying is that all you need to do is change the CDB so you can see  
12 the numbers ported. So you switch it over from Vodafone to O2 on my example, and that  
13 may be something that the CDB can do, but very obviously there is a whole other aspect to  
14 this which needs to be looked at. Mr. Sutherns talked about how this might cost £1 to £2  
15 million for Vodafone alone.

16 We did explain this in detail in the second consultation response, and if I may just give you  
17 the reference just for your note – tab 21, p.12, para.43 and onwards. But the point is still  
18 live and this is something I mentioned before in discussion this morning, that it might be  
19 useful just to look briefly at Mr. Sutherns’ witness statement on this, which is in bundle 2,  
20 divider D. If I could ask you to look at p.7, para.33:

21 “The change to recipient-led porting is a major change of the existing IT systems in retail  
22 and provisioning and creates a host of new challenges that have not even been considered  
23 by Ofcom in the preparatory work, and have still not been determined. These include the  
24 following significant issues:

- 25 \* Authentication of customers: it is unclear how the recipient network operator  
26 will establish that the person requesting the port is entitled to authorise the  
27 porting of the relevant number.
- 28 \* It is not clear how the new systems will be expected to include safeguards  
29 against ‘slamming’ whereby a recipient network ports a number before it has  
30 been authorised to do it.

31 Which is obviously a form of misfeasance. Then bullet point four:

- 32 “\* No thought appears to have been given to the form of secure communication  
33 ... to exchange customer-specific information. Will there be a central hub or  
34 a fully meshed trust relationship?”

1 Then at para. 35 he goes back to this and reports what has been going on in UK porting  
2 which is the forum for giving effect to Ofcom's decision. He says how his colleagues have  
3 told him, at least – the first bullet point relates to how the CDB will interact with operators'  
4 own systems, but in the second bullet point:

5 “\* In respect of the issues to how operators/providers should communicate with  
6 one another to check that a porting request is validly made, there is a  
7 continuing discussion as to whether the CDB should act as an ‘intelligent  
8 hub’, with all messages between particular operators/providers being securely  
9 routed via the hub, and delivered by the hub to the relevant recipient, or  
10 whether, alternatively individual operators/providers should set up  
11 appropriate bilateral links with one another. It appears that the various  
12 participants favour the ‘intelligent hub’ solution, but it is not clear that Ofcom  
13 took account of the costs of either approach in the cost benefit analysis or  
14 impact assessment which supported its decision.”

15 Then he goes on to say he gives some estimates for the costs in effect, obviously doing the  
16 best he can on the information he has. In this element it is really para.53 and I have already  
17 presaged his evidence. It suffices for present purposes to note he says: “To understand  
18 more fully the costs associated with introduction of a recipient-led process, I have spoken  
19 with my colleague ...” and the last three lines: “I have estimated a further £1 million to £2  
20 million to the IT costs ...” and one might say “alone”, “with the wide range reflecting the  
21 fact that UK Porting has not yet fully specified what is proposed.”

22 So in other words, it is not at all crystallised, we still do not know what it will cost. What  
23 we have instead are these amazingly broad brush figures from Ofcom. What did Ofcom  
24 say about this in its skeleton argument? Could I ask you to turn it up again, this time we  
25 are looking for para. 73, p.38. It is paras. 73 and 74. What it says is that once an  
26 ACQ/CDB solution is in place it will be possible for a new recipient network by notifying  
27 a change to the CDB to provide information to other UK networks' call routing systems  
28 potentially within a very short time as to the fact a number has been ported. Correct, we do  
29 not disagree with that. Any other network checking that number would therefore be aware  
30 the call had to be routed. So far so good. Then it says, accordingly the adoption of an  
31 ACQ/CDB solution is likely to assist the mobile industry substantially in moving towards a  
32 recipient-led faster process.

33 That may be so, but it does not really meet the point, which is there is a whole area here of  
34 costs which do not seem to have been explored and which certainly have not crystallised

1 even now and which, as far as we can tell at least are not allowed for other than perhaps  
2 buried somewhere in this totally broad brush estimate that Ofcom has put in its decision.  
3 Sir?

4 THE CHAIRMAN: No, no, carry on. I obviously look as though I am thinking, which I am,  
5 from your hesitation. I was actually thinking, as you hesitated, about an analogy between  
6 transferring mobile phone providers under a much faster system and the capacity to transfer  
7 credit card balances, and the potential for fraud by consumers at the time of transfer –  
8 plainly the abandoned provider, if I can call them that, has an interest in the terms of their  
9 contract (if it is a contract) being completed.

10 MR. WARD: Absolutely.

11 THE CHAIRMAN: I have not read anywhere in all the material I have read anything about how  
12 that is proposed to be dealt with.

13 Also, whilst I am speaking, I might as well say this too: there are various references to  
14 what I think is called “Save Activity”, and the inference that Ofcom seek to draw, I think,  
15 and I will be corrected by Mr. Saini if I am wrong, is that save activity is somehow a bad  
16 thing. I suppose it will be possible to argue that save activity is a pro-competitive practice  
17 potentially because, for example, it gives the provider the opportunity to ring you up and  
18 say, “We will give you a new phone”, or, “We will put you on to a better tariff”, or  
19 something.

20 MR. WARD: Sir, it is not only possible to argue that, we are indeed arguing it, as is, in  
21 particular, Orange, who I know are going to focus on that issue.

22 You are right, on the first point you raised which is, “Has Ofcom thought about any of this  
23 at all?” we will see in a moment when we come to it that they did actually acknowledge  
24 that this problem may exist, what one might loosely call “contractual fraud” type  
25 difficulties. Its answer was to say again, “Industry, go away and come up with a solution  
26 to it”, which again begs the question, “How and how much?” Any time you say, “Industry,  
27 solve a problem”, you are also saying, “Industry, please spend some money”. If I may, I  
28 will come to that very shortly.

29 PROFESSOR STONEMAN: Just before you go back to it, you have raised a number of  
30 possibilities here with respect to fraud and misrepresentation, etc, and, fine, they are points,  
31 but we need to know that they are quantitatively significant. Given that Ireland has already  
32 gone to two hour porting, were they significant in Ireland?

33 MR. WARD: Sir, we do not know.

1 PROFESSOR STONEMAN: If they were not significant in Ireland, perhaps we do not need to  
2 take account of them.

3 MR. WARD: One might say that one could usefully enquire into it. Miss Bacon says she knows  
4 a bit more about that.

5 PROFESSOR STONEMAN: We are not leading the world here. We are following on other  
6 countries that do have recipient led porting and almost instantaneous porting. What you  
7 are raising is theoretical possible objections where there must be some sort of evidence out  
8 there as to whether these are significant or not.

9 THE CHAIRMAN: Without lowering submissions to debate I think Miss Bacon ----

10 MISS BACON: I was going to come on to it tomorrow, but I can answer the question  
11 immediately. I asked my clients whether this was a problem in Ireland, and I am told it is  
12 simply not a problem there. We do have a problem in the UK, but slamming and mis-  
13 selling is not a problem in Ireland. We do not know why. Maybe it is a cultural difference,  
14 maybe it is a technical difference, but it simply has not arisen as far as ----

15 THE CHAIRMAN: The Irish are so honest!

16 MISS BACON: That is the information I have been given by my clients.

17 THE CHAIRMAN: Mr. Kennelly may be able to help us!

18 MR. WARD: There is a partial answer. Would you turn up bundle, which contains the pleadings  
19 and the witness statements, and go to tab C, which is the Vodafone materials, at tab B is  
20 Mr. Roche's second witness statement that we have looked at. He exhibits an email behind  
21 a tab numbered 1 from Don Wilson, UK Regulatory. He talks about both Ireland and  
22 Australia experience. If you see at the second hole punch he makes the point that Ireland  
23 and Australia introduced their current solutions from scratch following a previous partial  
24 number portability system, this is a very different context, no cost/benefit analysis was  
25 conducted in Australia, while in Ireland the cost benefit analysis did not reflect the eventual  
26 "gold plated" implementation. Then it says:  
27 "As we understand it, the much vaunted '2 hour' lead time in Ireland stemmed  
28 from the previous partial solution to MNP. However, this ignores validation  
29 checks that need to take place before a port is sanctioned – see, for example, the  
30 forms 3 Ireland requires customers to complete in writing and return by post  
31 before a port date can be agreed ..."  
32 Then at the bottom of the page he also says:

1 “No, in the experience of our Irish colleagues, is the current regime in Ireland  
2 robust against mis-selling. Recipient provider incentives to promote porting seem  
3 to be heavily influenced by Irish number allocation arrangements ...”  
4 and so on and so forth. In other words, there is at least an indication on that. In a sense, it  
5 perhaps reinforces a point I made earlier about the caution one needs to exercise in drawing  
6 these kind of analogies.

7 Either way, we have a problem here. Actually, in fairness to Ofcom, as I said, it did  
8 acknowledge the problem existed. It did. It just said, “You, industry, go away and fix it”,  
9 to which we say, “At what expense?”

10 That is all I wanted to say about costs. I now wanted to turn to benefits, and for this, if we  
11 can, I would like to pick up the decision again, this time at p.36. What is said at para.3.107  
12 is:

13 “The UK’s current donor-led process for porting mobile numbers is very unusual.  
14 Almost all comparable countries use a recipient-led process which, as explained in  
15 the following paragraphs, tends to be more consumer friendly and less likely to act  
16 as a deterrent to recipient providers promoting the advantages of porting. The  
17 current donor-led process offers both benefits and disadvantages.”

18 We will come back to that. At 3.108 it says:

19 “Furthermore, the risks to recipient providers presented by the current process are  
20 such that the process acts as a major disincentive to promote porting.”

21 So the argument is, in effect, that the recipient network will not want to mention the  
22 possibility of porting a number because it puts the customer back in touch with their old  
23 network, and they are worried about the kind of save activity that Lord Carlile pointed to  
24 moments ago. In other words, the new network will be very reluctant to ever raise this as a  
25 possibility.

26 Then it is very important to see what else Ofcom said about this. I have lost the reference.

27 THE CHAIRMAN: Were you looking at the first three lines of 3.109?

28 MR. WARD: I am sorry, I wanted to go back. I thought I was on the right page, I am not. The  
29 question then is, what is the evidence that there really is a sort of deterrent effect on  
30 switching arising out of this whole process of number portability? Ofcom conducted some  
31 market research to look into this question. It summarises its findings at 3.97. It says:

32 “The extent to which lengthy or complex porting process, or low awareness of the  
33 right to port, deter consumers from switching is less easy to quantify.

34 Quantitative market research is not generally a reliable tool for gauging

1 consumers' likely behaviour in a hypothetical situation. To the extent that porting  
2 processes (and awareness of the right to port) do deter switching, this will weaken  
3 competition ...”

4 although so far of course that is hypothetical. Then it says:

5 “... to the detriment of consumers, as well as disadvantaging individual  
6 consumers who may fail to take advantage of offers which are more attractive to  
7 them. Broadly speaking, consumer satisfaction with retail mobile services is high  
8 ...”

9 And if you look at the footnote:

10 “92% of mobile users are satisfied with the overall service, with 41% very  
11 satisfied.”

12 Then it goes on:

13 “... and, reflecting this, Ofcom's February 2007 Market Research found that more  
14 than 60% of mobile phone users had never switched and that 90% of those had  
15 never even considered switching. Only a small minority of consumers, therefore,  
16 have considered switching mobile provider and been deterred from doing so. The  
17 volume of surveyed customers who fall into this base group, a proportion of  
18 whom might have been deterred by issues to do with number portability, is too  
19 small to support robust conclusions ...”

20 I will show you that in a moment. Then it says, having concluded that there is no evidence:

21 “Nevertheless, as set out in Annex 1, Ofcom considers it reasonable to conclude  
22 that the improvements to arrangements for porting mobile numbers may increase  
23 the propensity of some consumers to switch ...”

24 The underlying evidence is, in effect, at tab 15. There are two sets of market research, but  
25 the bit that is really being referred to here, I think, is Tab 15, p.86. You will see in the  
26 middle of the page ‘Non-Switcher Behaviour’. So, these are the people who have not  
27 switched.

28 “The large majority of mobile ‘phone users who have not switched in the past year  
29 have no interest in doing so. Just 11 percent have considered it. Of those that did  
30 consider it, three in ten said they took no steps”.

31 Then, at p.A6.22,

32 “Of all those who have considered switching in the past year, a third report that  
33 their current provider offered them a better deal to dissuade them”.

34 So, that is the save activity.

1                   “The most common offers included an upgrade handset, extra call minutes, and  
2                   reduced line rental”.

3                   Then, this is the part really which is the sharp edge - 624.

4                   “Among the small group of thirty-seven respondents who actually took steps to  
5                   switch, but still remain with the same provider, the most common reasons for not  
6                   switching were linked to not being able to find a cheaper deal elsewhere. Only  
7                   three mention the inconvenience of switching, such as changing numbers or  
8                   codes”.

9                   So, that is why Ofcom rightly concluded that it could not sensibly rely on this evidence.

10                  Instead though, what it has done is to just say, “It is a reasonable assumption that  
11                  notwithstanding the lack of evidence, there is still this deterrent effect”.

12                  However, it really is not as simple as that because even if you accept - and we would not -  
13                  that this kind of assertion is sufficient for a cost benefit analysis or an impact assessment,  
14                  Ofcom itself recognised that there were also consumer benefits in the existing system. I  
15                  read it to you as we passed through, but if I may just show you again -- At 3.107 of the  
16                  decision it says at the fourth line,

17                         “The current donor-led process offers both benefits and disadvantages to  
18                         consumers”.

19                  So, that of course raises the simple question. “Are they better off overall?” On the one  
20                  hand you have got advantages; on the other you have got disadvantages. Where is the  
21                  balance struck? What we have at the moment is really just an assertion that despite the  
22                  lack of evidence, this would be a switching benefit. In fairness, also, it is more convenient.  
23                  Picking up the point about save again, this is actually considered in 3.109. Here you will  
24                  see that Ofcom does recognise that it is a potential benefit. Ofcom recognises that in a  
25                  competitive retail market attempts to persuade a customer not to leave at the point when  
26                  they request to port enabled by the current donor process can generate benefits for those  
27                  activities. In fact, you saw the survey showed that it does. However, it does provide target  
28                  competitive activity on this sub-set, and so on. As argued by Scottish and Southern there is  
29                  different competitive dynamic. That is understandable. But, then again we have one of  
30                  these very curious conclusions couched in the negative.

31                         “Ofcom does not have any compelling evidence to suggest that overall there will  
32                         be a reduction in competition” --

33                  -- not that there is, on balance, a benefit, but just that there is not a reduction.

1 In addition to this, we have the kind of consumer protection issues we have just touched  
2 on. I said to you in argument, to Lord Carlile's point, that Ofcom has actually  
3 acknowledged the force of these points. If you could turn the page to p.38, under  
4 'Consumer Protection. Respondents' views',

5 "BT, Virgin, Orange, Vodafone, O2, the FNP working group warned that  
6 customers would be made more vulnerable to mis-selling as a result of a  
7 recipient-led process".

8 Ofcom did not say this was wrong, or that this has not happened elsewhere. It said that it is  
9 'fair enough'. Its answer is at 3.121.

10 "Ofcom recognises that providers of mobile services will need to ensure that  
11 porting customers are aware that they may face continuing contractual liabilities  
12 towards their existing provider and that robust systems are put in place to protect  
13 against mis-selling and slamming".

14 That is a good idea, but the question is, "What will those systems actually cost?" Of  
15 course, in respect of two hour porting, which I am going to come on to specifically in a  
16 moment, how quickly will those systems take place? If they have to take place very  
17 quickly, is that going to cost extra? I am asking these questions rather than offering  
18 answers because there are no answers at all to any of these questions in this document.  
19 So, what we are left with is a kind of assertion by Ofcom, despite what it said in its survey,  
20 that somehow there is going to be a benefit from this, an acknowledgement that there are,  
21 in a sense, detriments to set against the benefit -- I am not even talking about the quantified  
22 costs. Then, an overall conclusion that, "Well, we should do this because [as it says in his  
23 skeleton] it is just self-evident that consumers are better off". Well, we say it is not self-  
24 evident, and it needed to be looked at properly.

25 In fairness to Ofcom there is another aspect to its cost benefit analysis under this head - that  
26 is, it made an effort to identify some quantified benefits that would flow from recipient-led  
27 porting. If I can take you to p.66 through to p.67 -- Basically, I suppose one could  
28 summarise them as savings that consumers somehow might make through recipient-led  
29 porting. Our overall point about these is that they are just fantastically speculative. They  
30 are built upon assumption after assumption. Rather than take you through them I want to  
31 just show you one at A1.72, at the bottom of p.66. This is supposed to be savings to  
32 consumers who would in any event have ported their number. Here is how the reasoning  
33 goes,

1 “Approximately 3 million consumers currently port their number each year. A  
2 proportion of those will be unaware of the need to obtain a PAC [that is the code  
3 from your existing operator] before selecting and contacting an alternative  
4 provider, and may therefore waste time and money in having to make a repeat  
5 visit to the chosen new supplier before and after obtaining a PAC. Ofcom has  
6 been unable to determine precisely how many of these consumers who port each  
7 year are affected in this way and what cost each incurs as a consequence. A very  
8 small sum - for example, a £1 bus fare - incurred by just 30 percent of porting  
9 customers (90,000) would, however, offset in just one year around one-fifth of  
10 the cost of implementation”.

11 With the greatest of respect, that is called ‘making it up as you go along’. There is nothing  
12 there at all that one could sensibly describe as empirical analysis. It is all based on this idea  
13 that mis-informed consumers go out on wasted journeys without their PAC codes. But, I  
14 suppose you might say equally under the new system that mis-informed consumers will go  
15 on wasted journeys to their old providers in order to ask them for the PAC codes that they  
16 do not need any more.

17 So, all of this, we say, just does not get them home. If they wanted to do this kind of cost  
18 benefit analysis - as indeed they had to do to make the impact assessment sufficient - it  
19 needed to be done properly.

20 Finally under this head, very briefly, the benefits of two hour porting. It is very important  
21 not to lose sight of the starting point here, which is that in its July 2007 consultation paper  
22 Ofcom actually included a decision as well as a consultation which was that operators  
23 would be required to move from five day to two day porting by March 2008. For your  
24 reference that is at Tab 15, p.56, para.7.2. So, for about two months now we have had two  
25 day porting instead of five day porting. But, Ofcom did not wait for this change to take  
26 effect. It jumped the gun and said, “Well, even before that change has occurred, we are  
27 going to require two hour porting from 2009.

28 Our short point here is that there really is nothing to show that there is additional benefit  
29 from the additional cost of doing it in two hours rather than two days. In the decision at  
30 A1.83, p.69, it says,

31 “It is not easy to quantify with a reasonable level of confidence the level of  
32 benefits to be derived from a mobile process which is near-instant as well as  
33 recipient-led”.

1 Well, not easy, and actually not attempted - in a nutshell. Nowhere in here is any tangible  
2 benefit identified that will flow from two hour porting rather than two day porting. It has  
3 just asserted that it is actually self-evident that it is better. In fairness, Ofcom also point to  
4 their survey, which said that people who did port and did switch would like to do it more  
5 quickly. But, the difficulty with that is that it does not show any actual tangible benefit  
6 against which one could start to weigh costs, and this is a point which is really developed  
7 by Orange, and I do not want to steal Miss Demetriou's thunder on this, but essentially just  
8 as in the case of recipient-led porting there are costs as well as benefits to the consumer  
9 – pros as well as cons about the risk of fraud and the loss of opportunity to change your  
10 mind, and so on and so forth. So the mere fact that in the survey some consumers said  
11 “They would be even better if it would be even quicker”, rather like the internet I suppose.  
12 It does not show there is an actual benefit here that one can articulate and sensibly weigh  
13 against the costs. Ofcom's defence is essentially it does not need any evidence, because it  
14 is all self-evident. We say that is not sufficient, this is supposed to be weighing of costs  
15 and benefits for the purpose of an impact assessment which is required by statute. That is  
16 all I was going to say except for one brief point about something raised by H3G.  
17 One of H3G's points is that somehow the decision can be saved because the current regime  
18 has an effect on competition which is adverse to H3G, and basically the argument is that it  
19 is put at a disadvantage by onward routing, because it charges a higher mobile termination  
20 charge than other networks, and when it forwards a call that gets passed on less the donor  
21 conveyance charge, and it says in effect that this distorts competition between the  
22 operators. It effectively is arguing, as we understand it, that this point can somehow save  
23 the cost benefit analysis because it prays it in aid, as we understand it, in respect of onward  
24 routing itself.  
25 We say that is completely wrong for three reasons. First, H3G's points are about borders  
26 as between operators, in the sense that they are complaining about a transfer from H3G to,  
27 say, Vodafone, so it is an allocation of termination charge and donor conveyance charging  
28 as between the operators. But the cost benefit analysis is about the costs of the industry  
29 versus the benefits to consumers in effect.  
30 Of course, distortions of competition can filter down into consumer detriment, I would not  
31 dispute that for a moment, but what we have here is a quantified cost benefit analysis that  
32 looked at industry costs versus consumer benefits, without looking at much broader  
33 questions of competition, questions of competition which even H3G has made no attempt  
34 to quantify in terms of consumer detriment.

1 The second point that is very important is that Ofcom actually specifically put all of this  
2 aside when it made its decision. Can I show you para.3.26 in the decision, p.21. It seems  
3 as though H3G made these points to Ofcom in the course of its consultation – I confess that  
4 is an assumption. The last four lines of para.3.26 say:

5 “Ofcom has not considered whether the current arrangements for the payment of  
6 termination charges should or should not be subject to change. However, Ofcom  
7 notes that when direct routing is in place the recipient network would receive its  
8 own termination charge.”

9 The reason why it says it has not considered it is no doubt in part because Ofcom was  
10 considering it but, albeit, under a completely different head, and this is all explained in the  
11 witness statement of Mr. Rodman, and in essence the story is as follows. There is a series  
12 of appeals which began in front of the Tribunal on the question of mobile termination  
13 charges and the controls. The issue as to the level of the charges has actually been referred  
14 by the Tribunal to the Competition Commission, so that is now live before the Competition  
15 Commission.

16 In the judgment at tab 17 we looked at in opening, the CAT has actually rejected H3G’s  
17 contention that the number portability regime in particular puts it at a competitive  
18 disadvantage that would justify it being taken out of the current price control regime. But  
19 also, as you can see from that decision, and from Mr. Rodman’s witness statement, Ofcom  
20 actually has a separate consultation process up and running, as to whether or not there  
21 should be changes in the charge control regime to take account of H3G’s concerns.  
22 That, we say, is of course the forum in which H3G’s concerns should be looked at, but  
23 what has actually happened is that Ofcom has put that on hold pending the resolution of  
24 H3G’s various appeals. H3G has now added into the mix an application to Ofcom to  
25 resolve a dispute in the technical language of s.105, between it and the other operators as to  
26 the rates of termination charge. So these issues are all being dealt with elsewhere, and  
27 H3G, as it frankly says in its submissions somewhere – actually these are not its words – it  
28 is litigating this point everywhere it can. That may be so but even if its point is right, it is  
29 not a point which arises in this appeal because the primary question here is, is Ofcom’s  
30 analysis sufficient? And a broad competition point which, whether it be good or bad – and  
31 Vodafone I should make clear does not accept the merits of it anyway – cannot somehow  
32 save the cost benefits analysis which is done on the basis of quantified factors.

33 The third overarching point which really follows from that is even if, having heard what  
34 H3G say about this, you decide that there is something in their points, that Ofcom should

1 have considered as part of its cost benefit analysis, then we respectfully submit that that is  
2 something that they should raise when and if the Tribunal decides to remit it; it is not  
3 something that can somehow save the decision which was taken without regard to that, and  
4 which you are asked to consider in this appeal.

5 MR. WARD: Unless I can assist further, those are the submissions for Vodafone.

6 THE CHAIRMAN: Thank you very much indeed, Mr. Ward.

7 MR. WARD: The next thing is witness evidence. We have been told that both Mr. Sutherns and  
8 Mr. Roche are to be cross-examined, both by Ofcom and then, presumably, if necessary,  
9 separately by H3G, and with the Tribunal's leave what I will do is call Mr. Sutherns.

10 THE CHAIRMAN: Please do. (After a pause) Mr. Sutherns, please do make yourself as  
11 comfortable, as you already have. You have a softly spoken voice and we are all up here  
12 of an age at which we need to hear you, and the microphone is on now. Could you keep  
13 your voice up, there are a lot of interested parties right at the back of this very large room.

14 Mr. TIMOTHY PETER SUTHERNS, Called

15 Examined by Mr. WARD

16 Q Mr. Sutherns, could you state your full name and address? A. Timothy Sutherns,  
17 Vodafone House, The Connection, Newbury.

18 Q Do you have in front of you the witness statement of Timothy Peter Sutherns? A. Yes, I  
19 do.

20 Q Is that your witness statement? A. Yes, it is.

21 Q Are its contents true to the best of your knowledge and belief? A. Yes, they are.

22 Q I would like to ask you a very few questions which arise out of points raised by Ofcom for  
23 the first time in its skeleton argument, I assure you there are very few. Could I ask you to  
24 turn up Ofcom's skeleton argument, which is in the bundle marked volume 3? Do you  
25 have that? A. Yes.

26 Q Could you turn to p.27 – have you seen this document before? A. Yes, I have.

27 Q Could I ask you to look at para.43? You will see there the suggestion is made that  
28 Vodafone could avoid the expense of extra switching capacity arising out of mobile to  
29 fixed porting by using a transit network. Do you agree with that suggestion? A. It's  
30 theoretically possible, but I don't think Vodafone would want to do so technically or  
31 commercially.

32 Q Why not? A. From a commercial point of view, we would be under a regulatory  
33 obligation to do it and we would have a limited number of transit operators making the  
34 service available to us. That's the sellers' market. We'd have to pay whatever they

1 demanded. They also know how much it would cost us to do it ourselves. From a  
2 technical point of view it means that we would be routing all of the calls out to a third party  
3 network and having it inefficiently onward routed from there, and we would be dependent  
4 for that service on the continued technical and commercial existence of that third party  
5 network which the whole of this decision is supposed to be avoiding. We would also have  
6 the issue that Vodafone's a fixed network provider as well as a mobile network provider,  
7 so we would be routing out all of these calls. We would be asking this transit operator to  
8 do the look up for us and to trombone the calls straight back to us in the case where we're  
9 the fixed network. So we would need a bigger pipe and that costs more money.

10 THE CHAIRMAN: Could you just give the Tribunal an idea of how many transit operators there  
11 are in the market and their general size? A. I couldn't in great detail. The two that are  
12 frequently quoted are BT and Cable & Wireless. There may be other players. I would go  
13 to one of the others colleagues in Vodafone if I needed more information on that.

14 Q Thank you.

15 MR. WARD: Would the use of a transit network alleviate the need for look up? A. The look  
16 up still needs to be done, it is just a question of where that is done. We could do the look  
17 up and then route the call, or we could route the call to somebody, have them do the look  
18 up and then they further route the call. The look up and the hardware needed to do it is the  
19 same.

20 Q The large item of expense that you identified in terms of additional switching capacity, is  
21 that switching capacity in respect of look up or the routing? A. That's for doing the look  
22 up.

23 Q Could you please turn on to para.68 of the skeleton argument. This is a point which I did  
24 not cover at all in opening. It is one of the points of detail about donor network failure. It  
25 relates to SMS messages sent from abroad. At para.68 of Ofcom's skeleton it says:

26 "At paragraph 19 of *Sutherns* it is stated that SMS messages sent *from abroad* to  
27 UK ported numbers will not work. That is not correct. It is SMS messages *from*  
28 *mobile phones which are not registered to a UK network* to UK ported numbers  
29 that will not work."

30 Do you agree with what Ofcom says in that sentence? A. No, I don't, I think they've  
31 chosen to misinterpret what I have said and then to basically pull apart what they chose to  
32 read, not what I actually said. What I said was very much aligned to the NICC consultation  
33 document. I would also just like to add on that one, it isn't just SMS, what I am referring  
34 to here is non-call signalling that carries many services for customers, of which SMS is one

1 service. Other services would include things like location services or MMS, multi media  
2 messaging.

3 Q Just so we understand what your evidence is, is Ofcom correct – never mind if it has  
4 misinterpreted your evidence – is it correct to assert that it is SMS messages from mobile  
5 phones not registered to a UK network that will not work. In other words, the fact that a  
6 phone is not registered to a UK network – is that correct? A. Yes, it is not based on the  
7 location of the subscriber, it is based on the location of their home network. If it's a  
8 member of your family that has chosen to go abroad that is not covered by my case, but if  
9 it's a work colleague who works for an overseas branch of a multi-national company then  
10 that would be covered in this case.

11 Q I want to ask you a question about one thing in H3G's skeleton argument, which is under  
12 the next tab. It is para.63, which is p.17, and this is my last area of questioning. It is  
13 talking here about whether or not there is a need to obtain additional capacity to do look  
14 ups, and you have given evidence that Vodafone will require considerable extra capacity.  
15 It says:

16 "... Mr. Baxter states clearly that this will not involve additional costs for H3G  
17 because as '*H3G will no longer need to do "look-ups" for inbound domestic  
18 mobile calls, the capacity freed up can be used for the fixed "look-ups".' Thus  
19 H3G has sufficient capacity in its hardware (switches) for this increased work. It  
20 should be noted that Vodafone has completely ignored such capacity savings ..."*

21 Do you think there would be capacity savings for Vodafone? A. There is a very minor  
22 capacity saving, which I will elaborate on in a minute, but in the scale of the things it's a  
23 drop in an ocean and insignificant. The additional look-up that we need to do is of the  
24 order 1,500 per second, and is an expensive look up because of the different technologies  
25 which I cover in my witness statement. So that's 1,500 of an expensive look-up. The  
26 figures I analysed for this particular saving would amount to 75 per second on a much  
27 cheaper look-up intended for mobile location and mobile call routing. So it's basically 5  
28 per cent, 5 per cent of the volume but for a much cheaper service too. I estimate 2 to 3 per  
29 cent of the total processing load.

30 MR. WARD: Thank you, I have no more questions, but please wait there.

31 THE CHAIRMAN: Yes, Mr. Saini?

32 Cross-examined by Mr. SAINI

33 MR. SAINI: This will put us into confidential territory and I am sure the others will remind me  
34 if I am asking you questions where you need to give your answer in private or perhaps in

1 writing. I will try and avoid as far as possible. Can I, first of all, ask you about your  
2 involvement in the consultation process leading to the decision which is being challenged  
3 before the Tribunal. Were you involved at all in assisting Mr. Roche, who I understand  
4 was the primary respondent on behalf of Vodafone? A. I have been involved in various  
5 stages of the consultations. As I explained in my witness statement, my role is not  
6 primarily to do with mobile number portability. I get pulled in as a network expert and  
7 because of particular technical knowledge to support that. So the particular consultation  
8 stages that were going on were not something I was greatly involved with. If you said, was  
9 I involved in the July consultation or with Sagentia, or whatever, the answer is I don't  
10 know. I was answering specific questions at specific meetings with my colleagues, in  
11 particular with Don Wilson.

12 Q You may not have specific knowledge about this and I may have to ask Mr. Roche these  
13 questions, but were you ever asked during this period of the consultation leading up to this  
14 final decision last year about the cost to Vodafone of implementing what was then a  
15 provisional decision under discussion? A. We tried to come up with some scale of  
16 estimate, because clearly this was a very big change. The problem was the specification is  
17 so vague that any number is just plucking a number out of the air. Whatever number we  
18 could have quoted would have been open to challenge of either, "You're quoting an  
19 unrealistically large number, where's the back-up, where's your justification for that  
20 number?" or we're quoting a number that wouldn't actually pay for what you need to do.  
21 Even now, the specification is still very vague, but over the last six months a great deal  
22 work has gone into tying down what that specification is to the level that at least three-  
23 quarters we can start to cost.

24 Q So did you ever provide Mr. Roche with a specific figure, even a ball park figure?

25 A. I'm trying to think what figure – the only figure I can think that was actually quoted  
26 was £20 million for the switch capacity alone.

27 Q Do you have any rough idea as to when you would have discussed that matter and  
28 communicated it to Mr. Roche? A. Towards the end of September.

29 Q That is September 2007? A. Yes.

30 Q You say that the specification is still very, very vague? A. Yes.

31 Q At what point did you become aware that this switching capacity which is going to be  
32 required, or which you say is going to cost a substantial amount of money – I will not read  
33 out the figures you quoted – at which stage did you become aware that that was going to be  
34 an essential element of any solution? A. Well, in the decision it was speculated that it

1 was a necessary requirement ... in September, and early in the year it was likely that that  
2 was needed.

3 Q. Did you use the words £20 million rather than me? So, let us assume that is out. But, if  
4 you can identify please for me in your table at p.11 of your statement -- Do you have your  
5 statement there? A. Yes.

6 Q. I just want to try and get a better understanding of which cost you are referring to here.  
7 A. None of them.

8 Q. None of them. So, the £20 million is not there. If you can educate me and let me know  
9 what the £20 million is? A. If I could explain? When we were looking at the impact in  
10 September we were able to say, "Clearly this is a major impact on the MSC switching  
11 capacity. It's gonna hit this area, this area, this area, and this area. But, regardless of all of  
12 that -- regardless of all the stuff about recipient porting, it's gonna hit the switch capacity"  
13 and that was a major impact which generated the £20 million guesstimate. I say a  
14 'guesstimate' because that is all it was. It didn't come from the capacity planning team. It  
15 didn't come from the official forecasting. It didn't come through Vendor Management. It  
16 wasn't an official figure in any way, which is why I am somewhat hesitant about quoting it,  
17 quite apart from any competitive thing about revealing an actual price, because it was  
18 based on a guess.

19 Coming on to this table then, which was the specific answer then, when we started to  
20 analyse it in more detail and attribute the costs against the specific stages of mobile-only,  
21 direct routing, having to do it in a rush, recipient-led, and then fixed processing, it's a  
22 contribution to the network column for the fixed porting line ----

23 Q. For the bottom one? A. The bottom left - but it is only one contribution in there. There  
24 are others.

25 Q. So, the twenty - without revealing the other figures - is something that at least internally  
26 you have raised in September 2007, you think? A. Towards the end of September, yes.

27 Q. Thank you very much. If you could please turn back in your statement to p.2, para.7 where  
28 you say that, "In 2003, as part of the evolutionary change in the HLR domain, I initiated,  
29 designed and led a project to deliver a Call Trap solution for Vodafone". A. Yes.

30 Q. What were the reasons - and, again, please, tell me if you think this is confidential (or  
31 someone here will indicate to me if you are about to given an answer which should be  
32 given in private) - for Vodafone in deciding to obviously spend some money - and we will  
33 come back to the money in a moment -- What were the reasons for initiating this  
34 programme? A. The programme delivered a whole host of features in that area,

1 specifically on the call trap. The advantage was the saving on the DCC which at that time  
2 at least was 0.8 pence per minute. It may have reduced - I do not know.

3 Q. For a ball park figure, can you tell me what you considered the saving was? Was there a  
4 cost benefit analysis that you went through? A. There certainly was. I don't know  
5 whether I can say what the figure is. I can say that we were very pleased with the result and  
6 that we felt the result was better than the original business case of deciding to do it.

7 Q. Perhaps in due course - not now - you would write down the figures for us, just in terms of  
8 -- I appreciate what the accrued figure in terms of cost as against perceived benefits ----

9 A. Am I allowed to ask for guidance on whether I can just state the figure?

10 THE CHAIRMAN: It might be simpler just to write it down.

11 MR. SAINI: You can write it down and then we can look at it in due course.

12 THE CHAIRMAN: As you have been invited to -- Do you want to do that now? (After a  
13 pause): As long as you are happy with this process for keeping the figure confidential it is  
14 much quicker than emptying the courtroom. (Answer given in writing).

15 MR. SAINI: We will just have a quick look at that and then I can leave it with the Tribunal.

16 (Same handed) The figure you provided there ----

17 THE CHAIRMAN: Just hold on. If we are to know this figure, I think we had better see it  
18 before you ask any more questions. (Same handed) We cannot read his writing?

19 MISS ROSE: I am not sure whether that is a net figure? It is not clear. A. That is the benefit.

20 MR. SAINI: That is the net benefit. A. No. No. Sorry. That is the benefit of achieving call  
21 trap. The overall project delivered a whole host of things. In fact, it's still delivering.

22 Q. Is that an annual benefit? A. Yes. It's per year.

23 Q. Perhaps you could write down for us the cost of achieving that .... A. I can't for three  
24 reasons, and I'll elaborate these. Firstly, the call trap feature was one feature of a major  
25 programme that started in 2002, and still has not finished, delivering a whole host of  
26 things. The project is called "SCCP Relay and HLR Consolidation". So, to try and split out  
27 the cost elements of that particular delivery can be very difficult. The second aspect is that  
28 Vodafone are slightly unusual in the respect that at the time we developed our own  
29 platforms. So, we have a structure where we're basically paying for a software  
30 development team whether they're doing anything or not. We're not paying a vendor for a  
31 license or for hardware. That means that the costs are very hard to attribute. If the team  
32 weren't developing that, well, they'd've been there -- Maybe they'd've been looking at  
33 something else. Maybe they would've been kept idle, waiting for something. Who can say?  
34 Then, the third aspect is that the only way it was practical to develop call trombone was to

1 develop the functionality on an existing platform that was doing something else, which  
2 makes it easier to develop that call trap functionality because all we basically had to do was  
3 develop the software. The hardware was already there, doing something else. But, it makes  
4 it harder to then adapt that to do a CDB because what it is doing at the moment is entirely  
5 compatible with the current porting process. What it's doing at the moment is entirely  
6 incompatible with a download of data from the CDB. So, we can't just adapt it as it is. We  
7 need to effectively re-engineer it totally and have two separate databases - one for its  
8 current function and one for the new CDB function.

9 Q. Can I ask you two questions about this? I will come back to the question of the costs and  
10 ask you to give an estimate subject to the qualifications that you have made. Just on the  
11 last point, would you say that the call trap functionality was incompatible with a CDB  
12 system of the type that is now under debate? That is what I understand your point to be.

13 A. The particular call trap implementation we have is integrated with another function,  
14 known as HLR Mediation Function - which your technical people may appreciate. I believe  
15 Orange have something very similar. Now, that is fine providing the data feed for the two  
16 bits of information come from the same place, which they do today - it all comes out of  
17 provisioning, whether it be a new connection or a disconnection, or whether it is a porting  
18 process coming through the existing porting. It all comes down from our existing  
19 provisioning system into the single database. To adapt that into the CDB we need to split  
20 the two because the provisioning system will be completely asynchronous to the feed from  
21 the CDB. The CDB will demand us to make a change to our routing mechanism within  
22 twelve minutes. That's the requirement.

23 Q. Can you repeat that? Please bear in mind that we do not have your expertise. We are mere  
24 human beings here. A. The regulation for the two hour porting allocates certain time  
25 periods to each stage, and when a change of routing reflecting a change of network is made  
26 to the central database there is a twelve minute time period by which time all networks  
27 must activate that change in their network. So, in effect, it means that the data coming  
28 down from the central authority to our network must be activated within twelve minutes.  
29 That is fine, but it also has to be compatible with the changes coming out of our  
30 provisioning system. That is two different feeds of information that are linked together.  
31 In simple terms, we have the problem of what happens if one of our subscribers moves to  
32 another network? We have one bit of information coming from the CDB saying, "This  
33 number is now on Hutchinson 3G" and that sometime either before or after that we have a  
34 separate information coming out of our provisioning system saying, "This guy's gone.

1 Disconnect him”. In which order do we do them? Because they are completely  
2 asynchronous we have to separate that data. That is why the call trap that we currently  
3 have needs significant work to cope even with the mobile direct porting.

4 Q. Did you let Mr. Roche know that when he was responding to Ofcom? A. No. That  
5 particular facet only came out of the detailed design about ten days ago.

6 Q. So, that is not something you were aware of previously? A. No. No. And it’s not in my  
7 witness statement either.

8 Q. Going back to the question I asked you previously, which was the question of the cost,  
9 could you please write down for us the cost subject to your qualifications? A. I’m sorry.  
10 I can’t. I’m not trying to be difficult on this. I simply don’t know. It’s a big software  
11 development and what cost elements go into it -- Some of them were contractors. Some of  
12 them are permanent employees. Some of it is capex opex. I couldn’t even invent a figure,  
13 to be honest. If it’s appropriate for Vodafone to give a figure, then we’ll have to take it  
14 away and get it out of the financial people, from the project reporting I imagine it is all  
15 costed against ----? A. Please understand that I was the technical architect for this, I was  
16 not the project manager.

17 Q I understand that. Perhaps I can see if you can assist me with this, because of the figure  
18 you have helpfully provided we know the figure of the net annual benefit. On a modelling  
19 basis could you estimate the amount of money you had spent to derive that net annual  
20 benefit? A. Well you are asking me to try and predict what may be a reasonable  
21 business case. I worked very closely with a business analyst at the time who put the  
22 business case together, which contained things like the discounting rate so the benefit over  
23 five years was factored in. I could speculate.

24 Q Perhaps you can do that for us, perhaps you could write down a figure if you can. Perhaps  
25 I should just explain to you, and that may assist you, there has been a modelling exercise  
26 undertaken here by Sagentia and others, how much one would spend to avoid DCC, you  
27 understand that. We understand that you were willing to spend a certain amount of money  
28 which you may be able to estimate to avoid a DCC keeping a net benefit, which you have  
29 identified. Do you understand that?

30 THE CHAIRMAN: Mr. Ward?

31 MR. WARD: I am sorry, I am not enthusiastic about Mr. Saini inviting the witness to speculate  
32 as to what the costs will be, he has made it clear he does not know, and he has also made  
33 clear he is from the technical side of the business rather than the financial. It is hard to see  
34 how the Tribunal will be assisted by a mere speculation on his part.

1 MR. SAINI: Sir, if the witness believes he can give an answer, then we will see what the answer  
2 is.

3 THE CHAIRMAN: If you feel that you can give an answer that is sufficiently solidly founded  
4 to assist us, please do give it, you should answer Mr. Saini's question. But if it is  
5 guesswork beyond a "guesstimate" as you called it, then you probably should not? A. I  
6 would like to be helpful but in all honesty I cannot give you a figure.

7 MR. SAINI: And we know from Mr. Roche's evidence, and you may or may not have read this,  
8 that he believes that there were effectively 30 per cent of calls which would otherwise go  
9 through a normal onward routing system are taken out by call trap? You recall that figure?  
10 A. I have seen the graph where it drops from 17 per cent down to 13 per cent, yes.

11 Q Sorry, not 30, I should have made clear, 30 per cent are captured, three zero? If you do not  
12 know ----? A. I would not argue with the number, it is a significant number of calls, it  
13 was probably more calls than we expected, when we developed it, but if you are asking me  
14 to agree to 30 per cent, no, I could not.

15 Q It is just something that is in Mr. Roche's evidence. So just to be absolutely clear, when  
16 Vodafone made a decision that you are leading on this as is the case in para.7, that to save a  
17 certain amount of money every year by way of DCC you are willing to invest a certain  
18 amount of money. Do you agree with that? A. Yes.

19 Q And the DCC you were effectively saving was not the entire DCC but you were taking out  
20 30 per cent potentially of the calls? A. Of the calls that we trombone avoid we save the  
21 DCC that we would otherwise be paying.

22 Q We will see when Mr. Roche gives evidence if he can help us any more in relation to the  
23 costs of that exercise. Can I ask you about UKPorting, please, para.9 of your statement?  
24 A. Okay.

25 Q I am slightly unclear reading para.9 and then later on reading para.35 about what precise  
26 involvement you have in UKPorting? A. It is simplest to say when it was clear there  
27 was going to be UKPorting Vodafone was looking around its business for people at an  
28 appropriate level to represent Vodafone, to take an active part in the various UK porting  
29 work streams, and I was asked if I would lead, and I was unable to take that on – I have too  
30 many other things to do – so other people are attending the UKPorting committees on a  
31 regular basis and I support them as best I can with technical guidance, technical  
32 knowledge, assessing what they are proposing, what standards are being defined. I have  
33 attended UKPorting on two occasions, one of them was really like a kick-off meeting just  
34 to try and work out all the activities that needed to be done, and the second was facing a

1 particular skill set of mine to do with migration, the issue of how we actually migrate from  
2 the porting system we have today to the porting system that we will have from 1<sup>st</sup>  
3 September 2009 is a major technical challenge, and to do it in a way that does not  
4 jeopardise the stability of everybody's network is still not altogether resolved.

5 Q So you have actually participated in UK committees? A. Yes.

6 Q Can I ask you, please, one final question in relation to the Sagentia report? When did you  
7 first see that report? I will show you the report if it will help you? A. I couldn't  
8 honestly say whether I have seen the Sagentia report in full, or whether I would simply  
9 have consulted with my colleagues on the regulatory side, Don Wilson and others, on  
10 matters to do with the Sagentia report.

11 Q Okay, there is part of the report, and I can turn it up if necessary, which describes how  
12 Sagentia would arrive at the costs for the mobile networks on a CDB, do you recall that?

13 A. No, as I say, I am not sure I have ever seen the report. Unless you want to show it to  
14 me I ----

15 Q I will show it to you just to be fair. Please go in bundle 1, which may be behind you, and  
16 within that to tab 8, please? A. Tab 8 I have "Review of general condition 18".

17 Q Yes, I think it starts like that, and it is within that tab.

18 THE CHAIRMAN: It starts at p.40.

19 MR. SAINI: 39 and 40. (To the witness) Do you have that there? A. I have it in front of me.

20 Q I can see you have it. If you could please go to page 67, the left hand page. If you can  
21 look, on the left hand side you will see "Mobile network upgrade" and then some wording,  
22 perhaps you could just read that to yourself, please? A. (After a pause) I would  
23 immediately disagree with the second sentence.

24 Q I will let you give your answer in relation to that but can I just ask you in stages first, do  
25 you remember seeing this prior to now? A. No.

26 Q So you would not have been shown it by Mr. Roche? A. I may have been shown it, it  
27 may have been in the team room, it has undoubtedly been in the team room for this, but  
28 there are a great many documents and I focussed on the specific ones.

29 Q And you have obviously read the first part, you say you fundamentally disagree with the  
30 second sentence. Perhaps you could just read the rest very briefly? A. (After a pause)  
31 Yes, basically this is an argument, that an all calls query system is just a bigger call trap  
32 system which it is not.

33 Q Whether or not you saw this document, did Mr. Roche ever ask you for your view in  
34 relation to whether or not an ACQ system was merely an extension call trap? A.

1 Whether it was Mr. Roche I couldn't say, but I certainly aired that view before in many  
2 discussions at Vodafone.

3 Q In which time period? A. Well most recently over 2007, but I think even before that at  
4 some previous session, I do recall a meeting, whether it was Sagentia gathering information  
5 or our previous meeting, I do not recall, but I do recall a meeting with some external  
6 consultants coming in, gathering information with a number of Vodafone regulatory and  
7 technical people there and that also fell down the ACQ – well, it does not handle SMS  
8 either.

9 Q So you have always very strongly had this view? A. Yes.

10 MR. SAINI: Thank you very much.

11 THE CHAIRMAN: Miss Rose?

12 Cross-examined by Miss ROSE

13 Q You were asked by Mr. Ward about the question of having a transit operator to transit the  
14 calls, and you said that that would not be acceptable to Vodafone commercially or  
15 technically? A. I said it was unlikely to be acceptable.

16 Q Unlikely to be acceptable. I think you accept that is a possibility? A. I'm a technical  
17 person, I make suggestions or give advice. Ultimately a decision of that magnitude would  
18 be made at board level.

19 Q You have specifically identified two reasons, and I would like to look at each of those. If  
20 we can look at the technical issue, why, in your view, would it be technically undesirable to  
21 use a transit operator? A. Firstly, the issue is to do with capacity. We would need  
22 increased connectivity to that transit operator to cope with the tromboning case. With  
23 Vodafone's aspirations in the fixed mobile convergence, total network provider, all this  
24 sort of stuff, that is only going to increase. It adds delay in as much as you have to route  
25 the call out and wait for the call to come back. So the call set up time is longer. You are  
26 having dependency on another network, which we don't currently have.

27 Q Can I just pause there. What is your concern about dependence on another network?  
28 A. It's exactly the case that's portrayed, technical or commercial failure of the other  
29 network.

30 Q Of course, the extreme example is the case of the network that collapses, but you might  
31 face less serious issues, for example, congestion on that other network ---- A. Yes.

32 Q -- calls dropping? A. Well, congestion is usually the most likely occurrence, because it  
33 didn't imply any fault, it merely can be caused by customer behaviour.

1 Q Of course, if you are talking about a transit operator you are talking about a commercial  
2 partner, are you not, somebody that you have got a contract with? A. Yes.

3 Q That you have selected to transit your calls? A. Yes.

4 Q The reason that you have selected them is because, first of all, you think they are  
5 financially sound – yes? A. Yes.

6 Q And secondly, you think they are technically up to scratch? A. Yes, out of those  
7 available.

8 Q You gave us a couple of examples. I think the examples you gave were BT and Cable &  
9 Wireless. There are some other players in this market, NTL? A. As I've explained, I  
10 don't know the details of that.

11 Q Opal Telecom, Telewest? A. I would consult with one of the colleagues that deals with  
12 that?

13 Q Very big multi-national companies, are they not? A. If you say so.

14 Q You would be selecting a company that you were satisfied, as you have said, with its  
15 financial and technical viability – right? A. Yes.

16 Q And you would have, of course, a contract with that company, so if their performance was  
17 not unacceptable it could be dealt with within the context of that commercial agreement?  
18 A. Commercial agreements are all very well and penalty clauses are all very well, but that  
19 is after the event. The customer impact has already happened.

20 Q In that situation you would still be concerned that the risks in terms of reliability and  
21 service quality for the customer would not be acceptable to you – is that what you are  
22 saying? A. Yes.

23 Q But of course the problem in relation to onward conveyance is much more serious, is it  
24 not? A. In what way?

25 Q In that situation where you have got ported numbers, the numbers are being ported through  
26 the donor network completely outside your control – that is right, is it not? A. Are we  
27 talking about onward routing or ----

28 Q I am talking about onward routing, the problems of onward routing? A. In the mobile  
29 network?

30 Q Yes, so you have a situation where you have got a customer, your customer, who has got  
31 the number that they originally had from, say, O2? A. Yes.

32 Q And every time they make a call it is routed through O2's network? A. Every time ----

33 Q Every time they receive a call it is routed through O2's network? A. Every time they  
34 receive a call that hasn't originated on our network it routes through O2, yes.

1 Q The problem there in terms of reliability is much greater, is it not, than it is when you are  
2 dealing with a transit operator? A. I wouldn't argue that it's greater, it's the same  
3 problem, and, yes, it is a dependence on another network. In an ideal world one wouldn't  
4 have it. The issue is how much is it worth paying to avoid that problem.

5 Q The problem is this, is it not: you do not have any control over which network your current  
6 customers used to be with, do you? A. That's correct.

7 Q It is not like a situation where you choose your commercial partner and you say, "We are  
8 only going to be dependent on a network that we trust", you are stuck with the people who  
9 have ported their numbers to your network, are you not, from other networks? A. Yes.

10 Q And the network from which they have ported has no interest in that customer now because  
11 it is not their customer any more, is it? A. They have a regulatory obligation to route  
12 those calls. If we had evidence that they were deliberately not doing so then we would  
13 have cause.

14 Q How highly would you rate your chances of being able to prove that – not very? A. Yes.

15 Q This problem is going to be a bigger problem for new entrants in the market than for  
16 incumbents, is it not? A. In what way?

17 Q Well, you are already in this market. We know that 60 per cent of people have never  
18 switched, have they, never switched their mobile operator? A. I wouldn't argue the  
19 figure, no.

20 Q So there is a large bedrock of customers who stay with their network and always have  
21 done? A. There's certainly a large number of people who don't port, but there's also a  
22 very large number of people who connect and disconnect, and whether they're all new  
23 people or whether they are simply allowing one subscription to lapse and moving to  
24 somebody else I couldn't say.

25 Q But if you are coming into a market where pretty much everybody already has a mobile  
26 phone, you have got to get your customers from other players in the market, have you not?  
27 A. Yes.

28 Q Therefore, inevitably a larger proportion of your customer base is going to be people who  
29 have ported their numbers, because that is the pool you are fishing in? A. If you believe  
30 that it is important to the customers that they keep their numbers that would be true, but the  
31 evidence we heard this morning suggests that a lot of people aren't bothered one way or  
32 another.

- 1 Q If your customer base is made up predominantly of people who have switched, more of  
2 your customer base will be people who have also ported, will it not? A. You will  
3 certainly have people porting away from the incumbents, yes.
- 4 Q So I return to my point, that the dependence that you have on other networks over which  
5 you have no control and who have no interest in servicing your customers is going to be a  
6 greater problem for a new entrant to the market? A. That depends on how you argue that  
7 it's a problem, or what your dependence is. If you are looking at the technical failure of  
8 the onward routing then it is only a problem if you can conceive of cases where, in the  
9 example you are quoting, an incumbent such as Vodafone could suffer a technical failure  
10 such that people that have ported were disadvantaged, but calls between that network and  
11 Vodafone customers and Vodafone customers and that network were in no way affected.  
12 That is a very unlikely scenario. I can't think of one, certainly in our architecture, that  
13 would enable that to happen.
- 14 THE CHAIRMAN: Have I got this right, on the technical point you do not see a problem for  
15 new entrants? A. I don't, because ----
- 16 Q Leaving price aside. A. When the faults occur it affects all calls between our network  
17 and the other guys, and the other guys and our customers on our network just as much as  
18 any onward routing. So everybody has got an interest in fixing it really quickly.
- 19 Q Is there any technical disadvantage for new entrants to whom a number is ported as  
20 opposed to old established Orange, for example, to whom a number is ported? A. No, I  
21 don't think so. What one could have argued, or have argued, that video-telephony was a  
22 new service that porting disadvantaged, and as I argue that wasn't a factor of porting. That  
23 was a factor more of the inter-connect, the transit infrastructure available in the UK.
- 24 Q This has already been litigated, has it not? A. Well, it's been solved, yes.
- 25 MISS ROSE: My point was a different one. It was not about there being some different  
26 technical problem for the new entrant but simply that, in the nature of things, a larger  
27 proportion of the new entrants' customer base, people who have switched – right?  
28 Therefore, a larger proportion of their customer base is people who port it – right?  
29 A. Okay.
- 30 Q Therefore, in a situation where you have onward routing the new entrant has a bigger  
31 problem of dependence on other networks than an incumbent operator where only a small  
32 proportion of their customers are people who ported their numbers – that is my point.  
33 A. Okay.
- 34 Q That is correct, is it not? A. Yes, I think I'd agree.

1 Q And yet for you, you are saying that the problem of dependence on a transit operator that  
2 you would have selected as a commercial partner would dissuade you from doing that?  
3 A. Yes.

4 Q The other reason that you gave was a commercial reason? A. Yes.

5 Q. In fact, the transit market is very competitive, is it not? A. Again, I would have to confer  
6 with the technical people that handled the transit negotiations, but I wouldn't disagree if  
7 you say it is.

8 Q. So, you are not really in a position to assess the commercial consequences of using a transit  
9 operator. A. We don't know. Nobody is quoting any prices for offering this service yet.  
10 There is no regulatory framework for it. So, all we can do is work on the basis of what is a  
11 low risk. Committing ourselves to using a transit operator is a high risk.

12 Q. In fact, the look-up service -- Effectively you need the transit operator to do two things  
13 instead of one thing. At the moment they transit the call. On this scenario you would be  
14 asking them to do the look-up as well, would you not? A. We don't necessarily need  
15 them to transit the call today. We might well have direct interconnect. We have direct  
16 interconnect with many mobile operators. We have direct interconnect with some  
17 enterprises. We may well have direct interconnect with fixed operators in the future. So,  
18 committing to use a transit operator for the look-up also commits us to use a transit  
19 operator for the interconnect as well.

20 Q. Well, it does not necessarily, does it? A. How do we do the look-up if you haven't  
21 routed the call to them?

22 Q. Well, they simply do the look-up and send it back to you and you route the call directly.  
23 A. But it's doing the look-up that costs the money.

24 Q. Yes. A. It's intercepting the call.

25 Q. The point I am making is that it does not follow from the fact that they do the look-up, that  
26 they also have to route the call to its destination. A. I'm sorry. It does. The way in which  
27 the look-up is done is that the call has to get to a switch that then performs the look-up. So,  
28 the only way in which you could perform the look-up is either, we perform the hook in our  
29 switch which is where all the money, and the cost, or we route the call to the transit  
30 operator and they have the hook that causes the look-up. But, they've got the call then.

31 Q. But they could send it back to you with a pre-fix. A. Then you could trombone the  
32 whole lot back to us.

1 Q. Yes. A. And then we do a direct interconnect. So, in order to get the benefits of a direct  
2 interconnect, we send everything out to somebody else and they send it back to us. It  
3 doesn't sound a very sensible way of routing.

4 Q. Let us look at the way that we route at the moment in a situation where your call trap does  
5 not operate, where somebody is using a transit operator. Okay? Where there is a ported  
6 number. A. Yes.

7 Q. The call comes in. What happens then? A. A call from outside Vodafone or a call  
8 internal?

9 Q. Internal. I am talking when call trap does not apply. A. Okay. If a call from outside  
10 Vodafone comes into our switch, and because it is the mobile only that we're discussing at  
11 this stage ----

12 Q. I am talking about a situation where you are using a transit operator. A. So that's  
13 Hutchison 3G. We have direct interconnect like everybody else. (After a pause): So, if  
14 this is a mobile-only case, the call will come into Vodafone. We would do the look-up on  
15 the residual database - the SRF function. We would determine that the subscriber has  
16 ported to Hutch. We would then route the call on from the switch based on the IRN, the  
17 routing pre-fix for Hutch. Because we do not have a direct interconnect we would send to  
18 a transit operator.

19 Q. And they would send to Hutch. A. Yes.

20 Q. The commercial point about transit operation -- I think you agree that you are not in a  
21 position to say what the price would be or whether it would be commercially acceptable.  
22 A. Correct.

23 Q. We agree there are a number of players in this market. You are not in a position to say  
24 whether it is a competitive market. Correct? A. Correct.

25 Q. But, we do know, do we not, that the look-up service is something that is offered in Ireland  
26 by BT? Are you aware of that? A. No, I'm not aware of Ireland.

27 Q. Are you aware that BT offers a look-up service at no extra cost to its transit service in  
28 Ireland? A. Okay.

29 Q. You are not aware of that? A. As I say, I'm not aware of the Irish solution.

30 Q. So, you are not really in a position, are you, to express a view about whether it would, or  
31 would not, be commercially viable to use a transit operator? A. I would express the  
32 technical view and how that technical view influences the commercial view, but the transit  
33 people themselves -- Sorry. Not the transit operator, but the people in Vodafone who deal  
34 with the transit operators would express the commercial view.

1 Q. The problem that you have got is with your switches, is it not? A. In terms of the high  
2 cost of doing this?

3 Q. Yes. That is where the cost is. That is where the bulk of the cost is. A. Yes.

4 Q. The problem is that you have got a particular kind of switch which you say finds it hard to  
5 cope with the extra load of the new INAP technology. A. That's correct.

6 Q. Actually, INAP technology at all, is it? A. INAP's ancient.

7 Q. Yes. It is older than MAP A. I will take your word for it.

8 Q. And H3G have been using it in any event. A. We use INAP today for services.

9 Q. You already use it. A. Oh, yes.

10 Q. If we just go to your witness statement, at para. 51,  
11 "The incompatibility of fixed and mobile technologies also incurs a huge cost as  
12 the worldwide standard mobile network routing look-up technologies are  
13 incapable of supporting the fixed routing codes - called Destination Groups -  
14 without using an expensive feature called INAP which is in short supply".  
15 INAP is not in short supply, is it? A. Inasmuch as you can go and buy as many boxes as  
16 you want it is not a problem. It just costs the £20 million -- In fact, the slightly more  
17 accurate figure is actually not blacked out in this copy. So ----

18 Q. INAP does not cost £20 million, does it? A. It's the switch capacity. The INAP inquiry  
19 takes a significant amount of processing capability in the switch. So, when you model the  
20 capacity of the switch on the assumption that all calls will be INAP-ed instead of just the  
21 percentage that are today from the pre-payment service, then the forecasting people inside  
22 Vodafone and inside the vendor -- Basically the forecasting people and the vendor work  
23 together to assess the capacity impact of any proposed change on the assumption that we  
24 move from the percentage of INAP we currently are to 100 percent INAP, which is  
25 required to do the fixed mobile porting.

26 Q. Just pausing. You do not need INAP for the mobile-to-mobile porting, do you? A. Then  
27 you get into the argument of, "Do you want one solution or do you want two solutions?"  
28 Yes, you could have a completely separate mobile solution and a completely separate fixed  
29 solution, and pay for two lots of opex, two lots of interfaces to the CDB, and double  
30 everything for ever and a day. Yes, you could do that. We are trying to simplify a network.  
31 We are trying to reduce opex. We have not fully committed to what the various options are  
32 at this stage. But, we certainly would look unfavourably on providing two solutions  
33 instead of one.

1 Q. But two solutions might be cheaper. A. If I could just finish off on that point -- We also  
2 have the specific issue that the mobile solution must be in by 2009. So, we have to do it a  
3 particular way on a platform that is going to be de-commissioned in 2010. So, regardless  
4 of what else we do, we have this solution that gets thrown away. We then have to do a  
5 fixed solution, no later than 2012, which is the second one. So, we have a choice. We can  
6 either do the fixed solution and extend it to mobile - which means we are only doing things  
7 twice and we only end up with one solution at the end of the day - or we can do a different  
8 mobile solution (not the original one, but a third development). Then we have two  
9 solutions to maintain for ever and a day. We have not done the detailed cost analysis yet.  
10 We are still analysing the specifications, working out exactly what our options should be.  
11 Yes, there are options in varying complexity to reduce capex.

12 Q. So, the option that you have set up ----

13 PROFESSOR STONEMAN: Could I ask a question here? I think I would find it useful if I knew  
14 why I was getting all this information. Could you please tell me where you are going?

15 MISS ROSE: Yes, sir. The point is simply that the costs that have been estimated by Vodafone  
16 are certainly not the only option that is open to Vodafone for implementing the Ofcom  
17 decision. There may be cheaper solutions.

18 PROFESSOR STONEMAN: I will not argue with you that that is a major issue or is not a major  
19 issue, but as long as I know where you are going then it makes some of this relevant.  
20 Thank you.

21 THE CHAIRMAN: Miss Rose, when you reach a convenient moment in about the next five  
22 minutes we will adjourn. We have had quite a long stretch this afternoon.

23 MISS ROSE: Yes, sir. I appreciate that. (After a pause): In any event, the switching problem  
24 arises only because of the decision taken by the NICC that there should be nineteen digit  
25 numbers for routing to fixed calls. Is that not right A. That's correct.

26 Q. That decision was taken in April 2008, was it not? A. The first evidence I had of it was  
27 when our NICC attendee reported back to me in August. I wouldn't have been involved in  
28 NICC. I don't get involved in that sort of thing.

29 Q. There was a questionnaire sent out in August seeking responses to that proposal, were you  
30 aware of that? A. Yes, I assisted Stephanie, our attendee with the response to the  
31 questionnaire and our response was we did not like the 18 or 19 digit proposal. We felt  
32 that it was not compatible with mobile technology, we were not the only mobile people  
33 who said that.

1 Q You did not raise the problem of the increased costs arising from switches in your  
2 response, did you? You did not raise that cost issue? A. I think the first time the scale  
3 of the cost was known was towards the end of September – your previous set of questions.

4 Q You could have considered that question at the time it was raised by the NICC could you  
5 not? A. Yes.

6 Q And if you felt that cost was unacceptable, you could have made it clear to the NICC that a  
7 cheaper solution with a smaller number of digits was necessary for routing to fixed? A.  
8 We did, our attendee said that the solution was not acceptable to Vodafone.

9 Q But not for the reasons that you are now putting forward? A. It was not acceptable to  
10 Vodafone because it is not compatible with mobile, it requires INAP which is expensive.  
11 We had not done the pricing at that stage, but it clearly was not going to be cheap.

12 Q Of course, that solution is not a decision that was taken by Ofcom, is it? A. Somebody  
13 has to write the standards, you cannot set up something like this without a forum whereby  
14 all the operators agree how it is going work, and Ofcom make it quite clear that that is  
15 NICC, but if it was not NICC it would be somebody else doing exactly the same job.

16 Q But the point is the decision made by Ofcom could have been implemented by a means  
17 whereby numbers were routed to the fixed network, and the fixed network then routed the  
18 number to its geographical location, could it not? A. If the fixed networks were  
19 acceptable to that, but the impression I get from the discussions that have been ongoing is  
20 that that is not acceptable to fixed networks, they want to do one look up and have it  
21 routed, based on the geographic location, as early as possible for cost reasons. It is a key to  
22 their efficiency that you have visibility of the end termination location for that line.

23 Q But you see this is something you could have negotiated in the NICC but you did not? A.  
24 Me personally, or Vodafone?

25 Q Vodafone? A. Okay, if you say so.

26 MISS ROSE: Sir, that is probably a convenient moment.

27 THE CHAIRMAN: Thank you very much. I am sorry you will have to come back tomorrow.  
28 We will adjourn until 10.15 tomorrow, please.

29 (Adjourned until 10.15 a.m. on Thursday, 19<sup>th</sup> June 2008)

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