Vodafone, O_2, Orange
and
T-Mobile

Reports on references under section 13 of the Telecommunications Act 1984
on the charges made by Vodafone, O_2, Orange and T-Mobile
for terminating calls from fixed and mobile networks

Volume 1: Summary and Conclusions

Oftel Office of Telecommunications

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Volume 1: Summary and Conclusions

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[1]These members formed the Group which was responsible for this report under the chairmanship of Professor P A Geroski. Mr N Garthwaite was selected by the Chairman of the CC under section 13(10A) of the Telecommunications Act 1984.

Note by the Office of Telecommunications

Certain material has been excluded from this version of the report following a Direction made by the Secretary of State for Trade and Industry to the Director General of Telecommunications acting in accordance with section 14(6) of the Telecommunications Act 1984 as affected by the requirement of the EC Directive on a common framework for general authorisations and individual licences in the field of telecommunications services in respect of the obligation of professional secrecy and certain business secrets.

The omissions are indicated by a note in the text or, where space does not permit, by the symbol ✂.

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Part I

Summary and Conclusions

1 Summary

1.1. On 7 January 2002 the Director General of Telecommunications (the DGT) made two references to us in exercise of his powers under section 13 of the Telecommunications Act 1984 (the Act). One reference concerned the charges made by Vodafone Limited (Vodafone) and BT Cellnet Limited[1] (BT Cellnet), and the other reference the charges made by Orange Personal Communications Services Limited (Orange) and Mercury Personal Communications Limited (One2One[2]), to operators of fixed or mobile public telecommunications systems for the termination of calls to handsets connected to their respective mobile networks. Under each reference, we are required to investigate and report on whether these termination charges would, in the absence of a charge control mechanism on them, be set at levels which operate, or may be expected to operate, against the public interest, and if so, whether the effects adverse to the public interest could be remedied or prevented by modifications to the licences of one or more of the four mobile network operators (MNOs) concerned. The full terms of reference are set out in Appendix 1.1.

1.2. Following a review of the current control of the call termination charges of O_2 (UK) Limited (O_2) and Vodafone, the DGT announced in a press release dated 12 December 2001 that, in his view, mobile termination charges were substantially in excess of costs; and that he had proposed charge caps of RPI–12 each year for four years until 31 March 2006 on the call termination rates, not only of O_2 and Vodafone, whose average charges had been at the maximum level permitted under the cap for the whole period of their existing charge control, but also of Orange and T-Mobile (UK) Limited (T-Mobile), whose unregulated charges had consistently been above those of Vodafone and O_2 over the same period. The four MNOs had objected to the proposed charge controls, however, and the DGT therefore referred the matter to us. Both references are in similar terms and we therefore decided to investigate the two references in parallel, with the same Group of CC members.

1.3. Our investigation concerned the call termination charges which O_2, Vodafone, Orange and T-Mobile levy on each other for terminating calls on their respective networks ('off-net calls') and on fixed network operators (FNOs), of which the largest is BT, for terminating fixed-to-mobile calls on their networks. Call termination charges are incurred by the MNOs and FNOs as costs at the wholesale level, and are taken into account in the retail prices which they set for their own customers. FNOs' call termination charges are separately regulated and are much lower than the termination charges levied by the MNOs. Calls to mobiles from FNOs accounted for a much larger proportion (70 per cent) of termination minutes than off-net calls (about 30 per cent) in 2001/02 (mobile-to-mobile, or on-net calls, do not attract termination charges), and provided nearly all the MNOs' net revenue from call termination charges in that year. This is because the MNOs pay out in termination charges to other MNOs (for off-net

[1] In 2001, British Telecommunications plc (BT) demerged its domestic and international wireless subsidiary, BT Wireless, into a stand-alone company, mmO_2. mmO_2 included BT Cellnet, BT's UK mobile operator. In May 2002, mmO_2 rebranded all its operations under the O_2 banner and BT Cellnet became O_2 UK Limited. We refer to this company as O_2 throughout this report, except where the context otherwise requires.

[2] In September 2001, One2One's parent company, Deutsche Telekom AG, announced that One2One would be renamed T-Mobile UK and the transition took place on 18 April 2002. We refer to this company as T-Mobile throughout this report, except where the context otherwise requires.

calls) broadly what they earn in termination revenue from other MNOs, and so the net revenue they receive from other MNOs or the net amount they pay to them is small compared with the call termination revenue they receive from fixed-to-mobile calls.

1.4. We found that each MNO has a monopoly of call termination on its own network. This is because there are currently no practical technological means of terminating a call other than on the network of the MNO to which the called party subscribes and none that seems likely to become commercially viable in the near future. There are also no ready substitutes for calling a mobile phone at the retail level, such as calling a fixed line instead.

1.5. We considered whether competitive pressures on the MNOs at the retail level constrained call termination charges in any way, or forced the MNOs to pass on excess termination revenues to retail customers through lower prices. We concluded that competitive pressures at the retail level did not constrain termination charges. There is vigorous competition among the MNOs to attract and sign up subscribers to their networks, for example through the payment of incentives and discounts to retailers, and handset subsidies to customers, but this is funded by excess returns from termination charges. We found that this structure of incentives put in place by the MNOs distorts the volume and direction of traffic on the network, leading to a distorted pattern of usage by consumers. We found less evidence of effective competition in call origination: thus the MNOs appear to display at least some power to set price structures that suit them for on-net and off-net calls.

1.6. In the light of arguments put to us by the MNOs, the DGT and others, we concluded that termination charges should in principle be cost-reflective and that the most appropriate method for determining the costs of termination was long-run incremental costs (LRIC). Some costs, however, are fixed and common to outgoing and incoming calls, and we allocated those costs on the basis that, because call termination charges are ultimately borne by the caller, the only costs that should be allowed should be those costs that the caller himself causes (which we term 'the cost-causation principle'). We concluded that the call termination charges of the MNOs were well in excess of a 'fair charge', this being based on the LRIC of call termination (including fixed and common network costs) and a mark-up for relevant non-network costs. We also concluded that there should be a small mark-up for the network externality, a justified addition to the fair charge because the caller benefits from having a large, accessible pool of people to call and be called by, and should make a contribution to the recruitment and retention of marginal subscribers. The MNOs argued that the costs of call termination should be calculated on a demand-led ('Ramsey') basis, but we rejected such an approach, as it would breach the cost-causation principle. Further, we concluded that the MNOs would, in practice, set neither the correct structure nor the level of retail prices in accordance with Ramsey principles if we were to set termination charges at Ramsey levels; hence, implementing Ramsey pricing would require us to set retail prices, and we do not believe it would be appropriate for us to attempt to do so; and, in any case, there are formidable problems associated with computing correct Ramsey prices.

1.7. It was put to us by the MNOs that, because most people now have a mobile phone, what consumers lose in paying high termination charges they gain on cheap handsets and competitively priced on-net calls. We rejected those arguments. Some callers to mobiles from fixed-line telephones or from payphones do not themselves own a mobile phone, and so subsidize mobile customers through high call termination charges, with almost no reciprocal benefit. Moreover, to the extent that callers with both fixed and mobile phones use their fixed lines to call mobiles more than they use their mobile phone, they suffer a detriment due to the high termination charges of the MNOs. The high prices of fixed-to-mobile, and low prices of on-net, calls also tend to skew usage from the lower-cost (that is, fixed) technology to the higher-cost (that is, mobile) technology.

1.8. We conclude that the termination charges of O_2, Vodafone, Orange and T-Mobile operate against the public interest, with the adverse effects that termination charges in 2002/03 are

30 to 40 per cent in excess of our estimation of the fair charge; and that, in the absence of a charge control on them, the termination charges of O_2, Vodafone, Orange and T-Mobile may be expected to operate against the public interest, with the adverse effect that termination charges may be expected to be up to double the level of the fair charge by 2005/06, if such charges were retained at their current levels in real terms. As a result, the following detriments occur and may be expected over at least the next three years to occur:

(a) the costs incurred by the FNOs and the MNOs through paying mobile call termination charges that are in excess of the fair charge are wholly or mainly passed through by them into their customer tariffs, with the result that consumers pay too much for fixed-to-mobile and off-net calls;

(b) the high price of fixed-to-mobile calls discourages such calls and, as a result, too few such calls are made, thereby distorting patterns of telephone use;

(c) consumers who make more fixed-to-mobile or off-net calls than on-net calls unfairly subsidize those who mainly receive calls on their mobile phones or who mainly make on-net calls, or who make little use of their mobile phones;

(d) the excess charges for termination have the further effect that they serve to encourage or facilitate significant distortions in competition because MNOs are not obliged to charge and subscribers are not obliged to pay the economic cost of handsets. This leads to the undervaluation of mobile phone handsets by the MNOs' customers combined with a greater turnover ('churn') than would take place if customers paid charges which reflected the proper valuation of such handsets. This leads to yet further distortions in greater expenditure in mobile customer acquisition than would have taken place if termination charges reflected costs more closely and if handset costs reflected the costs of handsets more closely; and

(e) the higher prices of calls from fixed to mobile phones and the lower price of on-net mobile calls encourage greater use of the higher-cost (mobile) technology at the expense of the lower-cost (fixed) alternative.

1.9. We did not find that there were, or that there might be expected to be, any offsetting public interest benefits arising from the termination charges set by the four MNOs being in excess of the fair charge, which could justify their continuation. We considered a number of possible remedies to address the adverse effects, and concluded that a charge control by way of a price cap, based on the relevant LRIC of the call termination service of an MNO with a 20 per cent market share, plus the appropriate mark-ups as set out in paragraph 1.6, was the only remedy likely to address them effectively. The price cap can be expressed as an RPI–X formula applied to the weighted average termination charge of the MNOs and would take the form of a 15 per cent reduction in their termination charges over the period from 1 April to 25 July 2003 and then a progressive reduction to the fair charge by 31 March 2006. This proposal, which is proportionate to the detriments and non-discriminatory, would remedy the adverse effects we have identified by removing their root cause.

1.10. In our view, this approach is both right and fair. It addresses the adverse effects through a methodology that is equitable, because it attributes costs on the basis of who causes them. If termination charges are regulated on this basis, it should mean that:

(a) consumers do not pay too much for fixed-to-mobile or off-net calls;

(b) consumers who make more fixed-to-mobile or off-net calls than on-net calls, or who make more off-net calls than they receive, will not unfairly subsidize other consumers;

(c) cost-reflective call charges should minimize distortion in the volumes and patterns of calling;

(d) there should be no displacement from less resource-intensive to more resource-intensive technology; and

(e) there will be less incentive for the MNOs to subsidize handset acquisition, which should reduce the rate of replacement of handsets.

1.11. The DGT's proposed licence modification sought to regulate termination charges within the period to 31 March 2006. However, the falling away of the current framework of telecommunications regulation as the result of the coming into effect of new telecommunications Directives on 25 July 2003 means that any licence modification we recommend will have a very short life. In our view, a period of three years is more suitable for regulatory assessment than the shorter period required by the change of regime. Consequently, in carrying out our inquiry, we used the longer period for the purposes of our analysis of the mobile market and the likely developments in that market. Moreover, the DGT asked us to state our views on the level at which termination charges should be set for periods beyond July 2003. In our view, the analysis we have carried out enables us to take a view of the levels at which charges should be set for the period to March 2006 and, notwithstanding that such views can have little more than persuasive effect, we have decided to state our views on the level at which we think call termination charges should be set to 31 March 2006.

1.12. Accordingly, we recommend that:

(a) For each of O_2, Vodafone, Orange and T-Mobile, there should be two price caps, set at the same level, one regulating termination charges for fixed-to-mobile calls and the other, termination charges for off-net calls. In this way, the MNOs cannot load charges disproportionately on to one or other call type.

(b) O_2, Vodafone, Orange and T-Mobile should each be required to reduce the level of its average termination charge by 15 per cent in real terms before 25 July 2003.

(c) O_2 and Vodafone should be subject to further reductions in their average termination charges of RPI–15 in each of the periods 25 July 2003 to 31 March 2004; 1 April 2004 to 31 March 2005; and 1 April 2005 to 31 March 2006.

(d) Orange and T-Mobile should be subject to further reductions in their average termination charges of RPI–14 in each of the periods 25 July 2003 to 31 March 2004; 1 April 2004 to 31 March 2005 and 1 April 2005 to 31 March 2006.

1.13. The precise effect of our recommendations on the MNOs and consumers is dependent on the extent to which the MNOs seek to recover the reduction in revenue from capped termination charges by price changes in the retail sector. As the result of our recommendations, however:

(a) We expect welfare gains of between around £325 million and around £700 million over the period of our recommended charge control.

(b) We do not expect average retail prices to increase. The MNOs need not increase their retail prices to restore revenue lost through the capping of termination charges, as their business plans project a continued downward trend in retail prices and they could recoup these revenues by reducing the rate of retail price reductions for a period.

(c) As we anticipate no increase in retail prices, we expect no significant loss of mobile subscribers. Even if handset subsidies are reduced, people already owning mobile

phones are unlikely to leave the network unless their handset is lost, stolen or broken. The MNOs have the option to offer marginal subscribers cheaper packages to induce them to stay on the network once that happens.

(d) No threat is posed to the financial viability of the MNOs. The MNOs have had notice of the possibility of charge controls on termination charges since at least September 2001 and their business plans all assume some reduction in termination charges over the next three years.