

10 Views of other parties

Contents

	<i>Page</i>
Department of Trade and Industry	144
Operators	145
Cable companies	145
Bell Cablemedia, NYNEX, TeleWest and Videotron	145
Videotron	147
CableTel (UK) Ltd	148
Diamond Cable (Nottingham) Limited	148
Other operators	149
ACC Long Distance UK Ltd	149
AT&T	149
Energis	150
Ionica	151
Mercury	152
MFS	154
Orange	155
Systems suppliers	155
Ericsson	155
GPT	156
Associations and professional bodies	156
Business Advisory Committee on Telecommunications	156
Consumers' Association	157
Government Centre for Information Systems	159
The Federation of Communication Services Limited (Cellular Service Provider Group)	160
Federation of the Electronics Industry	160
Music Industries Association	160
Telecommunications Managers Association	160
Telecommunications Users' Association	161
Scottish Advisory Committee on Telecommunications	162
Welsh Advisory Committee on Telecommunications	162
Worcester Telecommunications Advisory Committee	163
Trade unions	163
Communication Workers Union and Society of Telecom Executives	163
Others	164
The Barnsley Chronicle	164
Members of the public	164
Mr Ellison	164
Others	164

Department of Trade and Industry

10.1. The DTI briefly outlined the development and aims of telecommunication policy. It said that, in exercising the functions assigned to them by the Act, the Secretary of State and the DGT were required to act in the manner they considered best calculated to promote certain goals, including advancing the interests of consumers in respect of price, quality and variety of telecommunication services, and maintaining and promoting effective competition. The Act gave a number of powers and duties which were effectively shared between the Secretary of State and the DGT. In practice the Secretary of State, with advice from the DGT, took overall responsibility for the regulatory regime under which the market functioned and for market opening-in particular by licensing new operators to provide telecommunication services. The DTI recognized, however, that it was not sufficient to give permission for operators to compete; the conditions also had to be put in place to allow effective competition. This need was met by conditions in licences which allowed regulation to prevent licensed operators using their market position to compete in unfair ways. It was the DGT's role to enforce compliance with licence conditions, propose modifications to these where necessary, and monitor the development of competition.

10.2. The DTI summarized the goals of telecommunication policy since the privatization of BT in 1984 and set out the key developments since then. There had been considerable benefits to consumers since privatization. BT's prices had fallen in real terms by over 35 per cent and competition had been introduced into almost all areas of the market. In 1991 the Government announced the ending of the BT and Mercury duopoly in the provision of fixed link services in the UK. The arrangements put in place in 1991 included a number of measures designed to alter the balance of the market and so allow entry to new companies. However, the arrangements had, inevitably, been designed without direct experience of a multi-operator market and some aspects of the changes had needed further development in the light of subsequent experience.

Portability

10.3. The present reference on aspects of NP had arisen from an attempt by OFTEL to modify the 1991 arrangements. The licence condition agreed in 1991 did not allow the DGT to determine the allocation of costs, and in his view this lacuna in his powers was effectively preventing the introduction of NP. BT had made the point to the DTI that during the 1991 discussions on the duopoly review, prior to publication of the White Paper (see paragraph 3.14), it had received an assurance that the DGT would not be given a power to allocate the costs of portability. Such a statement was made by the Government to BT as part of a package which it was then believed would lead to the development of effective competition in a multi-operator market. The DTI said that it had explained to BT that this statement was entirely satisfied by the text on NP which the Government included in the White Paper, and by OFTEL's action in finalizing licence modifications on NP later in 1991. The statement did not, however, have relevance beyond this, and in particular did not represent an indefinite guarantee that the approach of the DTI and OFTEL to portability would never change, whatever developments occurred in the telecommunication market.

The future of telecommunication regulation

10.4. The DTI said that the industry was highly dynamic, and in its December 1994 consultation paper OFTEL had looked ahead to a future in which effective competition existed, and when a much lower level of regulation of prices and contractual terms would be appropriate for telecommunication licences in general and BT's licence in particular. The DTI saw considerable merit in this suggestion. Reducing detailed intervention by regulators would lessen the uncertainty experienced by operators, and the allocation of resources by a fully competitive market was likely to be more effective than that by a regulator. However, the regulatory regime had been put in place because the market was less than fully competitive, and the DTI saw the degree to which effective competition was in place as being a crucial factor determining the future of regulatory policy.

10.5. The DTI suggested that in considering the nature of the public interest issues raised in the reference, the MMC might wish to have regard to the following particular aspects:

- (a) the extent to which effective competition was so far in place, and therefore the degree of regulation necessary; and

- (b) the effect on the development of competition of any proposals by OFTEL, or alternatives suggested by the MMC.

Operators

Cable companies

Bell Cablemedia, NYNEX, TeleWest and Videotron

10.6. Bell Cablemedia, NYNEX, TeleWest and Videotron, four of the UK's largest cable communication operators, gave joint written and oral evidence. They told us that their comments reflected the consensus of opinion of the four companies, which covered over 9 million franchised homes between them.

10.7. The companies said that the absence of NP was the most significant impediment to competition in the UK telephony market. Since 1991 the number of homes taking cable telecommunications had grown at a rate in excess of 200 per cent a year and the number of homes passed by cable had increased by 40 per cent a year. The introduction of competition in this period had resulted in efficiency improvements by BT such that it had met the price cap while maintaining significant profits on calls and introduced improvements in its service such as itemized billing and elapsed time charging. Only competition from cable operators would put pressure on BT to reduce local call rates and line rental charges. BT's latest price reductions were targeted on local calls as a result, at least in part, of competition from the cable companies.

10.8. The companies referred to market research by CA (see paragraphs 10.93 and 10.94), conducted in March 1995, which showed that 70 per cent of consumers would consider switching operators if they could retain their existing number. They said that BT actively used the lack of portability to deter its customers from switching to cable and they provided an example of BT's promotional material which they said illustrated this.

10.9. The UK market for telephony services was still dominated by BT. BT provided 97.75 per cent of all domestic telephone lines, and just under 95 per cent of the total duration of local calls, both business and residential. For long-distance calls, BT carried over 85 per cent of the total duration of all call traffic.¹

10.10. The companies said that the cable industry currently invested more in the UK telecommunication infrastructure than BT and was building an optical fibre local network which would give the UK an infrastructure advantage over both its European and global competitors. Cable customers were offered a seamless and transparent interconnection between the cable networks and other national and international networks for the completion of calls. The cable TV companies provided a full range of services and did not just supply those services or those customers which were most commercially attractive. This implied significant social benefits, with 8 per cent of cable operators' customers being new telephony customers who could previously not afford BT's service.

Benefits of portability

10.11. The companies thought there were significant benefits to the UK economy from the introduction of portability. They said that this belief was supported by independent research, including the NERA study, and they agreed with NERA's categorization of benefits. In relation to Type 1 benefits, their experience suggested that for some customer types the costs of changing telephone numbers were a great deal higher than the figures suggested by NERA. For example, certain small businesses, given the goodwill invested in their telephone numbers, could never reasonably be expected to change those numbers. In the residential market the level of Type 1 benefits was supported by independent research carried out by CA. There was a significant sub-group of customers who would not contemplate changing their numbers and for whom, without portability, there would never be a competitive telecommunication market.

10.12. The companies said that the NERA study showed that the Type 2 benefits, which were exclusively BT's efficiency gains as a result of the increased competition, were the most important. They argued that increased competition, resulting from the eradication of barriers to customer switching, would stimulate

¹The UK Telecommunications Industry: Market Information, OFTEL, February 1995.

greater efficiency amongst all participants in the industry, not just BT. There were also other significant benefits from competition which had not been identified by NERA. In particular there were consumer welfare benefits resulting from lower prices, and additional benefits which accrued as a result of a greater number of customers moving to the more efficient cable networks.

10.13. The companies currently had no basis on which to comment specifically on NERA's estimate of Type 3 benefits.

10.14. The benefits identified would only be maximized through the adoption of appropriate economic costing methodologies and a cost allocation structure which provided incentives for both BT and the other operators to behave efficiently.

Costs

10.15. The companies stated that the costs of implementing NP fell into three categories. These were initial system set-up costs; conveyance costs; and per line set-up costs. BT had not provided any detailed information about the cost assumptions on which its price proposals to OFTEL and the cable operators had been calculated. The companies believed BT had proposed prices based on fully allocated historical costs. It was their view that BT's proposed prices bore little, if any, relationship to the true economic costs to BT of implementing portability. Incremental costing was the appropriate basis for calculating these costs.

10.16. The validity of incremental costs as the basis for investment decisions in the telecommunication market had been accepted by OFTEL in its recent consultative document and was likely to form the basis of the future interconnect environment in the UK and elsewhere. The true costs of portability were the incremental costs of establishing the service and these were lower than the fully allocated cost-based terms proposed by BT. The companies said that this view was supported by examination of their own incremental costs; they believed it was also in line with the independent analysis of BT's data performed by NERA.

10.17. In relation to BT's additional conveyance costs resulting from call tromboning, the companies regarded BT's short-run incremental costs as the most appropriate measurement methodology. They provided evidence which, they said, showed that on this basis BT's costs were zero or trivially small.

10.18. The level of BT's costs (however measured) would be crucially affected by BT's incentive to reduce those costs and this, in turn, would be dependent on how they were allocated between BT and other operators.

Cost allocation

10.19. Legal advisers to the cable companies suggested that the DGT already had the power to allocate the costs of NP under Condition 34B.13 of BT's licence. This condition begins 'A direction or determination under this Licence will not determine how the costs of Portability are to be borne and a direction under paragraph 34B.11 [ie that BT shall provide portability] will not be made in respect of a geographical area unless ...', and there follow three requirements. The advisers submitted that the opening statement was not absolute but was contingent on the requirements that followed.

10.20. Any decision on allocation of costs should aim to encourage behaviour that minimized costs and maximized benefits. In relation to the per line costs of NP, BT was proposing to implement portability in a way which resulted in a low system set-up cost but a high ongoing per line set-up cost. Cost trade-offs existed between the amounts spent on system set-up and per line set-up. BT would only have the incentive to invest optimally if it was required to bear both categories of cost.

10.21. Under BT's proposal, whereby additional network costs were borne by the recipient operator, BT would have both the opportunity and incentive to overstate and actually increase those costs in an environment where new technology, in particular the advent of call drop-back and IN, could otherwise reduce the costs substantially or eradicate them completely.

10.22. The companies' proposal for cost sharing was based on the broad principle that each operator should bear the costs that arose in its own network. They believed this would give each operator the incentive to invest optimally in order to minimize these costs. In relation to additional network costs, each operator bearing its own costs might, however, result in penalties to those operators introducing IN platforms earlier than other operators. They were therefore of the view that the DGT should nominate a date after which an operator forced to incur additional network costs (due to the use of inefficient routing technology by an originating operator) might recover this cost from that operator. This would provide the required incentive for the timely introduction of new technology in the future.

10.23. The companies argued that if BT's proposals on costs and their allocation prevailed, universal NP would not happen in the UK residential market in the foreseeable future. The economics and market share disparities were such that the cable companies would not be able to afford to proceed with the universal implementation of portability. It would be introduced only for those customers whose traffic volumes made the implementation costs worthwhile, to the detriment of consumer choice. Failure to implement portability on a universal basis would result in continued frustration of the aims and objectives of the Act and the specific objectives of the White Paper of 1991 and have a consequent negative impact on the competitiveness of UK industry. It was essential that the DGT had the power to correct market distortions caused by BT's dominance, such as BT's refusal to offer reasonable terms for the deployment of portability. The substantial market power possessed by BT meant that regulatory intervention in areas such as these was essential.

Applications to BT for the provision of NP

10.24. The companies said that cable operators had been attempting to introduce NP since early 1994. Indeed, on 22 August 1994 the DGT had directed BT to introduce NP in all of Videotron's London franchises by 7 October 1994. This introduction did not proceed due to the unacceptability of the commercial terms proposed by BT for the service. These were essentially the same terms still being proposed by BT to other operators.

10.25. The companies wished to introduce portability at the earliest opportunity if the results of the MMC inquiry made this commercially possible. As a result, from 2 October 1995 (the date from which BT had given operators the opportunity to lodge requests for feasibility studies for NP) the companies had asked for such studies to be put in hand. These did not represent requests to implement NP, but rather for BT to undertake an examination of the number ranges within an area that were available for NP. BT's processes dictated a four- to five-month window from feasibility request to commercial roll-out and hence cable companies had to ask that the studies be performed in October in order to guarantee a January to February 1996 roll-out timetable. The companies regarded these timings as excessive and had asked BT to reduce them following its experience with the trials, but BT had refused to do so.

10.26. The companies stated that they would not be proceeding with the commercial introduction of portability beyond the 500-customer pilot stage until they had been able to assess the implications of our findings: they regarded the commercial risk of being held to the charges proposed by BT as unacceptably high.

Videotron

10.27. In addition to participating in the joint submission of evidence summarized above, Videotron commented on some historical issues. It told us that although the stated intention of the 1991 amendments to BT's licence (see paragraphs 3.32 to 3.37) had been to permit the launch of NP, they appeared to have actually inhibited its introduction. If the licence had remained unamended in 1991, NP could have been introduced quickly and effectively by the DGT. The amendments had, in effect, erected barriers in the form of technical feasibility; cost-benefit analysis; an obligation on operators seeking portability to be willing to provide reciprocal NP; and apparently ambiguous restrictions on the DGT's powers of determination.

10.28. With regard to the setting of interconnection prices with BT, Videotron considered that the process of individual negotiation preceding a determination by the DGT had never really worked. Videotron was not aware that any significant price agreement between BT and a new entrant had ever been reached without determination by the DGT. This was because BT had effectively refused to negotiate with any operator on

pricing issues by demanding unexplained and excessive prices for interconnection. In every case the final price determination had shown that those demands by BT were higher than they should have been. There still remained considerable uncertainty over BT's interconnection prices and most new entrants were unable to assess the amount of their payment to BT during the crucial start-up phase of their businesses.

10.29. Videotron said that there was scepticism in the industry as to whether the 1995 changes to BT's licence (see paragraph 3.27) would provide an effective and robust methodology for the continued regulation of BT. These changes had followed representations from the industry to the DGT asking him to issue enforcement orders to prevent BT's anti-competitive behaviour. The DGT had argued that he had no powers to act under the existing licence and had therefore negotiated the licence amendments with BT.

CableTel (UK) Ltd

10.30. CableTel (UK) Ltd (CableTel) told us that it supported the submission made by the four large cable companies (see paragraphs 10.6 to 10.26). As a local loop operator, CableTel found that many of the commercial customers which it wished to attract were small businesses which only required one telecommunication line. These businesses were unwilling to take telephony services from another operator as they could not afford to reprint stationery and re-advertise a new number. Absence of NP meant that such customers were effectively bound to BT, and were unable to take advantage of rates and services available from other operators.

10.31. CableTel did not agree with BT's view that the cost allocation for portability, as defined by the DGT, meant that BT would be forced to subsidize its competitors. The cost of portability would be reduced as new software platforms and automated administrative processes were established. The increased competition in the local loop which NP would inevitably create did not mean that local loop operators would benefit at the expense of national operators. BT had recently shown that it was able to introduce price changes which competed directly with those of cable operators. In the longer term, CableTel envisaged that portability would be a two-way process, and it therefore supported the proposal that operators should bear any costs which arose in their own networks. BT's refusal to accept the DGT's licence modifications was detrimental to the interest of consumers in respect of prices charged and quality and variety of the telecommunication services provided.

Diamond Cable (Nottingham) Limited

10.32. Diamond Cable (Nottingham) Limited (Diamond) told us that it operated in seven franchise areas in Nottingham and the East Midlands, and had recently been awarded two more franchises in that region. The company said that it had been the first cable company to install its own switch (earlier market entrants used dedicated concentrators connected to Mercury's switch processors) and the first to interconnect with BT, in 1992. Its network was currently being extended in all the franchises simultaneously, passing premises at an aggregate rate of approximately 5,000 a week. Diamond said that this was generally recognized as one of the most rapid rates of network construction undertaken so far within the industry.

10.33. Diamond was optimistic about the future but believed its sustained growth would be inhibited by the absence of NP. It had been successful in winning accounts with large businesses whose size enabled them to take services from Diamond whilst still retaining some exchange lines from current suppliers. They thereby kept existing telephone numbers for caller recognition purposes on incoming lines and took advantage of lower call charges for outgoing usage on Diamond lines. Diamond thought it unlikely that it would be as successful with small and medium-sized firms. Such firms would probably be unable to afford to keep existing services for incoming calls and would not consider that savings made as a result of switching to Diamond justified the upheaval and expense involved in changing numbers, for example the costs of reprinting stationery and advising contacts. Diamond might also find it difficult to obtain business customers in provincial areas where firms which were well known or long-established tended to be resistant to changes affecting their identity, and telephone numbers were often regarded as of equal or greater importance than many other aspects of identity.

10.34. Diamond said that its mix of residential customers was changing now that its network was spreading out from town centres. Although its latest penetration figures showed that the early momentum was

continuing, it was concerned that the higher-spending residential customers (who typically lived in lower-density home areas) might perceive more value in retaining their existing telephone number than in gaining the offer of free Diamond-to-Diamond calls. These customers were also likely to have a disproportionately high percentage of non-local call usage.

10.35. While Diamond thought it important to keep a sense of perspective when considering the anti-competitive aspects of the absence of NP, it noted that the need for portability had been recognized for several years. The fact that nothing had been done to address the need might be seen as a wasted opportunity.

Other operators

ACC Long Distance UK Ltd

10.36. ACC Long Distance UK Ltd (ACC) said that the absence of NP in the UK meant that many customers, particularly business customers, who would otherwise switch to an operator other than BT would not do so because of the costs associated with a change of telephone number. These costs, which included reprinting stationery, directory enquiry changes and mail-shot bulletins giving the new number, were substantial and acted as a barrier to switching. Without a modification to BT's licence obliging it to contribute towards the cost of implementing NP there was no incentive on BT to co-operate with OLOs in its introduction.

10.37. The unresolved dispute over who should bear the costs of portability was operating against the public interest and the only remedy available was modification of the conditions of BT's licence. NP would provide choice and competition and would benefit all customers of telecommunication services in the UK, not only those of BT.

10.38. ACC supported the proposal that individual operators should be responsible for their own direct costs attributable to the implementation of NP in their own networks and that joint costs, which were unlikely to be substantial at the outset, should be shared with BT proportionate to market shares.

AT&T

10.39. AT&T said that it was a global provider of communication services and products and a licensed operator in the UK. It believed NP was an essential component of a fully competitive market and its absence (along with other barriers) had been a major limitation in the establishment of effective competition in the UK telephony market. This absence (and lack of access by other operators to the full range of numbering plans-which AT&T thought should also be considered) was inextricably tied to the fact that after more than ten years of deregulation BT remained dominant in the UK, with nearly 95 per cent of the overall market.

10.40. AT&T thought consumers were disadvantaged by the lack of NP, without which they were far less likely to change operators. This benefited BT and frustrated competition generally. Portability would give customers access to a range of innovative services offered by new operators. These operators could not continue to invest in creating extra services unless they were able to provide their offers on an equivalent basis to BT.

10.41. The public was also being denied price advantages that interconnecting operators could pass on to customers if NP existed. Interconnecting operators had to spend additional funds to market their services in order to persuade customers to change operators and overcome the inconvenience of a number change.

10.42. The same arguments related to 0800 portability. In the USA, during an average business day, 40 per cent of AT&T's traffic was carried over 0800-type services (800 in the USA). In the UK, freephone service was barely utilized. The public was being denied the full benefits of 0800 services. Other operators would continue to hesitate to promote this service until 0800 numbers were portable.

Implementation and cost recovery

10.43. True NP required a database-type solution. Interim 'call-forwarding style' solutions were not acceptable in the longer term and degraded service. Exchange equipment and software currently available in the market could provide NP, as demonstrated by the extent to which it had been implemented in the USA. A total database solution for 0800 portability had been completed by AT&T in May 1993.

10.44. AT&T thought all beneficiaries of NP should pay their proportionate share of the cost of implementing the capability, based on factors such as market share, number of lines, number of minutes, etc. In addition, any cost formula should take into account the fact that new operators had received no discount to compensate them for the benefits that had accrued to BT as a result of its privileged position in the market. BT would continue to be the largest beneficiary in the UK market and under the formula described would undoubtedly bear a significant majority of the costs of implementation. Introducing portability without a fair apportionment of the cost would only further frustrate the achievement of effective competition.

Energis

10.45. Energis gave written evidence and attended a hearing. Since August 1994 the company had operated a national telecommunication network providing services to large, medium-sized and small businesses. It had invested in a trunk backbone network and was gradually increasing its investment in local access facilities, specifically direct fibre links into larger business premises.

10.46. Energis said that it had been constrained by the lack of NP and this would increasingly be the case as it achieved wider coverage. Portability was vital to the success of competition. The fact that a number of businesses kept their BT lines for incoming calls when they used other operators for outgoing calls indicated that a change of number was a major disincentive to business customers to switch operators. Energis saw the most useful application of NP as a medium-term solution to allow the phasing out of the old telephone lines when a business changed operator. It estimated that with portability it would provide direct telephony to some 250 business customers in 1995/96 rising to 1,730 in 2000/01. The amount of additional revenue which the provision of incoming telephony would provide was expected to be £66,000 in 1995/96 rising to £1.4 million in 2000/01.

10.47. Energis thought it critical that NP was introduced on a sound economic basis that met the requirements of both the entrants and the incumbent. Portability would have to cope with an increasingly dynamic commercial and technical environment and OFTEL should be able to adapt the conditions relating to its provision as and when appropriate. To this end, Energis fully supported the licence amendment proposed by OFTEL which would enable it to determine the technology under which BT should provide NP and its charges, based on appropriate and relevant costs. Energis thought customers had a fundamental right to own their telephone numbers and that such a right should not rest with an operator, BT or otherwise. Thus, numbers should move between locations on different networks easily, incurring a one-off set-up charge but no per call charges.

10.48. Energis said that its NP requirements differed from those of the cable companies and other local loop operators that had greater focus on the residential market and, hence, the porting of single geographic numbers. Its requirements were:

- (a) porting of 10,000, 1,000 and 100 sequential geographic numbers from BT (larger business customers)- a primary requirement;
- (b) porting of individual numbers (residential and small business customers)-a secondary requirement; and
- (c) porting of individual non-geographic numbers (freephone and premium rate)-also a primary requirement.

Cost allocation

10.49. Energis said that the two types of cost incurred in NP were the fixed costs incurred in setting up the ported number and the cost incurred on a per call basis to a ported number. The fixed costs had two components: the administration costs of nominally passing the number across to another operator and the costs relating to the data amendments which would occur on each network operator's switches.

10.50. Energis thought the administration costs should be covered in a charge levied by the donor network and that there should be essentially the same administrative charge for one ported number as for a ported block of sequential numbers—there was little difference in the amount of administration needed for one number and a 100 or 1,000 sequential number block. It was aware that BT had proposed a charge of £35, per direct ported line, to the cable operators. This charge was far higher than Energis estimated its costs of porting its own numbers to be.

10.51. On a per ported call basis, Energis said, efficiency should be encouraged and, for this reason, BT should not be allowed to recover costs of inefficiency in the provision of ported calls.

10.52. Energis thought the charges incurred in providing NP should be levied on the following basis:

- (a) a one-off administration charge based on relevant costs;
- (b) a one-off data amendment charge based on relevant costs; and
- (c) no per call charge should be levied by BT on an operator to which a customer had ported a number block or a single BT number.

Ionica

10.53. Ionica gave written and oral evidence. In November 1995 the company announced that on 26 March 1996 it would be introducing the first phase of the first national telephone service in the UK to compete with BT for residential and small business telephone users throughout the country. Ionica said that its market research showed that the absence of NP was a significant barrier to switching operators for its potential residential customers. Many of these households were heavily dependent upon the telephone, particularly those who ran businesses from home. In addition, some were in rural areas with no choice of supplier at present other than BT. Without portability these households would either not consider switching operator or would require substantial discounts to compensate for the cost and inconvenience of changing numbers.

10.54. Ionica said that the introduction of NP would also facilitate competition between entrants, a point not considered in the NERA study. To date, competition in the residential market had been confined to BT and cable operators, which used technologies of a similar nature. In such conditions a relatively stable duopoly could emerge in which customers of either party met significant barriers if they wished to switch operators and in which the cable companies' aggressive pricing strategies adopted to gain market share would later be discarded. Ionica believed such an outcome would be against the public interest. The introduction of a competitor such as itself, with a fundamentally different basis for competitive advantage, would instigate a more dynamic and durable form of competition in which customers could evaluate the claims of differing services and readily move between suppliers. Ionica said that customers would be willing to switch between other operators as well as switching from BT. NP was necessary to realize these conditions.

Cost allocation

10.55. Ionica supported the principle that operators should bear their own costs. These might include some common or fixed costs associated with upgrading software and hardware, or variable costs associated with automated or manual provisioning of individual data amendments. The composition of each operator's costs would depend upon technical considerations which would differ between networks and over time as new solutions were developed. The DGT need not intervene directly in mandating particular technical solutions and should not therefore seek to determine or optimize a balance or allocation between fixed and variable costs. The principle that each operator should bear its own costs was robust across all technical solutions.

10.56. This principle would also ensure that operators had an incentive to promote the efficient introduction of capabilities within their own networks. This had been an important characteristic of utility regulation in the UK and accounted for much of its success.

10.57. Alternative arrangements in which operators were able to recover costs from each other would encourage them to introduce portability in an inefficient manner and would stifle innovation. The only means by which the DGT could hope to secure efficiency improvements in such circumstances was effectively to mandate how operators implemented changes within their networks. This would be undesirable. In the meantime, if costs were to be recovered on a per ported customer basis, BT might maximize charges levied on others.

10.58. The draft amendment to BT's licence indicated that, whilst BT should bear the fixed costs of implementation, it should be allowed to recover variable per line set-up costs from other operators. The charges BT initially proposed in respect of per line costs appeared to include a high element of labour costs, suggesting that BT had sought to minimize the development of automated processes (which incurred non-recoverable costs) and maximize variable factors, particularly labour (the costs of which would be non-recoverable). The distinction between fixed and variable costs in such proposals was dependent upon technical factors and Ionica doubted that BT's initial proposals represented an optimal solution. In contrast, if BT were to bear all costs it would be able to deploy technical solutions without challenge from other parties. Ionica concluded that all costs should be borne by the relevant operator.

Conveyance costs

10.59. Additional conveyance costs were associated with a particular technical solution to the routing of ported calls which might be appropriate to a specific point in the development of BT's network and switching capabilities. The optimal technical solution should remain a matter for each operator to determine and regulatory systems should be indifferent to issues of technical detail.

10.60. Call routing and switching capabilities were in any event continually being enhanced to improve utilization of network assets. The additional costs of porting numbers should rapidly decline provided BT had incentives to optimize the manner in which such calls were routed. The use of call drop-back capabilities within BT's System X exchanges was one interim technical development which had already received considerable attention. This would require that certain additional signalling functions be undertaken within the BT network, but would not involve additional routing which, as currently proposed, gave rise to additional conveyance charges. Similar signalling functions were already performed, at some cost but at no charge as between operators, in respect of conventional telephone calls which remained unanswered. BT had no incentive to explore such alternatives if it was able to recover higher costs from existing arrangements.

10.61. BT had not supplied details of its additional conveyance costs. Ionica was using a different network architecture and could not easily model BT's costs for additional local switching functions which were not performed within its network. It did not think OFTEL should be required, or was able, to adjudicate between differing views of efficient implementation. This was not the case with other network functions and would not be necessary if the amendments to Condition 34B included the principles Ionica suggested.

Mercury

10.62. Mercury gave written evidence and attended a hearing. It said that while the definition of 'portability' in the reference was broad enough to allow for all conceivable forms, Condition 34B.12 of BT's licence and the current BT/Videotron dispute concerned only a specific and narrow form of portability. This could be referred to as exchange line NP and was the only form of portability the DGT currently had the power to direct BT to provide. Mercury said that a lack of other forms of NP also operated against the public interest and should therefore be considered.

Benefits of NP

10.63. Mercury thought NP was an essential requirement for the development of effective competition. Its introduction would lower the barriers to entry for operators, encourage greater efficiency, stimulate companies to fight harder for customers and reduce costs for consumers. The non-provision to date of NP had lowered Mercury's effectiveness as a competitor to BT and so reduced the benefits of competition to consumers.

10.64. Mercury accepted that the specific benefits of portability were broadly as set out in the NERA cost-benefit analysis. It estimated that in the last three years the lack of NP had cost it at least £194 million of revenue. This estimate was arrived at by considering the impact on Mercury's directly connected service for large business customers ('2100 Service'). Portability would mean that Mercury could carry the calls made to its customers in all cases as well as those made by them. The majority currently kept about half of their old BT lines for their incoming calls. Incoming traffic would bring Mercury additional interconnection revenues and additional line rentals.

Interconnection

10.65. Mercury gave evidence on interconnection which it said demonstrated the benefits of the DGT having the power to resolve inter-operator disputes. It told us that in all the cases it cited the independently-determined charges had been less favourable to BT than the terms BT had been prepared to offer. If the DGT had not had the power to determine interconnection charges between Mercury and BT it was unlikely that Mercury would have been able to compete with BT in any manner other than one effectively controlled by BT. BT was in a similar dominant position with regard to the provision of NP. It was therefore vital for the DGT to have the power to resolve this issue.

Costs

10.66. Mercury said that two obvious ways of implementing portability were:

- (a) a detailed approach that involved attempting to identify every cost and benefit, followed by the design of regulations to try to control where the expected costs and benefits would fall; and
- (b) a framework approach which recognized NP as an integral part of a competitive telecommunication industry and provided incentives for efficiency, promoted effective competition and allowed for the industry's rapid development.

The first approach was so difficult as to be impossible in practice. The second would accept that NP changed the cost functions of all companies. It was unavoidable that this would have different impacts on the various UK telecommunication operators, as they all had different product mixes and volumes and different network structures and technologies. The first approach would attempt to provide regulations to negate these impacts. Not only was this impossible to achieve, it was artificial. The solution which Mercury supported was that operators should bear their own costs.

10.67. Mercury said that OFTEL's draft licence amendment was similar to the detailed approach described above, and it outlined the problems that it believed would arise from this solution. It thought OFTEL, faced with the need to resolve the dispute over BT's claimed costs of implementing the currently proposed technical solution, had drafted a licence amendment that did not consider how NP formed part of a competitive telecommunication industry.

Licence amendment

10.68. Mercury suggested a text for the licence amendment. It said that, where it was technically feasible, the licence condition should give the DGT the power to direct BT to provide various forms of portability-exchange line NP on a reciprocal basis, non-geographic NP, number block portability and full NP-and the power to determine the necessary terms and conditions. The other major change it suggested related to the financial arrangements. For exchange line portability the appropriate solution would be for operators to bear their own costs. However, because this solution might not be appropriate for the way in which other forms of

portability were eventually adopted (eg in the USA non-geographic NP had been implemented using a third party database management company), the DGT should be given the power to determine the financial arrangements.

MFS

10.69. MFS gave written evidence and attended a hearing. It told us that it was a subsidiary of MFS International Inc, a US company whose parent operated a business telecommunication network in the USA. MFS had offered a full range of telecommunication services to major business users in the City of London since May 1994. It had since extended its services to Docklands, Westminster and certain other parts of London, and planned also to cover other major business centres in the UK. Its licence included authority to provide international simple resale services to those countries designated for the purpose by the Secretary of State.

10.70. MFS said that it was interested in NP in the UK for two reasons. First, it believed portability would benefit users by increasing competition and choice, and would reduce the dependence of all other operators on BT for local end interconnection. Secondly, MFS wished to be able to offer direct dial-in services to its customers, most of whom would be unwilling to consider a change of number for this purpose. In addition, in July 1995 it had introduced an 0800 service, and also wished to launch an 0345-type service, for both of which portability of existing numbers was an important feature.

10.71. Although the UK telecommunication market could be regarded as the most competitive in the world, progress since 1984 had been slow in some respects. BT was dominant in almost all segments of the market, with an overall market share of some 85 per cent and over 95 per cent of local access to customers. Local access was an essential element of every telecommunication service and BT's dominance in this area, coupled with its vertical integration of local, national and international services, inhibited the rate of development of competition.

10.72. Competitors, such as cable TV operators, which were seeking to offer an alternative local access service to single-line and other small telecommunication users faced a major barrier to entry because many such users were prevented from changing their operator by the inconvenience and cost (and in some cases potential loss of business) connected with changing their existing number. Thus, the lack of NP restricted the rate of development of competition in the local loop, and was therefore delaying the introduction of real choice for most telecommunication users. It also had a wider knock-on effect in the interconnection, or wholesale, market as any operator had necessarily to be able to provide its customers with access to any UK user.

10.73. In the case of business customers with multi-exchange line PABX installations, it was possible to connect to more than one operator for outgoing calls. However, for incoming direct dial-in calls without portability the same problems of cost, inconvenience and potential loss of business were imposed by a change of operator. Portability of number blocks of varying size was therefore no less important than portability of individual numbers. Equally, 0800 and 0345 NP was significant for full competition in the user market. Many large users had been given easily remembered numbers or numbers which related to their name or business and without portability they would have strong reasons for not changing to another operator.

10.74. The absence of NP was an unnecessary barrier since NP had been technically and economically feasible for some time. BT had resisted its introduction for as long as it could and now sought to place an undue burden of cost on new operators. BT's licence already gave OFTEL the power to require BT to provide portability as a result of the 1991 amendment but it did not authorize OFTEL to allocate the costs incurred. The proposed licence modification might suffice to achieve this but it might not provide OFTEL with sufficient flexibility. It could be in BT's interest to implement portability in a relatively inefficient manner. OFTEL had therefore to be able to impose incentives on BT so that BT rather than other operators would suffer if BT chose inefficient options. In considering the possible terms of any amendment it was also important to bear in mind the rate of technological change in telecommunications. Currently, portability was being looked at in the light of a particular technical solution, but a licence modification should give OFTEL the ability to react effectively to the potential for different solutions in the future as better systems became available. In MFS's view, OFTEL had to have sufficient flexibility on both these counts if it was to ensure that the maximum benefit to users, in terms of competition, choice and value for money, would be achieved.

10.75. MFS thought that at this stage the interim data decode system agreed by the industry working group in June 1994 was probably the only one that was technically available for quick implementation. If that system was used, although MFS had no direct commercial interest in the porting of single lines, MFS would be keen to see that system replaced as quickly as possible. In addition to dealing with NP, the IN solution would provide 'personal mobility', the ability to have your calls diverted to wherever you might want them.

10.76. MFS agreed that portability would involve the four types of costs recognized by OFTEL. It thought each operator should bear its own system set-up cost and the operator which had asked for it should pay the cost of recoding the database and the administrative costs which might arise. MFS considered the current approach of OFTEL of adding the extra conveyance cost to the BT total network costs to be reasonable. Regarding the IN solution, MFS thought a similar approach was appropriate in that those elements of IN that could be detected as incremental costs relating to NP should be allocated in proportion to the market shares of the operators using the system.

Orange

10.77. Orange said that as a mobile operator it had no direct comments on the reference. However, because NP would eventually be extended to cover mobile telephones, it wished to make a more general comment. It thought the MMC's conclusions on this inquiry should not necessarily become the model for establishing the cost allocation for other NP applications. In these cases it might be necessary to adopt different cost-allocation methods either because portability was implemented in a different way or because the respective positions of the relevant parties were dissimilar to those in the current reference. Therefore, it was important that the MMC's conclusions on this reference were set out in such a way that they did not restrict further evaluation of the different circumstances that might exist for other categories of NP when their cost allocation was being decided.

Systems suppliers

Ericsson

10.78. Ericsson said that the tromboning approach was the most appropriate short-term solution for the implementation of NP on the BT network. However, it was far from ideal. Undertaking the data decode at the trunk exchange would not be practical, as it would impose an additional call-processing load and require additional data tables which would be complex to manage. The tables would need to be kept consistent with the data in the dependent local exchanges. Ericsson was confident that data decode was the most cost-effective solution for portability in the short term. The company had offered drop-back rerouting software to BT. It would be delivered in two main deliveries in September 1996 and March 1997. There would be a three-month roll-out after these dates and BT would need to amend its operations and maintenance software before the function could be made commercially available.

10.79. Ericsson said that an IN capability could be introduced on the AXE-10 exchanges which it had supplied to BT by late 1996. In principle this would be able to support portability. Reference to an IN database was best performed at the terminating exchange to avoid the need to query every call. Reference at the originating exchange could result in multiple queries being required for each call, thus increasing processor requirements and post-dialling delay. The additional processing required for a call to make an IN database query at the terminating local exchange would significantly increase the requirement for capacity at local exchanges. Initially this would require the call to be tromboned as under the currently proposed solution thus giving a further increase in demand for capacity. Further, as yet not planned, development would be required to perform call drop-back rerouting under an IN arrangement. As the costs of performing a straight drop-back rerouting were the same as for a normal terminating call, it was envisaged that the IN solution could never be more effective from a call processing point of view. An IN solution would only be viable if it was common to all operators or performed functions other than just portability.

GPT

10.80. GPT said that all responses in connection with this inquiry had been made specifically in response to MMC questions relating to the BT network. As a system supplier to BT it provided only certain elements of the BT network. Hence its comments were supplied in so far as they related to System X-the type of exchange which GPT had supplied to BT-and did not take account of operating elements and costs known only to the operator. In GPT's view the planning and implementation of NP would require significant traffic engineering by the operator to establish capacity in the equipment existing in the network and to ascertain the need for additional equipment to meet the required increase in capacity. GPT said that tromboning was available today and that both tromboning and drop-back made use of data decode at the local exchange. GPT and BT were currently discussing the technical requirements and implementation of the drop-back rerouteing system and GPT anticipated that this would lead to an order placement by BT. There would then be a period of development and testing before the product was available on the BT network but no time-scales were yet agreed.

10.81. Asked about the effect that call drop-back would have on the additional conveyance costs of portability, GPT said that in the case of drop-back rerouteing the full trombone path would never be required. A path from the trunk to the local exchange was established and held only for sufficient time to allow the terminating digital local exchange to determine its onward routeing. Therefore the cost was reduced by two factors. First, the cost of the leg from the digital main switching unit to the digital local exchange was reduced in accordance with the ratio of the call set-up time to the call hold time. Secondly, the whole cost of the onward leg to the new location was saved since it was never established. The values of call set-up time, average call hold time and the lengths of routeing involved were known only to network operators and not to suppliers.

10.82. GPT said that the availability of IN technology to support NP would depend on the general approach to portability and where in the network the IN technology was to be applied. If it was to be used to identify ported numbers at the originating local exchange, then all originating calls would have to be referred to the IN database. In a large network like BT's this would lead to an unacceptable load on a centralized IN database or to severe administration and synchronization problems if the databases were replicated. The technology required to resolve these issues was still some time away. GPT noted that there was also an economic issue. If the IN databases and associated signalling network were implemented solely to cater for portability as currently defined, then the cost burden on this capability would be difficult to justify. The use of IN technology at the terminating local exchange solely for the purpose of NP was certainly possible but would confer no advantages over and above the data decode method already agreed in conjunction with call drop-back. Nevertheless this option might be justifiable in cost terms if other IN services were introduced at the same time. Implementation of IN technology at the terminating trunk exchange was another possibility and could confer advantages if combined with the call drop-back method and introduced at the same time as other IN services. In this instance the full digit decode would still take place at the terminating local exchange but the result would be a 'trigger' causing the call to drop-back to the terminating trunk exchange and apply to the IN database from there. The use of IN technology could introduce additional post-dialling delays which the customer making the call would not expect.

10.83. Asked about the set-up costs for portability, GPT said that there did not appear to be any direct relationship between the work carried out by the switch manufacturer and the resulting work by the operator. In some cases a relatively small change in System X could have significant impact on the work for BT.

Associations and professional bodies

Business Advisory Committee on Telecommunications

10.84. The Business Advisory Committee on Telecommunications told us that it was established under section 54(4) of the Act to advise the DGT, in relation to his functions, on the particular interests of smaller businesses. It liaised with similar bodies established under section 54(1) which considered the interests of other telecommunication users. Together they had formally advised the DGT on consumer aspects of NP.

10.85. The Committee said that the cost and inconvenience to users, particularly business users, of changing their numbers could be considerable. A number change would entail direct costs including amending letterheads, advertising material, financial documents and vehicle livery. Perhaps more importantly, it would require a major exercise to alert customers, suppliers and other contacts, with the risk that business would be lost because of incorrect material which was already circulating. It estimated that the direct cost to a typical small business could range from several hundred pounds to several thousand. For larger enterprises the costs would be considerably greater. As long as a switch of operator entailed a change of telephone number, this cost and risk had to be set against the benefit potentially available. The effect would be to inhibit switching. Failure to switch could act against the financial efficiency of individual businesses; it could depress economic growth; and, crucially, it could reduce competitive pressure in the telecommunication market.

10.86. The Committee believed one of the most potent forces for effective competition was the ability and willingness of the consumer to exercise choice between competing suppliers. The absence of NP thus had a primary anti-competitive effect. Since most telecommunication consumers were customers of BT, and competition would be stimulated by their ability and willingness to transfer to other operators, it was right that the DGT had first addressed the need to port numbers away from BT. However, the Committee stressed that the needs of a competitive market would only be served when portability was assured between any two operators, including porting back to BT.

10.87. The Committee had not involved itself in the details of the cost to BT and others in delivering NP in any given circumstance. Indeed, it considered that the key issue was not the actual sums involved but the general principle that the DGT should have the discretionary power to determine them in order to promote an effective, competitive market for business users. It did not, therefore, offer any specific comment on the financial arrangement which the DGT had proposed, but made the general observation that it was accepted in business that a supplier losing a customer must bear any costs associated with doing so. This was one of the spurs to competitive performance and should apply equally to all, whether or not in a dominant position.

Consumers' Association

10.88. CA, which has around 800,000 members, gave written and oral evidence. It told us that it had long had an interest in telecommunications and had regularly published reports in *Which?* magazine both on the standards of service offered to domestic consumers and on telephone equipment.

10.89. CA told us that it had always believed in a freely competing market, in which all consumers had equal choice of goods and services. It said that its research had highlighted a number of more fundamental issues than those put forward by OFTEL in its consultation document, *A Framework for Effective Competition*. CA's particular concerns included the provision of information by telecommunication companies and the regulator, and the structure of consumer representation. However, the main barrier to competition was the absence of NP.

10.90. CA said that the telecommunication industry had improved since the privatization of BT and the duopoly review. Market entrants were competing directly with BT for some services, many prices had fallen, and a wider range of products and services was available. Nevertheless, BT was still in a monopoly position in most parts of the country. In the last couple of years the spread of cable networks had increased, but the impact had still to be seen in the domestic telephone market. Although some kind of cable TV service was available to well over 4 million homes, not all were able to access cable telephony. According to figures published by the ITC, while cable TV penetration stood at some 915,000 or 22 per cent of 'homes passed', the equivalent figure for telephone connection was some 740,000 or 18 per cent.

10.91. CA said that although large numbers of consumers had switched from BT, around one-third of the population had no prospect of being able to follow suit. Sixty-six licences had been issued to new operators but this had had little impact on the majority of residential customers. As far as CA was aware, only two of the companies which had obtained licences-Energis and Ionica-had plans which might affect the domestic market. Of these, only Ionica planned to compete in a significant way with BT for local call business.

10.92. In 1995 CA had carried out research on the prices and services of different operators. This research, which was published in *Which?* reports in June and July 1995, involved analysis of BT, Mercury and all but two cable companies. The results indicated that BT was significantly more expensive than a

number of the cable companies. However, CA said, there was no indication that BT felt it necessary to protect its market share by reducing prices to levels closer to those of the other operators. Its survey evidence showed that BT's service was not well regarded but that this too had not had a major impact on its market share.

Portability

10.93. CA had commissioned a survey to find out why domestic users had or had not switched from BT to another operator and, if not, what would make them switch. The survey showed that domestic consumers had two significant concerns when considering switching operator-cost and convenience. Of the 1,036 people interviewed, 37 per cent said that they had a choice of telephone supplier and 41 per cent said that they did not have a choice. 22 per cent did not know. CA said that it was clear from this that information about the current availability of other telephony services was poor and OFTEL should consider how to encourage more effective competition by making it easier for consumers to obtain such information.

10.94. 4 per cent of those surveyed had switched to a telephone supplier other than BT. The great majority (86 per cent) of those said that they made the move because they could obtain a cheaper service. Those who said that their only supplier was BT were asked what would induce them to move to another supplier. While 84 per cent said that cheaper calls would make them consider moving, 70 per cent said that they would be tempted if they had the ability to keep their existing telephone numbers. (For further details of the survey, see Tables 7.1, 7.2 and 7.4.)

10.95. CA concluded that the absence of NP was a significant deterrent to switching supplier for many people. Exactly half of those questioned said that prices would have to be at least 20 per cent cheaper, or that they would not consider changing supplier at all, if they could not keep their number. If NP was an option only 35 per cent would not consider changing. More significantly, CA said, the survey showed that although there had to be appreciable potential savings before the majority of consumers would seriously consider changing operator, those savings would have to be even higher if existing numbers had to be changed. Taken with the indication that the ability to keep their phone number would tempt the vast majority to consider switching to another supplier, lack of NP was clearly a significant barrier to competition.

10.96. CA said that these results indicated that the introduction of NP was critical for the development of sustainable competition. It considered that OFTEL's proposed licence condition was in the interest of all consumers. The fact that market entrants had to overcome this barrier before they could win customers was another of the many advantages enjoyed by BT as the incumbent supplier. While in the short term the vast majority of ported numbers would be from BT to other suppliers, this was not a reason why BT's competitors should bear the full cost of additional conveyance. Operators, particularly BT, should not be seen as 'owning' certain numbers. The mechanism by which numbers were allocated should be seen as an industry infrastructure which was commonly held. Customers should have the opportunity to switch supplier with ease and minimum cost. Potentially, therefore, all companies should benefit.

BT's commitment to NP

10.97. CA suggested that the evidence it presented indicated that the lack of NP had permitted BT to sustain an overwhelming market share while offering uncompetitive prices and standards of service. CA was therefore sceptical about BT's claim to support NP: BT's interests for the foreseeable future appeared to lie with preventing its introduction.

Allocation of costs

10.98. BT's position that it should recover its costs from other operators was untenable. CA fully supported the DGT's view that the costs of NP should be shared between BT and the other operators in proportion to market share. This arrangement would fit far better with the needs of a fully competitive market which it hoped would emerge before too long. However, CA was uneasy about requiring BT's competitors to pay for the peculiar 'tromboning' arrangement. It was clear that the technology existed for the rerouting of calls to take place at the trunk exchange and BT could implement such a system within two or three years. If BT's competitors were to pay for the additional conveyance then BT would have no incentive to implement the technology which could reroute calls more efficiently. It was CA's view that if NP was to be introduced as BT suggested (with the company which received the ported number bearing all the costs) then BT's own inefficiency would be subsidized by its competitors.

10.99. CA considered that the DGT should have the power to settle disputes following consultation with all interested parties, including consumers, where companies could not agree on the allocation of costs. The alternative to this would be to allow one company to block developments which were in consumers' interests, which was not acceptable. OFTEL had the experience to exercise its power fairly and only when absolutely necessary.

Government Centre for Information Systems

10.100. The CCTA, the Government Centre for Information Systems, said that it was responsible for stimulating and promoting the effective use of information systems and telecommunications within government. Its objective was to support the efficient delivery of business objectives and improved quality of services within the public sector.

10.101. The CCTA believed NP was in the interest of the Government and the public. Its introduction would remove a significant constraint on the development of effective competition in the UK telecommunication market. A decision on the allocation of costs had to be made quickly and could best be achieved by extending OFTEL's powers to allow the DGT to decide how the costs should be borne.

10.102. The CCTA said that the growing competition between operators was illustrated by the range of tariff structures and the differing quality and types of service they offered. The absence of portability was preventing the public sector from taking advantage of this and therefore restricting true competition. Public sector organizations were aware that opportunities existed for reducing their telephony costs but found that the cost of changing numbers negated the benefits of lower tariffs. They were also concerned that the public might receive a lower-quality service as they adjusted to new numbers. This might prevent them reaching Citizen's Charter targets or contravene the principles of open government.

10.103. NP would benefit users by, for example, enabling them to switch to an operator which supplied the service most appropriate to their needs and by eliminating the costs associated with wide-scale change of numbers. The CCTA had asked a number of public sector organizations for their views on how they would benefit from portability and it gave us examples of how its absence had caused them problems.

10.104. The CCTA believed the benefits of NP would extend to the wider economy as operators were forced to become more competitive in order to attract and retain customers. Operators were likely to become more efficient and provide a wider range of tariffs and service levels. Opportunities would also arise for a more innovative relationship between operators and their customers.

10.105. The CCTA said that if the DGT was not given the regulatory powers to allow him to settle the issue quickly, there was a danger that the momentum generated by opening up the telecommunication market would be lost. The commercial interests of operators militated against the industry itself deciding the terms of the agreement; the resulting arrangement might not be in the public interest. The DGT was wholly independent and, if given the power to impose a licence modification, was in a far better position to ensure that NP was introduced in a way that encouraged competition.

The Federation of Communication Services Limited (Cellular Service Provider Group)

10.106. The Cellular Service Provider Group (CSPG) of The Federation of Communication Services Limited said that it represented companies supplying cellular telephony services to over 3 million customers in an industry with an annual growth rate of 80 per cent. The CSPG said that when NP was introduced BT, as the largest operator, would be disadvantaged in two ways. In addition to no longer obtaining revenue from customers who moved, it would lose the amount received for forwarding calls to the customer's new network. BT would clearly wish to recover the latter from the operator to which the calls were forwarded.

10.107. As it would be some time before BT's monopoly position was reduced there would initially be a predominantly one-way requirement for portability. However, there would be other considerations for the small operators when their customers wished to move. In sectors such as mobile telephony the service provider made a significant investment in obtaining customers by subsidizing the cost of their terminal apparatus, some of which amount would be recovered from usage revenues during the period of the contract with the customer. If customers were able to port their telephone numbers, with or without their terminal apparatus, they might take the opportunity to breach the contract with their service providers or, after the initial period of the contract had expired, legitimately to move to other networks without having repaid the cost of the terminal apparatus subsidy.

10.108. The CSPG said that it supported NP between networks with, in addition, portability between service providers but it did not support portability between service providers only.

Federation of the Electronics Industry

10.109. The Federation of the Electronics Industry (FEI) was of the view that OFTEL was the appropriate body to determine the allocation of the costs of NP. The FEI supported the scope of portability as currently proposed and welcomed the inclusion of non-geographic numbers. However, it believed the provision of portability for geographic numbers should not be a licence condition.

10.110. The FEI thought delay in the introduction of NP might inhibit competition. It suggested that in the long term the administrative burden of porting non-geographic numbers might be transferred from operators to an independent agency as far as was possible.

Music Industries Association

10.111. The Music Industries Association (MIA), which told us that it had over 100 members employing a total of around 2,000 staff, thought BT's failure to reach an agreement with other operators on NP was against the public interest. Its members had recently suffered the expense of reprinting stationery and adjusting vehicle livery due to changes in dialling codes and the MIA felt they should now be able to concentrate on their own businesses and not be diverted by more administrative changes. A change of operator should not have to involve the MIA and other contacts in the inconvenience of reprogramming or misdirected calls. If the adverse effects could be remedied or prevented by a modification to the BT licence the MMC should recommend that this be done.

Telecommunications Managers Association

10.112. The Telecommunications Managers Association (TMA) said that it was a national organization designed to meet the professional and technical needs of managers in public and private sector organizations responsible for the application, development and operation of private telecommunication-based services. It had over 1,110 individual members from more than 400 major organizations. Membership was also open to consultants and others interested in the theory and practical applications of telecommunications.

10.113. The TMA said that in considering the allocation of costs of NP wider issues should be taken into account such as lower telecommunication charges, quality of service, open access to the service, and portability of different types of number and technology. The TMA was particularly concerned with the needs of commercial customers, including businesses conducted from domestic premises and large companies.

Telephone numbers were a national resource and should not be controlled by a commercial supplier. Users needed NP to exercise freedom of choice.

10.114. The TMA initially told us that it saw a clear distinction between NP in the short and long term. It thought it was a matter of principle that the entire customer base should not be asked to pay for a service available only to a few. In consequence it favoured a short-term solution wherein the full cost of provision should be allocated to the customer requesting the service. For the longer term it recommended that OFTEL be instructed to consult widely on the issues surrounding the introduction of a national database and to publish its findings.

10.115. The TMA later said that since making its earlier submission to us it had become aware that a solution based on a national database was nearer to resolution than it had been told and the distinction between a short- and long-term solution was no longer clear-cut. The cost of provision of portability had recently been the subject of intensive debate within the industry, which had given the TMA a better understanding of how the costs might decline as the technical solution became more sophisticated. It therefore believed the impetus which the early introduction of NP would give to competition outweighed any disadvantage which might accrue to those customers (of BT and other operators) who could not make use of the facility, yet would have to bear the costs. Its view had been reinforced by the European Commission's intention, expressed in the proposal for a Directive on 'Interconnection in Telecommunications', that 'National Regulatory Authorities shall encourage the earliest possible introduction of the facility whereby end-users who so request can retain their national number at a specific location independent of the organisation providing service, and shall ensure that this facility is available at least in all major centres of population before 1 January 2003'.

10.116. The TMA said that any further delay in introducing NP should be avoided. While the European Commission might be forced to adopt a relaxed implementation date of 2003, effective competition in the UK was being restricted now. It would like to see NP available eventually as a service from all suppliers, not just the dominant operator. Any of the operators offering service in a particular geographic area should be able, eventually, to offer portability to any other in the same area. Every encouragement should be given to the industry to achieve this situation as soon as possible. At that time, the TMA would expect each operator to bear its own costs.

10.117. In the interim, because of the complexities of the market, the TMA thought it unlikely that a common approach to the issue of cost allocation was likely to emerge. At one extreme was the dominant operator: at the other, a new entrant of limited resources and restricted franchise area. Variations in market share in specific geographic areas complicated matters further. The only solution was to allow the DGT to decide on a case-by-case basis. In adopting this stance, the TMA recognized that it might well result, in this particular case, in the cost of NP between BT and Videotron being spread across the entire customer base. The TMA said that there was a need for early consultation on the issues surrounding the introduction of a national database. It also thought the facility to retain a number at a specific location regardless of supplier should become an element of the USO carried, not only by the dominant operator but also, perhaps with derogations dependent on market share, by all operators.

10.118. The TMA acknowledged that it might appear to be endorsing the cross-subsidy by BT's customers of uneconomic services. It was anxious to avoid setting such a precedent by emphasizing that, in this particular case, the public interest was best served by encouraging the development of competition. All BT's customers were thereby likely to benefit, sooner rather than later, from lower prices and improved quality.

Telecommunications Users' Association

10.119. The TUA, an independent body representing about 18 per cent of the UK user market, gave written evidence and attended a hearing. It told us that the majority of its members were commercial firms, including multinational corporations and small to medium-sized businesses. It had 200 residential members and in addition handled about 1,000 enquiries a year from other domestic users. The TUA's primary role was to promote and assist the adoption of modern technology in communications and an open telecommunication environment for users.

10.120. The TUA believed that NP across fixed and mobile networks and independent control of the national numbering scheme were essential for the fair and independent treatment of all operators, and the costs must not inhibit the process.

10.121. Phone-in radio programmes that the TUA had been involved in indicated that domestic consumers were generally dissatisfied with BT and in particular were angered by the company's revenues which were felt to be excessive. This might be partly due to media reports about its profitability. It also reflected the widespread concern over the cost of the standing charge now that the price cap had been removed. This dissatisfaction, together with the attractive services offered by the cable companies, meant that many domestic consumers would be interested in changing operator. The TUA estimated that without NP about 20 per cent of them were actually likely to do so.

10.122. There was high demand for NP among the TUA's commercial members, particularly local authorities and health authorities whose calls were mostly local and which would therefore benefit from changing to a cable operator. However, the TUA thought consumers would generally be unwilling to pay a one-off charge to port their telephone numbers. If the cost was part of the overall package offered by the other operator they might be more likely to pay it. The TUA was aware of about 15 to 20 cases of customers switching to a cable operator and then changing back to BT for quality reasons.

10.123. The TUA said that portability of number blocks should be permitted. Regarding non-geographic numbers, the cost of renting an 800 number in the USA was only slightly higher than that of renting an ordinary exchange line number and it was a common practice for residential customers to rent freephone numbers for use by friends and family. The position was very different in the UK and the rest of Europe, where there was potential for enormous growth in this area. It was conceivable that 0800 numbers could be reconstructed with a country code so that they could be ported within the EC.

10.124. Paragraphs 34B.11 to 34B.15 of BT's licence incorporated good principles for the practice of porting numbers across network operators. Such number functionality incurred a cost to both operators involved but, as with any service, the cost would ultimately be carried by the users. The TUA felt that if there were costs to BT arising out of NP from increased interconnection routeings, as opposed to set-up costs, BT should be allowed to charge these costs to recipient operators. The TUA referred to 34B.15A with regard to the determination and calculation of fully allocated costs. It believed there should be full transparency of charges and their associated costs. The TUA recognized that this suggestion might be unrealistic and would be content if the DGT could guarantee that he was satisfied with the charging mechanisms. The TUA said that although the regulatory regime was excellent in comparison with many others throughout the world, the DGT did not have sufficient powers.

Scottish Advisory Committee on Telecommunications

10.125. The Scottish Advisory Committee on Telecommunications believed NP was the largest single issue now acting as a restraint to competition for domestic and business telephone users. Recent telephone code changes had caused problems for overseas callers and were likely to do so for some time as old catalogues and stationery might stay in circulation even after reprints were issued. A company which changed its telephone number could easily lose contact with customers and potential customers and was thus deterred from changing its operator. The inconvenience and consequential costs of changing a telephone number were significant and if the new operator was unsatisfactory consumers would be reluctant to change again. Although initially NP could be perceived to work against the interests of BT, it gave the company the opportunity to recapture customers in a manner which did not currently exist.

Welsh Advisory Committee on Telecommunications

10.126. The Welsh Advisory Committee said that it supported the submission made by the Business Advisory Committee on Telecommunications (see paragraphs 10.84 to 10.87). NP was particularly important in Wales, as in many areas choice of operator was only just becoming available and customers needed to be able to change operator without changing their numbers. It referred to two instances where customers who had already moved from one operator to another wished to change back but were prevented from doing so by the disadvantages of obtaining another new number. NP should help in this direction too.

Worcester Telecommunications Advisory Committee

10.127. The Worcester Advisory Committee thought it unfair that BT was expected to bear the major share of the costs of NP.

Trade unions

Communication Workers Union and Society of Telecom Executives

10.128. The Communication Workers Union (CWU) and the Society of Telecom Executives (STE) told us that they represented some 300,000 workers in the UK communication industries. The CWU represented engineering, technical, clerical and operator staff in some 40 telecommunication businesses, including BT, Mercury and the major cable companies, and was also the main trade union in the postal industry. The STE represented managerial and professional employees in the telecommunication industry. Both organizations believed the regulatory regime in telecommunications should aim to balance the needs of shareholders, customers (commercial and residential), suppliers and employers.

10.129. Rapid changes in technology, structure and organization were taking place in the telecommunication industry. Customers in the main businesses, but also private subscribers-expected to be able to choose their supplier: most obviously their supplier of terminal equipment but also their service provider and, increasingly, network operator. The aim of NP was to make it easier for a consumer to choose his or her operator by removing the switching costs incurred by that consumer and (especially in the case of businesses and organizations) by customers and other contacts-for example, the costs of changing information databases, repainting vehicles and signs and issuing change-of-number notifications.

10.130. The CWU and STE were concerned that competition in the industry should benefit all customers, not just those in particular categories, and that it should lead to improvements in price, efficiency and quality of service. NP-where technically feasible-formed a logical development of the competitive market that had been introduced in the UK, and was to be introduced elsewhere in Europe. The unions believed it should be implemented in a way that was fair to all operators and did not distort the future market for both new and existing customers.

10.131. Wider geographical portability, where possible, was an additional facility that would be welcome to customers moving home or business premises. Portability would facilitate the transfer of customers to BT-including former customers dissatisfied with an alternative operator-as well as making it easier for customers to transfer from BT, and arrangements for its implementation should be reciprocal.

Allocation of costs

10.132. NP costs included: set-up costs; additional costs involved in a customer's switching from one operator to another; costs incurred when a customer moved geographically; and conveyance costs. Although it was difficult at present to estimate the costs involved in each of these areas, it was important to lay down a reliable and generally accepted means of establishing actual costs as soon as possible. One important factor would be the type of accounting conventions used in determining costs, eg the use of long-run incremental or fully allocated costs.

10.133. The CWU and STE believed allocating the costs of NP wholly or disproportionately to BT would in effect give additional market entry assistance to its competitors. If this was a purpose of OFTEL's policy, that purpose must be made explicit and open because, as with all market assistance, it would represent a distortion of the competitive market. It was important to base policy on reality. There were cases where NP had general benefits, and in these circumstances a case for general sharing of the costs could be made. However, such conditions were relatively few and could be separately accounted for. In most cases, the benefits of NP were particular and the costs should be treated likewise.

10.134. The CWU and STE believed OFTEL should be required to ensure that:

- (a) the set-up costs of NP were shared between telecommunication operators in line with the market shares which they enjoyed;
- (b) the additional operational costs involved in particular instances of portability were the responsibility of the beneficiaries-ie the individuals or businesses which were transferring from one operator to another, and/or the operators benefiting from those individual transfers; and
- (c) customers for NP did not indirectly subsidize the establishment of other network services that benefited from the set-up investments required for portability.

Others

The Barnsley Chronicle

10.135. The Barnsley Chronicle said that it had recently changed its telephone system. It now had Philips switchgear and although its incoming calls used BT lines, its outgoing calls were through Yorkshire Cable lines because they were cheaper. This situation had arisen because the Chronicle had been unable to transfer its telephone numbers to Yorkshire Cable and had considered the cost of changing its numbers too high. It thought BT was abusing its monopoly position.

Members of the public

Mr Ellison

10.136. We received a submission from Mr Ian Ellison, a telecommunication consultant and non-executive director of a cable company, who as a DTI official had been responsible for work on the Act and for drafting the initial licence subsequently granted to BT. He argued that NP involved no more than the supply of a type or description of telecommunication service. Under Condition 1 of its licence BT had been obliged to provide these services on request at all times since it became practicable to provide them but had simply refused to do so. This was an abuse of BT's dominant position. Because the refusal to supply was a contravention of the conditions of BT's licence, the DGT had statutory duties under section 16 of the Act to make compliance orders. Instead he had included additional provisions in Condition 34B which were redundant, over-complex and ineffective. All references to NP should be deleted from the BT licence; BT should be required to provide NP under the other conditions of its licence and should recover the costs from the generality of its customers through their ordinary bills. We asked OFTEL to comment on Mr Ellison's views. OFTEL said that his argument was incorrect (see paragraph 8.6 for details of its response).

10.137. Asked to comment further, Mr Ellison said that OFTEL's response had raised matters of legal interpretation but had in no way countered his argument. He agreed that NP involved both the 'provision of a facility' (which in the language of the Act amounted to the 'installation of apparatus') and the conveyance of messages. BT was obliged to do both under Condition 1, the requirement to install apparatus being both a licence requirement and a necessary preliminary to the provision of conveyance services. Conditions 16 and 17 made full provision for resolving any questions about charging for any costs incurred by BT when installing apparatus for NP.

Others

10.138. A member of the public from Southampton thought the pool of numbers now available was large and there was therefore no need for BT to re-use existing numbers if its customers changed to other operators. As exchanges were now digital and administration was via software, it was easy to transfer a number to another operator at little cost to BT. However, the cost to individuals and businesses of notifying others of a change of number was considerable. If NP was possible in other countries it had to be possible in the UK and would provide flexibility and mobility of custom which could only improve competitiveness between

operators. This witness thought BT's failure to reach an agreement with other operators was against the public interest.

10.139. Another member of the public from Gloucester, who was both a customer and a shareholder of BT, said that under OFTEL's current proposal BT would have to pay for the majority of the costs of NP which would only benefit its rivals. This seemed unfair. The witness said that when BT had been privatized the investors had realized that it would face competition and that the industry would be regulated to enable small operators to compete on a level playing field. However, the present proposal was going too far and could be counter-productive, particularly as many of BT's competitors were subsidiaries of large overseas companies.

10.140. A third member of the public, from Bolton, said that he would be able to make a considerable saving on his telephone bill if he changed to another operator. He was self-employed and wished to retain his existing number and thought it unfair that he was unable to do so.

H H LIESNER (*Chairman*)

D R FAIRBAIRN

S C FINCH

J S METCALFE

D J MORRIS

G F OWEN

A J NIEDUSZYNSKI (*Secretary*)

17 November 1995