Neutral citation [2004] CAT 8

IN THE COMPETITION APPEAL TRIBUNAL

Case: 1018/3/3/03

Victoria House
Bloomsbury Place
London WC1A 2EB

12 May 2004

Before:

Sir Christopher Bellamy (President)
Mr Michael Blair QC
Dr Arthur Pryor CB

BETWEEN:

BRITISH TELECOMMUNICATIONS PLC

Appellant

-v-

OFFICE OF COMMUNICATIONS

(FORMERLY THE DIRECTOR GENERAL OF TELECOMMUNICATIONS)

Respondent

supported by

VODAFONE LIMITED

and

O2 (UK) LIMITED

Interveners

Mr Gerald Barling QC, Mr Alan MacLean and Ms Sarah Stevens (instructed by BT Legal) appeared for the appellant.

Mr Richard Fowler QC and Miss Kassie Smith (instructed by the Director General of Telecommunications) appeared for the respondent.

Ms Elizabeth McKnight of Herbert Smith appeared for Vodafone Limited

Mr Stephen Kon of SJ Berwin appeared for O2 (UK) Limited

Heard at New Court on 4 and 5 December 2003

JUDGMENT

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I INTRODUCTION

General

1. The only issue in this case is whether the supply by British Telecommunications plc ("BT") of what are known as Radio Base Station ("RBS") backhaul circuits constitutes "interconnection" within the meaning of Directive 97/33/EC of the European Parliament and of the Council of 30 June 1997 on interconnection in Telecommunications with regard to ensuring universal service and interoperability through the principles of Open Network Provision (ONP) 1997 OJ L199/32 ("the Interconnection Directive"), as implemented in the United Kingdom by the Telecommunications (Interconnection) Regulations 1997 SI 1997 no. 2931 ("the 1997 Regulations").

2. If the supply of RBS backhaul circuits constitutes "interconnection" the respondent, formerly the Director General of Telecommunications ("the Director") and now the Office of Communications ("OFCOM"), was entitled, pursuant to Regulation 6(6) of the 1997 Regulations, to make a Direction dated 23 June 2003 "to resolve a dispute between BT and Vodafone regarding wholesale connections between BT's and Vodafone's networks (radio base station backhaul circuits)" ("the Direction"), on the basis that the dispute resolved by the Direction was a "dispute concerning interconnection" within the meaning of those provisions. If that dispute was not such a "dispute concerning interconnection" then it is common ground that the respondent had no power to make the Direction.

3. The effect of the Direction is to impose on BT an obligation to supply RBS backhaul circuits to Vodafone Limited ("Vodafone") and other operators in an equivalent position upon written request within a reasonable period on "wholesale" terms at cost-orientated prices, rather than at the retail prices which BT has charged hitherto. If the Direction is valid, Vodafone and, apparently, other mobile telephone operators will be able to acquire RBS backhaul circuits from BT at lower, cost-orientated, prices.

4. In its notice of appeal dated 21 August 2003 BT raises only one ground of appeal, namely that the provision by BT of RBS backhaul circuits to Vodafone does not involve "a dispute concerning interconnection" within the meaning of the Interconnection Directive and 1997 Regulations.

RBS backhaul circuits

5. A radio base station ("RBS") is a telephone mast which receives signals from, or transmits signals to, mobile telephone handsets. From an RBS, the signals in question must be conveyed to a base station controller ("BSC") and thence to the mobile telephone operator's mobile telephone exchanges, called "MTXs". The MTX is often colloquially referred to as "the switch" since it is from there that the calls are switched, i.e. routed, to their ultimate destination. The MTXs of a mobile operator are themselves linked together by circuits.

6. Each MTX is in turn interconnected with the BT network (and other networks) at a point of interconnection so as to enable the mobile operators' subscribers to communicate with subscribers to the BT network and other networks.

7. A typical mobile operator will have about 25-30 MTXs and 10,000 RBSs. Vodafone, in common with other mobile telephone operators, has a significant number of RBSs across the United Kingdom.

8. Each of Vodafone's RBSs must have a connection to its BSC and MTX. Since, in Vodafone's case, the BSC is usually situated within the MTX, it is convenient shorthand to refer to the relevant connection as being between the RBS and the MTX although, technically speaking, the connection is between the RBS and the BSC.

9. The connection between the RBS and the MTX is provided by what is known as an RBS backhaul circuit. An RBS backhaul circuit is, essentially, a means of conveying signals between a mobile telephone operator's RBS and one of that operator's MTXs. That connection may be provided either by a microwave link, or by a copper/fibre cable, typically of 2Mbit/s capacity. The use of a microwave link may be difficult because that technology requires a clear "line of sight" between the RBS and the MTX. Hence, in many cases, a copper/fibre cable is required to convey signals from the RBS to the MTX and vice versa.

10. It is common ground that a mobile telephone operator may either "self provide" an RBS backhaul circuit, or purchase such a circuit from a supplier. According to the Direction at

paragraph 2.44, more recently established mobile telephone operators such as Orange, T-Mobile and Hutchinson 3G have largely opted to self provide, but for historical regulatory reasons the earlier networks established by Vodafone and Cellnet (now O2) have been to a considerable extent based on the purchase of RBS backhaul circuits. It appears that about 55 per cent of RBS backhaul circuits are supplied by BT: see paragraph 2.37 of the Direction. An example of the product supplied by BT is "Netstream 16 Longline". The agreed technical aspects of RBS backhaul circuits are set out in more detail in section V below.

The essential submissions of the parties

11. BT's essential submission is that the concept of "interconnection" for the purposes of the Interconnection Directive is confined to the linking of two distinct telecommunications networks for the purpose of permitting a customer of network A to communicate with any customer of network B, and vice versa, in order to achieve what is known as "end to end" or "any to any" interoperability. That concept, says BT, does not apply to the supply of RBS backhaul circuits, the function of which is to *complete Vodafone's network*, by linking *Vodafone's* RBS with *Vodafone's* MTX, essentially by purchasing transmission capacity from BT, rather than *interconnecting* Vodafone's network with BT's network in the sense intended by the Interconnection Directive. BT supports that submission by reference to the text, context and purpose of the Interconnection Directive.

12. The Director, whom for convenience we continue to treat as the respondent (see paragraph 79 below), argues that what was described in the Director's argument as "transiting interconnection" is "interconnection" within the meaning of the text, context and purpose of the Interconnection Directive which, says the Director, is not limited to the "classic" case of interconnection on which BT relies. In addition, says the Director, the supply of RBS backhaul circuits is, or is closely equivalent to, the supply of a "leased line" within the meaning of the Interconnection Directive, and constitutes a "partial private circuit" (PPC), or part leased line, closely analogous (and indeed functionally identical) to the PPCs already subject to previous Directions made by the Director under the 1997 Regulations.

II BACKGROUND

General

13. As the Tribunal understands it, until at least the 1980s most telecommunications services within the European Community were provided by State owned concerns having domestic monopolies within their national territories. In the United Kingdom, such services were provided by the Post Office and the Corporation of Kingston upon Hull as regards the Hull area. Thus the question of "interconnection", in the sense of arrangements enabling subscribers of one network to communicate with subscribers of another network, arose mainly in relation to international calls or, in the United Kingdom, as between the Post Office network and that of Kingston upon Hull.

14. In 1981 the telecommunications business of the Post Office was transferred to BT's predecessor corporation, British Telecom, under the Telecommunications Act 1981. In 1982 a second provider, Mercury Communications, was licensed as a telecommunications network provider. In 1984 The Telecommunications Act 1984 ("the 1984 Act") established the regulatory framework for telecommunications in the United Kingdom which prevailed until 2003.

15. Under section 7 of the 1984 Act public telecommunications operators ("PTOs") required an individual licence. The conditions set out in BT's licence ("the BT licence") essentially formed the basis for the regulation of BT under the system established by the 1984 Act.

16. In the ensuing years, with the advent of new technologies, other providers were licensed to run telecommunications networks including mobile telephone companies such as Vodafone and Cellnet (now O2), and cable companies such as Cable & Wireless, NTL and many others. As we understand it, by the mid 1990s about 140 operators had the status of PTOs: Case 302/94 *R v. Secretary of State ex.p. British Telecommunications* [1996] ECR I-6447, at paragraph 18.

17. These developments led to BT entering into a number of interconnection agreements with other network operators under what was then Condition 13 of BT's Licence, in order to enable subscribers of one operator to communicate with subscribers of other operators. Up to 1997, interconnection in the United Kingdom depended on an operator having a "Relevant Connectable System" (RCS). "RCS status" was in principle dependent on an operator investing in infrastructure to develop his own network, before being allowed to interconnect with another network.

18. At the level of the European Community, proposals for the development of a more open and competitive market in telecommunications led initially to the adoption of Council Directive 90/387/EEC of 28 June 1990 on the establishment of the internal market for telecommunications services through the implementation of open network provision, OJ 1990 L192/1 ("the ONP Framework Directive").

19. The ONP Framework Directive of 1990 was followed in 1992 by Council Directive 92/44/EEC of 5 June 1992 on the application of open network provision to leased lines, OJ 1992 L165/27 ("the Leased Lines Directive"). The effect of the Leased Lines Directive, among other things, was to require telecommunications organisations to make available a minimum number of leased lines (see paragraphs 38 et seq below) and to lay down certain general principles applicable to tariffs.

20. For present purposes, however, the most significant development came in 1997 with the adoption of the Interconnection Directive. The Interconnection Directive formed part of the 1997 package of liberalisation and harmonisation measures ("the 1997 package") which consisted of:

- The Interconnection Directive

- Council Directive 97/13/EC of the European Parliament and of the Council of 10 April 1997 on a common framework for general authorisations and individual licenses in the field of telecommunications services, OJ 1997 L117/15 (" the Licensing Directive")

- Council Directive 97/51/EC of the European Parliament and of the Council of 6 October 1997 amending Council Directives 90/387/EEC and 92/44/EEC for the purposes of adaptation to a competitive environment in telecommunications, OJ 1997 L295/33. This Directive amended the ONP Framework Directive and the Leased Lines Directive

- Council Directive 98/10/EC of the European Parliament and of the Council of 26 February 1998 on the application of open network provision (ONP) to voice telephony and on universal service for telecommunications in a competitive environment, OJ 1998 L101/41 ("the Voice Telephony Directive").

The provisions of the Interconnection Directive

21. Since this appeal turns largely on the interpretation of the Interconnection Directive, we set out the terms of that Directive in some detail. The relevant provisions of the Interconnection Directive are as follows (footnotes omitted):

The Recitals

> "1. Whereas from 1 January 1998, with transition periods for certain Member States, the provision of telecommunications services and infrastructure in the Community will be liberalized; whereas the Council Resolution of 7 February 1994 on universal service principles in the telecommunications sector recognizes that in order to promote Community-wide telecommunications services there is a need to ensure interconnection of public networks and, in the future competitive environment, interconnection between different national and Community operators; whereas Council Directive 90/387/EEC of 28 June 1990 on the establishment of the internal market for telecommunications services through the implementation of open network provision lays down harmonized principles for open and efficient access to, and use of, public telecommunications networks and, where applicable, publicly available services; whereas the Council Resolution of 22 July 1993 on the review of the situation in the telecommunications sector and the need for further development in that market recognises that open network provision measures provide an appropriate framework for harmonising interconnection conditions; whereas this harmonisation is essential for the establishment and proper functioning of the internal market for telecommunications services; whereas the Council Resolution of 18 September 1995 on the implementation of the future regulatory framework for telecommunications recognises as key factors of this future regulatory

framework the maintenance and development of a universal service as well as a specific regulation on interconnection, and sets out some guidelines on these subjects;

2. Whereas a general framework for interconnection to public telecommunications networks and publicly available telecommunications services, irrespective of the supporting technologies employed, is needed in order to provide end-to-end interoperability of services for Community users; whereas fair, proportionate and non-discriminatory conditions for interconnection and interoperability are key factors in fostering the development of open and competitive markets…

4. Whereas the regulatory framework for interconnection covers those situations where the interconnected networks are used for the commercial provision of publicly available telecommunications services; whereas the regulatory framework for interconnection does not cover cases where a telecommunications network is used for the provision of telecommunications services available only to a specific end-user or to a closed user group, but covers only cases where a telecommunications network is used for the provision of publicly available services; whereas telecommunications networks which are interconnected may be owned by the parties involved or may be based on leased lines and/or transmission capacity not owned by the parties involved;

5. Whereas, following the removal of special and exclusive rights for telecommunications services and infrastructure in the Community, the provision of telecommunications networks or services may require some form of authorization by Member States; whereas organizations authorized to provide public telecommunications networks or publicly available telecommunications services in all or part of the Community should be free to negotiate interconnection agreements on a commercial basis in accordance with Community law, subject to supervision and, if necessary, intervention by national regulatory authorities; whereas it is necessary to ensure adequate interconnection within the Community of certain networks and interoperability of services essential for the social and economic well-being of Community users, notably fixed and mobile public telephone networks and services, and leased lines; whereas, for the purpose of this Directive 'public' does not refer to ownership, nor does it refer to a limited set of offerings designated as 'public networks' or 'public services', but means any network or service that is made publicly available for use by third parties;

6. Whereas it is necessary to define those organizations which have rights and obligations for interconnection; whereas in order to stimulate development of new types of telecommunications services, it is important to encourage new forms of interconnection and special network access at points other than the network termination points offered to the majority of end-users; whereas the market power of an organization depends on a number of factors including its share of the relevant product or service market in the relevant geographical market, its turnover relative to the size

of the market, its ability to influence market conditions, its control of the means of access to end-users, its international links, its access to financial resources and its experience in providing products and services in the market; whereas, the determination of which organizations have significant market power should be undertaken by national regulatory authorities taking into account the situation in the relevant market; …

9. Whereas it is important to lay down principles to guarantee transparency, access to information, non-discrimination and equality of access, in particular for organizations with significant market power;

10. Whereas pricing for interconnection is a key factor in determining the structure and the intensity of competition in the transformation process towards a liberalized market; whereas organizations with significant market power must be able to demonstrate that their interconnection charges are set on the basis of objective criteria and follow the principles of transparency and cost orientation …

12. Whereas national regulatory authorities have an important role in encouraging the development of a competitive market in the interests of Community users, and of securing adequate interconnection of networks and interoperability of services; whereas adequate interconnection takes account of the requests of the operator wishing to interconnect, in particular concerning the most appropriate interconnection points, with each operator having responsibility for carrying calls and setting charges to each other up to the interconnection point; whereas negotiation of interconnection agreements can be facilitated by national regulatory authorities setting down certain conditions in advance, in accordance with Community law, taking into account the recommendations defined by the Commission so as to facilitate the development of a genuine European home market, and identifying other areas to be covered in interconnection agreements; whereas in the event of a dispute over interconnection between parties in the same Member State, an aggrieved party must be able to call on the national regulatory authority to resolve the dispute; whereas national regulatory authorities must be able to require organizations to interconnect their facilities, where it can be demonstrated that this is in the users' interests; …"

The operative provisions of the Directive

"Article 1

Scope and aim

This Directive establishes a regulatory framework for securing in the Community the interconnection of telecommunications networks and in particular the interoperability of services, and with regard to ensuring provision of universal service in an environment of open and competitive markets. It concerns the harmonization of conditions for open and efficient

interconnection of and access to public telecommunications networks and publicly available telecommunications services.

Article 2

Definitions

1. For the purposes of this directive:

(a) ‘interconnection’ means the physical and logical linking of telecommunications networks used by the same or a different organization in order to allow the users of one organization to communicate with users of the same or another organization, or to access services provided by another organization. Services may be provided by the parties involved or other parties who have access to the network;

(b) ‘public telecommunications network’ means a telecommunications network used, in whole or in part, for the provision of publicly available telecommunications services;

(c) ‘telecommunications network’ means transmission systems and, where applicable, switching equipment and other resources which permit the conveyance of signals between defined termination points by wire, by radio, by optical or by other electromagnetic means;

(d) ‘telecommunications services’ means services whose provision consists wholly or partly in the transmission and routing of signals on telecommunications networks, with the exception of radio and television broadcasting;

(e) ‘users’ means individuals, including consumers or organizations, using or requesting publicly available telecommunications services;
…

2. Further definitions given in Directive 90/387/EEC shall apply, where relevant.

Article 3

Interconnection at national and Community level

1. Member States shall take all necessary measures to remove any restrictions which prevent organizations authorized by Member States to provide public telecommunications networks and publicly available telecommunications services from negotiating interconnection agreements between themselves in accordance with Community law. … Technical and commercial arrangements for interconnection shall

be a matter for agreement between the parties involved, subject to the provisions of this Directive and the competition rules of the Treaty.

2. Member States shall ensure the adequate and efficient interconnection of the public telecommunications networks set out in Annex 1, to the extent necessary to ensure interoperability of these services for all users within the Community
…

Article 4

Rights and obligations for interconnection

1. Organizations authorized to provide public telecommunications networks and/or publicly available telecommunications services as set out in Annex II shall have a right and, when requested by organizations in that category, an obligation to negotiate interconnection with each other for the purpose of providing the services in question, in order to ensure provision of these networks and services throughout the Community
…

2. Organizations authorized to provide public telecommunications networks and publicly available telecommunications services as set out in Annex 1 which have significant market power shall meet all reasonable requests for access to the network including access at points other than the network termination points offered to the majority of end-users.

3. An organization shall be presumed to have significant market power when it has a share of more than 25% of a particular telecommunications market in the geographical area in a Member State within which it is authorized to operate …

Article 6

Non-discrimination and transparency

For interconnection to public telecommunications networks and publicly available telecommunications services as set out in Annex I provided by organizations which have been notified by national regulatory authorities as having significant market power, Member States shall ensure that:

(a) the organisations concerned adhere to the principle of non-discrimination with regard to interconnection offered to others. …

(b) all necessary information and specifications are made available on request to organizations considering interconnection, in order to facilitate conclusion of an agreement;

…

Article 7

Principles for interconnection charges and cost accounting systems

1. Member States shall ensure that the provisions of paragraphs 2 to 6 apply to organisations operating the public telecommunications networks and/or publicly available telecommunications services as set out in Parts 1 and 2 of Annex I, which have been notified by national regulatory authorities as having significant market power.

2. Charges for interconnection shall follow the principles of transparency and cost orientation. …

3. National regulatory authorities shall ensure the publication, in accordance with Article 14(1) of a reference interconnection offer. The reference interconnection offer shall include a description of the interconnection offerings broken down into components according to market needs, and the associated terms and conditions including tariffs …

Article 8

Accounting separation and financial reports

1. Member States shall require organisations providing public telecommunications networks and/or publicly available telecommunications services which have special or exclusive rights for the provision of services in other sectors in the same or another Member State to keep separate accounts for the telecommunications activities …

2. Member States shall require organisations operating public telecommunications networks and/or publicly available telecommunications services as set out in Parts 1 and 2 of Annex I and notified by national regulatory authorities as organisations having significant market power which provide public telecommunications networks and/or telecommunications services available for users and which offer interconnection services to other organisations, to keep separate accounts for, on the one hand, their activities related to interconnection – covering both interconnection services provided internally and interconnection services provided to others – and, on the other hand, other activities, so as to identify all elements of cost and revenue …

Article 9

General responsibilities of the national regulatory authorities

1. National regulatory authorities shall encourage and secure adequate interconnection in the interests of all users, exercising their responsibility in a way that provides maximum economic efficiency and gives the maximum benefit to end-users. In particular, national regulatory authorities shall take into account:

- the need to ensure satisfactory end-to-end communications for users,
- the need to stimulate a competitive market,
- the need to ensure the fair and proper development of a harmonized European telecommunication market,
- the need to cooperate with their counterparts in other Member States,
- the need to promote the establishment and development of trans-European networks and services, and the interconnection of national networks and interoperability of services, as well as access to such networks and services,
- the principles of non-discrimination (including equal access) and proportionality,
- the need to maintain and develop universal service

…

5. In the event of an interconnection dispute between organizations in a Member State, the national regulatory authority of that Member State shall, at the request of either party, take steps to resolve the dispute within six months of this request. The resolution of the dispute shall represent a fair balance between the legitimate interests of both parties.

In so doing, the national regulatory authority shall take into account, inter alia:

- the user interest,
- regulatory obligations or constraints imposed on any of the parties,
- the desirability of stimulating innovative market offerings, and of providing users with a wide range of telecommunications services at a national and at a Community level,
- the availability of technically and commercially viable alternatives to the interconnection requested,
- the desirability of ensuring equal access arrangements,
- the need to maintain the integrity of the public telecommunications network and the interoperability of services,
- the nature of the request in relation to the resources available to meet the request,
- the relative market positions of the parties,
- the public interest (e.g. the protection of the environment),
- the promotion of competition,
- the need to maintain a universal service.

A decision on the matter by a national regulatory authority shall be made available to the public in accordance with national procedures.

The parties concerned shall be given a full statement of the reasons on which it is based …

ANNEX I

SPECIFIC PUBLIC TELECOMMUNICATIONS NETWORKS AND PUBLICLY AVAILABLE TELECOMMUNICATIONS SERVICES
(referred to in Article 3 (2))

The following public telecommunications networks and publicly available telecommunications services are considered of major importance at European level.
Organizations providing the public telecommunications networks and/or publicly available services identified below which have significant market power are subject to specific obligations with regard to interconnection and access, as specified in Articles 4 (2), 6 and 7.

Part 1

The fixed public telephone network
The fixed public telephone network means the public switched telecommunications network which supports the transfer between network termination points at fixed locations of speech and 3,1 kHz bandwidth audio information, to support inter alia:
- voice telephony,
- facsimile Group III communications, in accordance with ITU-T Recommendations in the 'T-series',
- voice band data transmission via modems at a rate of at least 2 400 bits/s, in accordance with ITU-T Recommendations in the 'V-series'.

Access to the end-user's network termination point is via a number or numbers in the national numbering plan.
The fixed public telephone service according to Directive 95/62/EC of the European Parliament and of the Council of 13 December 1995 on the application of open network provision (ONP) to voice telephony.

The fixed public telephone service means the provision to end-users at fixed locations of a service for the originating and receiving of national and international calls, and may include access to emergency (112) services, the provision of operator assistance, directory services, provision of public pay phones, provision of service under special terms and/or provision of special facilities for customers with disabilities or with special social needs.
Access to the end-user is via a number or numbers in the national numbering plan.

Part 2

The leased lines service
Leased lines means the telecommunications facilities which provide for transparent transmission capacity between network termination points, and which do not include on-demand switching (switching functions which the user can control as part of the leased line provision). They may include systems which allow flexible use of the leased line bandwidth, including certain routing and management capabilities.

Part 3

Public mobile telephone networks
A public mobile telephony network is a public telephone network where the network termination points are not fixed locations
Public mobile telephone services
A public mobile telephone service is a telephony service whose provision consists, wholly or partly, in the establishment of radio communications to one mobile user, and makes use wholly or partly of a public mobile telephone network.

ANNEX II

ORGANIZATIONS WITH RIGHTS AND OBLIGATIONS TO NEGOTIATE INTERCONNECTION WITH EACH OTHER IN ORDER TO ENSURE COMMUNITY-WIDE SERVICES
(referred to in Article 4 (1))

This Annex covers those organizations which provide switched and unswitched bearer capabilities to users upon which other telecommunications services depend.
Organizations in the following categories have both rights and obligations to interconnect with each other, in accordance with Article 4(1). Interconnection between these organizations is subject to additional supervision by national regulatory authorities, in accordance with Article 9(2). Special interconnection charges, terms and conditions may exist for these categories of organizations in accordance with Article 7(3).
1. Organizations which provide fixed and/or mobile public switched telecommunications networks and/or publicly available telecommunications services, and in so doing control the means of access to one or more network termination points identified by one or more unique numbers in the national numbering plan. (See notes below).
2. Organizations which provide leased lines to users' premises.
3. Organizations which are authorized in a Member State to provide international telecommunications circuits between the Community and third countries, for which purpose they have exclusive or special rights.

4. Organizations providing telecommunications services which are permitted in this category to interconnect in accordance with relevant national licensing or authorization schemes.

Notes

Control of the means of access to a network termination point means the ability to control the telecommunications services available to the end-user at that network termination point and/or the ability to deny other service providers access to the end-user at the network termination point. Control of the means of access may entail ownership or control of the physical link to the end-user (whether wire or wireless), and/or the ability to change or withdraw the national number or numbers needed to access an end-user's network termination point.

…

ANNEX IV

LIST OF EXAMPLES OF ELEMENTS FOR INTERCONNECTION CHARGES
(referred to in Article 7 (3))

Interconnection charges refer to the actual charges payable by interconnected parties.

The tariff structure refers to the broad categories into which interconnection charges are divided, e.g. charges to cover initial implementation of the physical interconnection, based on the costs of providing the specific interconnection requested (e.g. specific equipment and resources; compatibility testing),

- rental charges to cover the on-going use of equipment and resources (connection maintenance, etc.),
- variable charges for ancillary and supplementary services (e.g. access to directory services; operator assistance; data collection; charging; billing; switch-based and advanced services etc.),
- traffic related charges, for the conveyance of traffic to and from the interconnected network (e.g. the costs of switching and transmission), which may be on a per minute basis, and/or on the basis of additional network capacity required.

Tariff elements refer to the individual prices set for each network component or facility provided to the interconnected party.

Tariffs and charges for interconnection must follow the principles of cost orientation and transparency, in accordance with Article 7(2).

Interconnection charges may include a fair share, according to the principle of proportionality, of joint and common costs and the costs incurred in providing equal access, and number portability, and the costs of ensuring essential requirements (maintenance of the network integrity; network security in cases of emergency; interoperability of services; and protection of data)."

The 1997 Regulations and BT's Licence

22. The 1997 Regulations came into force on 31 December 1997. By virtue of Regulation 2(1) of the 1997 Regulations, words and expressions used in those Regulations shall, unless the context otherwise requires, have the same meaning as in the Interconnection Directive and in Council Directive 90/387/EEC on the establishment of the internal market for telecommunications services through the implementation of Open Network Provision 1990 OJ L192/1 (already referred to at paragraph 18 above as "the ONP Framework Directive").

23. By virtue of the system established by the 1997 Regulations, a person who was authorised or permitted to run or provide publicly available telecommunications systems (a Public Operator) whom the Director had determined to be an organisation having Significant Market Power within the meaning of Regulation 4(1)(a) of the 1997 Regulations, was required on request to provide interconnection, in accordance with the terms of that Public Operator's licence, with the telecommunications system of another Public Operator falling within the categories set out in Schedule 2 to the 1997 Regulations.

24. According to Regulation 2(2) of the 1997 Regulations "interconnection" means:

> "the physical and logical linking of telecommunications networks used by the same or a different organisation in order to allow the users of one organisation to communicate with users of the same or another organisation, or to access services provided by another organisation. Services may be provided by the parties involved or other parties who have access to the network;"

25. This is the same definition as that set out in Article 2(1) (a) of the Interconnection Directive: see above.

26. Regulation 3 of the 1997 Regulations provides:

> "(1) A relevant licence shall include a provision imposing an obligation on the Licensee to negotiate interconnection when requested by another such Public Operator…
>
> (3) A licence granted to an Operator having Significant Market Power in a relevant market shall include a condition imposing an obligation to meet all reasonable requests for access to the network including access at points other than the network termination points offered to the majority of end-users".

27. Regulation 4(1)(b)(i) of the 1997 Regulations provides that it shall be presumed that

> "a Public Operator which has 25% or more of the relevant market, in the geographical area within which it is licensed to operate has Significant Market Power …"

28. Regulations 3 and 4 of the 1997 Regulations implement in the United Kingdom the obligations set out in Articles 3 and 4 of the Interconnection Directive: see above.

29. Pursuant to the powers contained in the 1997 Regulations, BT's Licence under section 7 of the Telecommunications Act 1984 was in due course modified so as to include various conditions relating to interconnection. Those conditions appear in Part C of BT's Licence, but were applicable only where the Director had determined that BT had Significant Market Power in accordance with Regulation 4 (1) of the 1997 Regulations: see Condition 44.

30. In particular, pursuant to Condition 45(1)(a) of BT's licence, BT was obliged to enter into an interconnection agreement with another Operator which is a Schedule 2 Public Operator, if such Operator so requires:

> "to connect, and keep connected, to any of the Applicable Systems, or to permit to be so connected and kept connected, the Operator's telecommunications system and accordingly to establish and maintain such one or more Points of Connection as are reasonably required and are of sufficient capacity and in sufficient number to enable messages conveyed or to be conveyed by means of any of the Applicable Systems to be conveyed in such a way as conveniently to meet all reasonable demands for the Conveyance of Messages between the operator's system and the Applicable Systems …"

31. According to the definitions in Schedule 1, Part 1, of BT's Licence, "Applicable Systems" means "any or all of the telecommunications systems run by the Licensee under this Licence unless the context otherwise requires"; and "Point of Connection" means "a point at which the Applicable Systems and an Operator's system are connected".

32. Condition 46 of its Licence required BT to publish a "Reference Interconnection Offer". Condition 47 of the Licence required BT to provide its interconnection services on a "cost orientated basis", i.e. that BT's charges "are reasonably derived from the costs of providing

the service based on a forward looking incremental cost approach". This requirement was set out in more detail in Condition 69 of BT's Licence. Condition 50 required BT to maintain separate cost accounting systems in respect of its charges for interconnection. Those requirements reflect Article 7 of the Interconnection Directive.

33. Pursuant to Condition 57.1(a) of BT's Licence, BT "shall not … show undue preference to, or exercise undue discrimination against, particular persons … as respects … (ii) Interconnection of any description which the licensee provides pursuant to Part C …" This implements the prohibition on non-discrimination which is set out in Article 6 of the Interconnection Directive.

34. "Interconnection" under BT's Licence is defined in the same terms as under the 1997 Regulations and the Interconnection Directive: see above.

35. Regulation 6 of the 1997 Regulations, which implements and closely follows Article 9 of the Interconnection Directive, provides:

> "6(1) In exercising their functions conferred by or under the Act, and these Regulations, the Secretary of State and the Director shall encourage and secure adequate interconnection in the interests of all users, exercising their responsibility in a way that provides maximum economic efficiency and gives the maximum benefit to end-users, and in doing so shall have regard to the following—
>
> (a) the need to ensure satisfactory end to end communication for users;
> (b) the need to stimulate a competitive market;
> (c) the need to ensure the fair and proper development of a harmonised European telecommunication market;
> (d) the need to co-operate with the regulatory authorities of other Member States;
> (e) the need to promote the establishment and development of trans European networks and services, and the interconnection of national networks and interoperability of services, as well as access to such networks and services;
> (f) the principles of non-discrimination (including equal access) and proportionality;
> (g) the need to maintain and develop a universal service.
>
> …
>
> (3) In pursuit of the aims stated in paragraph (1) above the Director may intervene at any time, and shall do so on the request of either party, in order to make a

direction specifying issues which must be covered in an interconnection agreement, or to make a direction that specific conditions be observed by one or more parties to such an agreement. The Director may in exceptional circumstances make a direction that changes be made to interconnection agreements already concluded where it is justified to ensure effective competition or interoperability of services for users or both.

…

(6) Where there is a dispute concerning interconnection between organisations the Director shall, at the request of either party, take steps to resolve the dispute within six months of the date of the request. The direction which the Director makes to resolve the dispute shall represent a fair balance between the legitimate interests of both parties. The direction shall be notified to the parties and published in accordance with regulation 8(3). The parties concerned shall be given a full statement of the reasons on which it is based.

…

(8) In exercising his duties under paragraphs (6) … above, the Director shall take into account inter alia -

(a) the interests of users;
(b) regulatory obligations or constraints imposed on any of the parties;
(c) the desirability of stimulating innovative market offerings, and of providing users with a wide range of telecommunications services both at national and Community level;
(d) the availability of technically and commercially viable alternatives to the interconnection requested;
(e) the desirability of ensuring equal access arrangements;
(f) the need to maintain the integrity of the public telecommunications network and interoperability of services;
(g) the nature of the request in relation to the resources available to meet the request;
(h) the relative market positions of the parties;
(i) the public interest;
(j) the promotion of competition;
(k) the need to maintain a universal service."

36. The "Schedule 2 Public Operators" with whom BT was required by Condition 45(1)(a) of its Licence to enter into interconnection agreements are defined by Schedule 2 to the 1997 Regulations, which implements Annex II of the Directive:

"Public Operators who are authorised to provide switched and unswitched bearer capabilities to users upon which other telecommunications services depend, and who

1. provide (i) fixed or (ii) mobile public switched telecommunications networks or (iii) publicly available telecommunications services or any combination of (i) (ii) or (iii), and in so doing control the

means of access to one or more network termination points identified by one or more unique numbers in the national numbering plan;

2. provide leased lines to users' premises

3. are authorised in a Member State of the Community to provide international telecommunications circuits between the Community and third countries, for which purposes they have special or exclusive rights, or

4. provide publicly available fixed or mobile telecommunications services or both and are authorised to connect their systems to other Public Operators as described above and fall within the class of Public Operators to which the Public Operator from which interconnection is sought is required by its relevant licence to provide such interconnection."

37. A number of preparatory and other documents relating to the period before and after the adoption of the Interconnection Directive and the 1997 Regulations have been cited to us in argument and are referred to later in this judgment.

"Leased lines" and events leading to the PPC Directions

38. From 1999 onwards the Director issued a number of consultative documents dealing with "leased lines": see *National leased lines in the UK : Summary of Oftel's investigation*, July 1999; *National leased lines : A further statement issued by the Director General of Telecommunications*, November 1999; *National leased lines : Effective competition review and policy options*, August 2000; and *Statement and draft direction issued by the Director General of Telecommunications*, December 2000. Those consultative documents were essentially concerned with the situation in which a telecommunications operator wishes to supply a private circuit to an end user who has a number of different premises, for example to enable different branches of a bank to communicate directly with each other, or to connect different retail stores to a central stock control system. Such private circuits are generally supplied as "leased lines". In the above documents a "leased line" is defined as "A permanently connected communications link between two premises dedicated to the customer's exclusive use. Also known as a private circuit".

39. The problem addressed by the Director in the above documents was that it may frequently occur that the network of the operator wishing to supply a private circuit to an end user does not cover or reach all the different premises of that end user, particularly as regards that part of the network that is variously referred to as "the last mile", "the local end" or the "terminating segment". In those circumstances, the operator wishing to supply the private circuit to the end user may be able to complete that circuit only by leasing a "partial private circuit" or "PPC" from the operator who is already connected to the customer's premises. That operator will typically be BT, because of the latter's ubiquitous coverage. Using the PPC to fill the gap between the end user's premises and its own network, the operator will then be in a position to offer his customer a complete private circuit linking all the customer's premises. The general thrust of the above documents, published by the Director in 1999 and 2000, was that the terms upon which BT made PPCs available to other network operators for supply to third parties were not sufficiently subject to competitive forces.

40. Meanwhile, in 1999 the EC Commission issued a proposed *Recommendation on Leased Lines Interconnection Pricing in a Liberalised Telecommunications Market*, together with an *Explanatory Memorandum*, 24 November 1999. In those documents the EC Commission took the view (e.g. at paragraph 6 of the *Explanatory Memorandum*) that the Interconnection Directive:

> "imposes on a fixed operator notified as having significant market power the obligation to provide cost-orientated leased line interconnection services to other operators for the purposes of providing end-to-end leased line services in the context of a liberalised environment and internal market principles (Annex 1 Part 2 of Directive 97/33/EC). These services should be provided under transparent, non-discriminatory and cost-orientated conditions, and subject to regulatory approval (Articles 6 and 7 of Directive 97/33/EC)."

41. The Commission further proposed to make a recommendation as to the pricing of what it described as "leased lines part circuits" in these terms:

> "In the context of the competitive provision of end-to-end leased lines in a liberalised environment, this Recommendation provides guidance on the pricing of leased lines part circuits to be provided by an incumbent operator to another interconnected operator in accordance with the requirements of the Interconnection Directive 97/33/EC (hereinafter referred to as the Recommendation). These leased line interconnection services are provided by one operator to another *operator* to give access to a customer's premises, and that constitute one segment of a end-to-end

> leased line between customer premises. This will allow new entrants to provide competitive end-to-end leased line offerings in particular serving small and medium enterprises."
>
> (Paragraph 9 of the *Explanatory Memorandum)*
>
> [emphasis in the original]

42. By a series of Directions dated 29 March 2001, 14 June 2002 and 23 December 2002, made in response to requests from other Operators (mainly cable companies and not mobile telephone operators) under the 1997 Regulations, the Director required BT, pursuant to the relevant Licence conditions, to enter into agreements for the interconnection with the Operator's Applicable Systems of defined "PPC interconnection products". The products in question were defined as "The provision of transparent transmission capacity by means of a PPC, by BT, … between a customer's premises and a Point of Connection with an operator's Applicable System connected to the nearest appropriate BT Synchronous Digital Hierarchy (SDH) tier 1 Node" (see e.g. Annex I to the Direction of 29 March 2001).

43. Pursuant to those Directions (the first of which set a framework for negotiations and the latter two of which settled various disputed points between the parties) BT is obliged to offer PPCs to the Operators in question (and by virtue of its non discrimination obligations, to other operators in an equivalent position), between a "customer's premises" and a relevant point of connection with the BT network, on cost orientated, wholesale terms. The Directions of 14 June 2002 and 23 December 2002 define a PPC as:

> "PPC – a generic term used to describe a category of private circuits that terminate at a point of connection between two operators' networks. It is therefore the provision of transparent transmission capacity between a customer's premises and a point of connection between the two operators' networks. It may also be termed a part leased line. It includes terminating segments."

44. BT's obligations under the PPC Directions are implemented by the terms of BT's Standard PPC Handover Agreement adopted in conformity with the Directions.

The 2002 Directives

45. Meanwhile, again at the level of the European Community, a review of the workings of the Interconnection Directive had been carried out, which resulted in a document entitled *A*

review of the Interconnection Directive, known as the Ovum Report, which was submitted to the EC Commission in October 1999. One of the proposals in the Ovum Report was that the Interconnection Directive should be replaced by a Directive having a broader scope, providing a single harmonised framework covering "all interconnect services, whether network interconnect services, access services, or access facilities" (p.5 of the Ovum Report).

46. Those proposals, among others, were carried forward and resulted in March 2002 in the adoption of a new package of Directives ("The 2002 package") which Member States were required to implement by 25 July 2003.

47. For present purposes the most important Directives comprised in the 2002 package are:-

- Directive 2002/12/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) OJ 2002 L108/33 ("the new Framework Directive"); and

- Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications and associated facilities (Access Directive) OJ 2002 L108/7 ("the Access Directive")

48. In broad terms the main relevant effects of the 2002 package are:-

(i) to abolish systems of individual licensing of telecommunications operators in the Member States and to replace those systems with a system of general authorisation, coupled with powers to impose specific conditions on operators found to have Significant Market Power, equivalent to dominance, following a detailed market analysis carried out by national regulatory authorities pursuant to Articles 14 to 16 of the new Framework Directive;

(ii) to enable national regulatory authorities to impose on operators found to have Significant Market Power in accordance with Article 16 of the new Framework Directive specific obligations in relation to access and interconnection, notably in

respect of "access to, and use of, specific network facilities": see the Access Directive, notably Article 12.

(iii) To repeal the 1997 package of Directives, including the Interconnection Directive, with effect from 25 July 2003, subject to the maintenance in force of obligations imposed pursuant to those repealed Directives pending the completion of the market analysis required to establish Significant Market Power in accordance with Article 16 of the 2002 Framework Directive: see Articles 26 and 27 of the new Framework Directive and Article 7 of the 2002 Directive.

49. The power to compel operators found to have Significant Market Power in accordance with Article 16 of the new Framework Directive to meet reasonable requests for "access", notably in accordance with Article 12 of the Access Directive, appears to be framed in wider terms than the power to require operators found to have Significant Market Power under the more restricted definition of that concept in Article 4 (3) of the Interconnection Directive to meet requests for "interconnection" within the meaning of Article 2 of that Directive. Thus Article 12 of the Access Directive provides:

"Article 12

Obligations of access to, and use of, specific network facilities

1. A national regulatory authority may, in accordance with the provisions of Article 8, impose obligations on operators to meet reasonable requests for access to, and use of, specific network elements and associated facilities, *inter alia* in situations where the national regulatory authority considers that denial of access or unreasonable terms and conditions having a similar effect would hinder the emergence of a sustainable competitive market at the retail level, or would not be in the end-user's interest.

Operators may be required *inter alia*:

(a) to give third parties access to specified network elements and/or facilities, including unbundled access to the local loop;

(b) to negotiate in good faith with undertakings requesting access;

(c) not to withdraw access to facilities already granted;

(d) to provide specified services on a wholesale basis for resale by third parties;

(e) to grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services;

(f) to provide co-location or other forms of facility sharing, including duct, building or mast sharing;

(g) to provide specified services needed to ensure interoperability of end-to-end services to users, including facilities for intelligent network services or roaming on mobile networks;

(h) to provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services;

(i) to interconnect networks or network facilities

National regulatory authorities may attach to those obligations conditions covering fairness, reasonableness and timeliness."

50. The 2002 package was implemented in the United Kingdom by the Communications Act 2003 ("the 2003 Act"), which came into force on 25 July 2003, pursuant to the Communications Act 2003 (Commencement no. 1) Order 2003 S.I. 2003 No. 1900. By virtue of that Order, and the combined effect of section 406(7) of, and Schedule 19 to, the 2003 Act, the 1997 Regulations, under which the contested Direction was made on 23 June 2003, were revoked with effect from 25 July 2003, subject to the transitional provisions set out in Schedule 18 to that Act: see below.

51. Similarly, as from that date, BT's Licence under section 7 of the 1984 Act, together with the individual licences of other telecommunications operators, lapsed, subject to transitional provisions, as a result of the repeal of the relevant sections of that Act.

III THE DIRECTION

The dispute leading to the contested Direction

52. It is common ground that the BT products used to furnish RBS backhaul circuits (such as Netstream Longline 16) are physically identical to the products used to furnish PPCs in accordance with the PPC Directions.

53. During 2002 Vodafone requested BT to supply it with "PPCs", in accordance with the terms of BT's Standard PPC Handover Agreement adopted pursuant to the PPC Directions, for the purpose of connecting Vodafone's RBSs and Vodafone's system of MTXs. BT pointed out that it was not obliged to do so in accordance with the PPC Directions, since those Directions only applied for the purpose of linking *customer premises* (described in BT's Standard PPC Handover Agreement as "a Third Party Building") with BT's network, and did not apply where the purpose of the PPC was to create a link not with a customer's premises, but between two points of Vodafone's network, namely Vodafone's RBS and Vodafone's MTX.

54. On 25 July 2002 Vodafone brought to the attention of the Director a dispute between Vodafone and BT, and asked the Director to determine that Vodafone could order "such PPCs" on the terms of BT's Standard PPC Handover Agreement for the purpose of connecting Vodafone's RBSs with Vodafone's MTXs.

55. It was apparently common ground between BT and the Director that the PPC Directions did not apply because those Directions refer only to PPCs which connect a customer's (i.e. end user's) premises with the relevant Operator's network.

56. However, the Director undertook an administrative procedure in order to investigate whether obligations equivalent to those in the PPC Directions should be imposed on BT when the relevant product was used as an RBS backhaul circuit between Vodafone's RBS and Vodafone's MTX, apparently on the basis that there was "a dispute concerning interconnection" under Regulation 6(6) of the 1997 Regulations. In the course of that investigation BT argued, among other things, that the supply of RBS backhaul circuits did not involve "interconnection" within the meaning of the Interconnection Directive and the 1997 Regulations. Hence, according to BT, the dispute between BT and Vodafone was not a "dispute concerning interconnection" within the meaning of Regulation 6(6) of the 1997 Regulations and the Interconnection Directive, and the Director had no power to intervene.

57. During the investigation the following exchange of e-mails took place between Mr Jim Niblett on behalf of the Director and Mr Tim Parsons on behalf of BT:

13 November 2002 (Niblett to Parsons)

"Tim

Many thanks for replying helpfully within our deadline.

I am not enthusiastic about a discussion of whether or not this is interconnection. Obviously, we have taken the view that it is or we would not have got this far. However, we will review our analysis in the light of the points you make. If there is no interconnection, this is no interconnection dispute.

However, looking ahead, artificial restrictions as to purpose, such as the ones you mention, do not form part of the regime to be implemented as from next July. And we have absolutely no intention of, even more artificially, reintroducing them.

Under the new regime, it therefore follows that where

(a) BT is found to have SMP in a relevant market and
(b) it is considered appropriate to impose a supply obligation as a consequence

then, without of course fettering the Director General's discretion, we do not expect to permit restrictions on supply according to whether the downstream application is "approved" or "not approved". I believe that you will find that this is a clear message in our recently published Access Guidelines.

I hope you will agree that we have better things to do than to engage in a discussion which will rapidly become of geological interest only. I know this point has been made fairly strongly to Anne previously – perhaps she could disseminate it again as necessary around BT.

Regards
Jim"

20 November 2002 (Parsons to Niblett)

"Thanks Jim

I understand your lack of enthusiasm for a discussion on whether or not this dispute relates to interconnection.

However, given BT's clear view that this matter does not constitute interconnection under the applicable legislation, it would be very helpful in seeking a resolution to the problem if you could provide some explanation as to why Oftel has come to the view that it is an interconnection dispute.

> Steve and I are in the process of arranging a meeting within the next week or so to discuss the products supplied to Vodafone.
>
> If you are able to provide further clarification on Oftel's rationale I'm sure it would help to ensure that maximum benefit is gained from this meeting.
>
> Regards
> Tim"

58. The "new regime" to be introduced from July 2003 referred to in Mr Niblett's e-mail of 13 November 2002 is that introduced by the 2002 Directives as now implemented by the 2003 Act: see further below:

The Direction

59. Following further exchanges between the parties, on 23 June 2003 (one month before the legislative changes referred to above at paragraph 50) the Director, acting pursuant to regulation 6(6) of the 1997 Regulations, made the contested "Direction to resolve a dispute between BT and Vodafone regarding wholesale connections between BT's and Vodafone's networks (radio base station backhaul circuits)".

60. The material part of the Direction is in these terms:

> "1. Except as otherwise defined in this Direction, words or expressions used shall have the same meaning as in the Act, BT's Licence or BT's Standard Interconnection Agreement, as appropriate.
>
> 2. BT shall offer to provide to the Operator [i.e. Vodafone], within a reasonable period of the Operator's written request, transparent transmission capacity with a bandwidth capacity up to and including two megabits per second between a radio base station and a Point of Connection with the Operator's Applicable System connected to the nearest appropriate digital cross connection node.
>
> 3. BT shall provide to the Operator the products set out in paragraph 2 of this Direction at cost-orientated prices and on non-discriminatory terms.
>
> 4. BT shall provide to the Operator the products set out in paragraph 2 of this Direction on terms and conditions which, where appropriate, are comparable to the provisions relating to service level agreements, forecasting penalties and migration set out in the Director's two PPC Directions published on 14 June 2002 and 23 December 2002.

5. This Direction shall form part of the interconnection agreement between BT and the Operator.

6. This Direction shall take effect on the day it is published."

The Direction is accompanied by a two page summary and a statement of reasons running to some 22 pages.

The summary

61. The text of the statement of reasons is preceded by a summary of the Director's reasons for making the Direction. That summary, so far as relevant, is in the following terms:

"This explanatory document accompanies the Direction published by the Director on 24 June 2003 concerning the dispute between BT and Vodafone regarding the provision of Partial Private Circuits[1].

[1] A PPC is a generic concept that describes a category of private circuits that terminate at a point of interconnection between two operators' networks.

…

S.3 … The Direction issued by the Director with this document requires BT to supply RBS backhaul circuits on wholesale terms to Vodafone, where requested. The product will be a wholesale, functional equivalent of the current retail product that Vodafone purchases.

S.4 the direction mandates that BT provides this product to Vodafone at

- cost orientated prices and
- on non-discriminatory terms.

This is in line with BT's current regulatory requirements, under Conditions 57 and 69 of its licence.

S.5 The Direction also states that, where appropriate, BT should provide Vodafone with terms for items including;

- Service Level Agreements;
- Forecasting; and
- Migration

These terms should be comparable with those in Oftel's direction on Partial Private Circuits issued in June 2002 and December 2002.

S.6 This Direction applies to leased line services at the wholesale level, where BT has been designated as having Significant Market Power. The same conclusion has been made as part of the Director's Phase 1 and 2 directions regarding PPCs. The

Director's analysis for this dispute is also consistent with his analysis in the Leased Lines Market Review document of BT's market power in the markets for the provision of Symmetric Broadband Origination and wholesale trunk services, which included RBS backhaul circuits.

S.7 RBS backhaul circuits are wholesale inputs into the provision of retail services provided by mobile operators. The Director's intent through this Direction is to remedy failures in the relevant upstream, wholesale markets. The market failure at the wholesale level arises because BT has market power. This allows BT to quote a price for the wholesale inputs (RBS backhaul circuits) at a level exceeding the costs and to maintain it at a high level without facing sufficient competitive pressure. Since this wholesale product is an interconnection service, needed to provide retail mobile services, the Director is aware that these higher input costs are distorting the mobile operator's network provision decisions and that this leads to higher prices for the retail mobile telephony services. This is not an efficient outcome, and leads to welfare losses.

S.8 In considering his responsibilities under Regulation 6(8) of the Interconnection Regulations 1997, the Director believes there are a number of benefits from his proposed action. He notes that the provision of radio base station backhaul circuits is crucial to the operation of Vodafone's network. A cost reduction in this provision will therefore promote greater network efficiency, and thus facilitate innovation and investment for the provision of mobile communications (voice and data services). The Director believes the availability of input at lower costs will increase competitive pressure in the retail market and so ultimately benefit end users of mobile services in terms of price, and potentially in non-price factors such as quality.

S.9 In conclusion, the Director believes that the Direction is a fair balance between the parties' legitimate interests, as required by the Telecommunications (Interconnection) Regulations 1997."

The statement of reasons

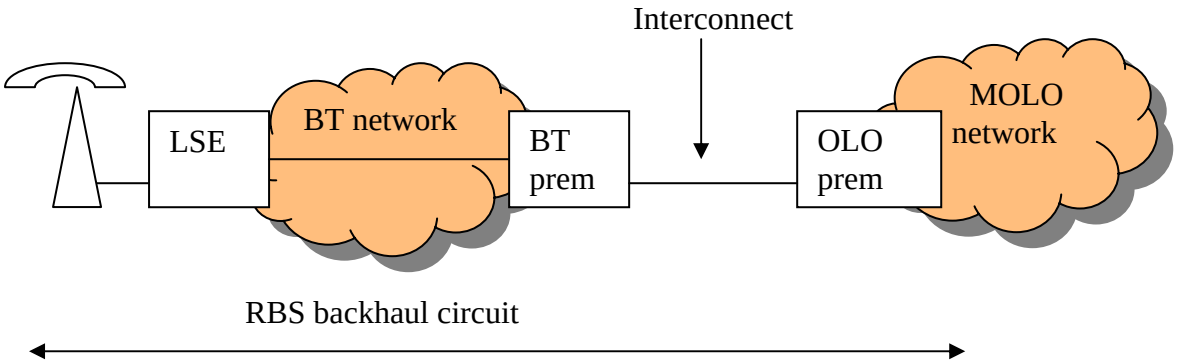
62. As regards the full text of the accompanying statement of reasons, it is only necessary at this stage to refer to those parts of the Director's reasons which bear on the issue of whether the provision of RBS backhaul circuits between BT and Vodafone is "a dispute concerning interconnection".

63. Paragraphs 2.2 to 2.5 of the Direction contain a physical description of RBS backhaul circuits which is in these terms:-

> "2.2 RBS circuits are wholesale inputs required for the provision of retail mobile telephony services. In this dispute, these circuits offer transparent transmission capacity by means of a permanently connected link between the mobile operator's premises and a point of

connection with an appropriate BT SDH node. These circuits might include some trunk component if the mobile operator requires RBS backhaul circuits that pass through trunk network to the mobile base station. See figure 1 below. The product outlined below is in fact technically equivalent to the product BT is currently providing Vodafone.

Figure 1: RBS backhaul circuits



2.3 RBS backhaul circuits can be delivered by means of different technologies; on copper, on fibre, or by means of radio. This market definition focuses on RBS backhaul circuits as a function, and includes all of the technologies by which they are delivered.

2.4 Although they can be currently purchased as leased lines or radio links, RBS backhaul circuits are also technically equivalent to a PPC. The radio base station can be viewed as equivalent to the end user's premises with traffic being carried to the appropriate point of interconnection on the mobile operator's ('MOLO's') network.

2.5 For the purpose of this Direction, the Director focuses on RBS backhaul circuits with bandwidth up to 2Mbit/s because these are the products than have been referred to him by Vodafone in the present dispute."

64. Chapter 3 of the statement of reasons is entitled "The Director's responses to issues raised during the consultation period" and is in the following relevant terms:

"**(i) Interconnection and related matters**

BT's comments

3.3 BT disagreed whether this dispute could be investigated by the Director as an interconnection service, and within the scope of the Directive and Regulations.

3.4 In its response BT claimed that the product which Vodafone is requesting (ie transparent transmission capacity at all bandwidths up to and including 2 Mbit/s between a radio base station and a Point of Connection with the Operator's Applicable System connected to the nearest appropriate digital cross connection node):

- does not fall within the definition of 'interconnection'; and
- is not a leased line.

3.5 In addition BT claim that the Director's analysis is not compatible with the new EU electronic communications regime.

The Director's views

Interconnection

3.6 Whether the Director has the power to resolve the dispute depends on whether the product in question falls with [sic] Article 9(5) of the Interconnection Directive (Directive 97/33/EC) as implemented by Regulation 6(6) of the Telecommunications (Interconnection) Regulations 1997. Article 9(5) applies where there is an interconnection dispute. "Interconnection" is defined as:

"the physical and logical linking of telecommunications networks used by the same or a different organisation in order to allow the users of one organisation to communicate with users of the same or another organisation, or to access services provided by another organisation. Services may be provided by the parties involved or other parties who have access to the network."

3.7 A telecommunications network is defined as: "transmission systems and, where applicable, switching equipment and other resources which permit the conveyance of signals between defined termination points by wire, by radio, by optical or by other electromagnetic means".

3.8 For a product to be considered interconnection two criteria must be fulfilled:
- there exist, at least, two telecommunications networks and
- those networks are physically and logically linked.

3.9 The product requested by Vodafone – and indeed the product BT is currently providing Vodafone – fulfils both these criteria, and therefore falls within Article 9(5) because:
- Vodafone's network is a transmission system as it conveys signals between defined termination points and the product requested by Vodafone also conveys signals between defined network termination points (i.e. a Vodafone radio base station and a Vodafone mobile switch); and
- Vodafone's network and BT's network (i.e. the product requested by Vodafone) are physically and logically linked at the Vodafone mobile switch.

Leased Lines

3.10 The Interconnection Directive defines leased line services as:

> "the telecommunications facilities which provide for transparent transmission capacity between network termination points, and which do not include on-demand switching (switching functions which the user can control as part of the leased line provision). They may include systems which allow flexible use of the leased line bandwidth, including certain routing and management capabilities."

3.11 The product which Vodafone is requesting – and indeed the product BT is currently providing Vodafone – falls within this definition because it is transparent transmission capacity between two network termination points, namely; the point of connection with BT's applicable system at the Vodafone mobile switch; and the Vodafone radio base station.

The new EU regime

3.12 This dispute is being considered in the context of the current regulatory regime, and therefore the governing regulation is that contained in the Interconnection Directive and implemented by the Telecommunications (Interconnection) Regulations 1997. The recently published leased lines market review document discusses the issue of how the provision of RBS backhaul links may be required in the new regime."

65. In Chapter 5 of the statement of reasons entitled "Conclusion and issues arising from this Direction" the Director stated in paragraph 5.8 that:

> "… He considers that the issue raised is a standard interconnection dispute, albeit in a novel area, and the procedures he has followed in resolving it are consistent with his past policy and practice."

The Continuation Notice

66. On 21 July 2003 the Director served a Continuation Notice providing that, with effect from 25 July 2003, the Direction should continue in force pursuant to the transitional provisions of paragraph 22 of Schedule 18 to the 2003 Act. The effect of paragraph 22 of Schedule 18 is that where the Director has given a Direction under regulation 6 of the 1997 Regulations prior to their revocation (which is the case here) the Director may give notice that such a direction is continued in force after 25 July 2003, provided that the Director considers that the Direction makes provision corresponding to that which he has power to include in conditions set under Chapter 1 of Part 2 of the 2003 Act, or in directions under section 190 of that Act.

67. Although not made explicit in the Continuation Notice, the Director's position apparently is that he would have power to include a provision corresponding to the Direction in setting

conditions under section 87 of the 2003 Act about "network access" as defined in section 151(3) of the 2003 Act. Those provisions are apparently intended to implement the Access Directive, which, as we have said, appears at first sight to be couched in wider terms than the now repealed Interconnection Directive under which the Direction was made (see paragraphs 45 to 49 above). However, in order to set a condition as to "network access" under section 87 of the 2003 Act, the Director first has to determine that BT has Significant Market Power following a market analysis in accordance with sections 78 to 86 of that Act, which are intended to implement Articles 14 to 16 of the new Framework Directive.

68. Pursuant to paragraph 22(9) of schedule 18 to the 2003 Act, where the Director has given a Continuation Notice of the kind in question here, he is under a duty to decide whether to set a condition under Chapter 1 of Part 2 of the 2003 Act as soon as reasonably practicable. It appears from review documents published on 11 April 2003 and 18 December 2003 that OFCOM proposes to impose on BT a condition as to network access under Article 14 of the Access Directive and section 87 of the 2003 Act relating to, among other things, RBS backhaul circuits, on the basis that BT has, in relevant respects, Significant Market Power for the purposes of section 78 of the Act (see paragraphs 70 and 71 below). By virtue of the Continuation Notice, the Direction continues to have effect pending the setting of any such condition under the 2003 Act.

69. BT, in its notice of appeal, challenges the Continuation Notice. However BT has argued no separate point about the Continuation Notice, which thus stands or falls with the Direction.

The reviews in the light of the 2003 Act

70. During 2003, in anticipation of the coming into force of the 2002 package of European Directives and the 2003 Act, the Director conducted a number of market reviews. On 11 April 2003 the Director published for consultation his "*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*". In that document the Director proposed, notably, to find that BT has Significant Market Power in the provision of RBS backhaul circuits for the purposes of the new regulatory regime under the 2003 Act, and to impose a "specific network access condition" on BT in that regard under the "network access" provisions of that Act.

71. OFCOM has since published a further document entitled "*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments. Identification and analysis of markets, determination of market power and setting of SMP conditions, Explanatory statement and Notification*". That document was published on 18 December 2003, after the hearing in this case. In that document OFCOM also finds that BT has in relevant respects Significant Market Power within the meaning of section 78 of the 2003 Act and Article 14 of the new Framework Directive (see chapter 3). OFCOM proposes to impose on BT a condition requiring BT to supply RBS backhaul circuits on terms equivalent to those imposed by the contested Direction. This OFCOM apparently proposes to do in reliance on Article 12 of the Access Directive and the provisions for network access set out in section 87 of the 2003 Act (see chapter 6). The Director invited final representations on these proposals to be made by 6 February 2004.

72. Since the Direction continues in force by virtue of the Continuation Notice, the Tribunal must determine the appeal on the basis of the law in force on 23 June 2003, the date when the Direction was made, namely the Interconnection Directive, the 1997 Regulations and the terms of BT's Licence, notwithstanding that those provisions were revoked or lapsed with effect from 25 July 2003 subject to the transitional arrangements outlined above.

IV THE PROCEEDINGS BEFORE THE TRIBUNAL

The course of the appeal

73. The appeal was lodged on 21 August 2003. It is common ground that an appeal lies to the Tribunal as if section 192 of the 2003 Act had been in force at the time the Direction was made: see paragraph 23(1) and 2 of Schedule 18 to the 2003 Act.

74. At the case management conference held on 12 September 2003 the Tribunal granted Vodafone and O2 permission to intervene in the proceedings.

75. On 10 November 2003 members of the Tribunal, accompanied by representatives of the parties, visited a Vodafone RBS site, a BT local exchange and a Vodafone MTX, all situated in the Basingstoke area. An agreed note of that meeting prepared by the parties has been included in the Tribunal's file.

76. Following the Tribunal's request, an agreed statement of facts relating to the technical aspects of the case was supplied to the Tribunal in the course of the hearing on 5 December 2003. The substance of that agreed note is reproduced in Section V below.

77. Following discussion with the parties regarding an application made by BT for interim relief under rule 61 of the Tribunal's Rules, the Tribunal made an order by consent on 5 December 2003. That order suspended both the Direction and the Continuation Notice, pending the determination of the appeal, upon BT giving an undertaking to the effect that, in the event of the appeal being unsuccessful, BT would backdate the application of any prices for RBS backhaul circuits required pursuant to the Direction to the end of a reasonable period following the written request of the first network operator to request such prices, and to refund any difference between the prices in fact paid since that date and the prices that should have been paid in accordance with the Direction, together with an agreed rate of interest.

78. Pursuant to the 2003 Act, the office of Director, together with his supporting organisation the Office of Telecommunications ("Oftel"), established under section 1 of the 1984 Act, is abolished, and the Director's functions transferred to OFCOM, which was itself set up under the Office of Communications Act 2002.

79. During a transitional period, the Director was empowered to carry out certain of OFCOM's functions, including those in relation to electronic communications networks and services: see section 408 of the 2003 Act. The transitional period ended on 29 December 2003 when OFCOM became fully operational: see The Office of Communications Act 2002 (Commencement No. 3) and Communications Act 2003 (Commencement No. 2) Order 2003 SI 2003 No. 3142. Under section 408(5) of the 2003 Act, and Article 3(2) of that Order, anything which was done by the Director prior to 29 December 2003 is to have effect after that time as if it had been done by OFCOM. Formally speaking, it seems to us, OFCOM now becomes the respondent in these proceedings. Since, however, the contested Direction was adopted , and this matter was argued, on behalf of the Director, we have continued to refer to the Director in this judgment.

The Tribunal's Powers

80. This appeal having been made to the Tribunal as if section 192 of the 2003 Act were in force at the relevant time (see paragraphs 23(1) and (2) of Schedule 18 of that Act) the Tribunal's powers are set out in section 195 of the 2003 Act, which provides so far as material as follows:-

> "(1) The Tribunal shall dispose of an appeal under section 192(2) in accordance with this section
>
> (2) The Tribunal shall decide the appeal on the merits and by reference to the grounds of appeal set out in the notice of appeal.
>
> (3) The Tribunal's decision must include a decision as to what (if any) is the appropriate action for the decision-maker to take in relation to the subject-matter of the decision under appeal.
>
> (4) The Tribunal shall then remit the decision under appeal to the decision-maker with such directions (if any) as the Tribunal considers appropriate for giving effect to its decision.
>
> (5) The Tribunal must not direct the decision-maker to take any action which he would not otherwise have power to take in relation to the decision under appeal.
>
> (6) It shall be the duty of the decision-maker to comply with every direction given under subsection (4).
>
> …
>
> (9) In this section "the decision-maker" means –
>
> (a) OFCOM or the Secretary of State, according to who took the decision appealed against; …"

81. In an appeal brought under the transitional provisions of Schedule 18 to the 2003 Act the Tribunal, in determining what is the appropriate action for the maker of the decision to take, must determine that question according to the law in force at the time when the decision was made: see paragraph 23(7) of Schedule 18.

V THE AGREED STATEMENT OF FACTS

82. We include in this judgment, with minor linguistic adjustments, the essence of the statement of facts.

The RBS

83. The RBS site contains an aerial (usually fixed to a mast) which enables signals to be sent to and from a customer's mobile phone. A mobile operator's network will typically have around 10,000 RBSs. The region over which a RBS provides coverage and is capable of sending/receiving signals to/from the mobile phone is called a "cell" and the RBS is sometimes referred to as a "cell site". An individual cell site may be used by more than one mobile operator.

The MTX

84. The MTX is Vodafone's switching equipment. It is commonly referred to as a "switch" and the site where the MTX is located is called a "switch site". A mobile operator's network will typically consist of around 25-30 switch sites. The MTXs are linked together by circuits. Inter-MTX links will either be self- provided or leased from BT or other suppliers.

RBS Backhaul

85. Each RBS is linked to its controlling Base Station Controller (see below) which is often but not always housed in the nearest MTX. The function of RBS backhaul is to provide this link. Mobile operators may buy in RBS backhaul services from external suppliers, and some, such as Vodafone, obtain them most frequently from BT. Some mobile operators self provide their RBS backhaul by building the necessary infrastructure themselves, normally by radio links (see also below).

The Base Station Controller

86. The functions of the RBS relevant to the present case are controlled by the Base Station Controller (BSC) which is a piece of equipment belonging to the mobile operator.

87. The RBS can, on its own, effect certain communications with mobile handsets within its coverage area, but it cannot, without communicating with the BSC, enable mobile handsets

to make or receive calls. The BSC can be situated at the MTX site, as is commonly the case for Vodafone. The BSC is in constant communication with the RBS and sends and receives signals by means of the RBS backhaul link. The BSC exercises its control over the RBS in the same way regardless of whether the backhaul link is provided by cable or by radio. One BSC will usually control approximately 140 RBSs.

Methods of accomplishing RBS backhaul

88. An RBS backhaul "circuit" provided by BT to Vodafone is a service provided by BT involving the conveyance of data from the RBS to the relevant BSC, normally located at the MTX. RBS backhaul can be accomplished by (a) a Microwave radio link, which requires there to be an unbroken "line of sight" between the RBS and the MTX; (b) by cable; or (c) a combination of the two. Although the description below of how an RBS backhaul circuit functions refers to a cable link, rather than a microwave link, the expression "RBS backhaul circuit" covers both types of link.

89. The proportion of microwave links to cable links which a mobile operator uses (if any) in order to accomplish RBS backhaul is a question of policy (which is directly related to the configuration of an operator's network), costs (in particular the cost to a long established user of cable links of switching to microwave is significant) and technical capability. One major UK mobile operator has chosen to use almost exclusively microwave links, and has configured its network accordingly. For example, it has positioned many of its BSCs remotely. By contrast, the vast majority of O2's RBS backhaul is provided by BT, not least because of the configuration of its network.

90. If a mobile operator wishes to use cable links, then it will often be cheaper to procure an RBS backhaul circuit from an established network operator such as BT, than to install its own links. This is because an operator with an existing network in the vicinity of the RBS will not need to lay an entirely new link, along a new route, but will be able, for at least part of the link, to use capacity available on existing links and/or to lay new equipment in existing ducts.

The technology employed by the RBS backhaul circuit

91. There are several methods of transporting data from point A to point B. The original method of simply laying a cable between A and B has been superseded by new technology. The method employed by BT in circuits such as RBS backhaul circuits is called "Time Division Multiplexing" ("TDM"). Each link has a fixed number of timeslots available to convey information. The number of timeslots determines the capacity of the link. Conveyance of data is achieved by connecting timeslots together across successive links from one end to the other. In the case of RBS backhaul this technology is used to create a "transparent" transmission facility. It is "transparent" in the sense that the bit stream transmitted is received at point B just as sent from point A without any manipulation of the data or use of the signals for switching.

92. When BT initiates an RBS backhaul service to be provided to Vodafone, it identifies a route between the RBS and the relevant MTX and allocates to Vodafone specified capacity in the form of certain timeslots on that route. BT contends that it is wholly appropriate to describe these timeslots as dedicated to Vodafone. The choice of route and the timeslots allocated to Vodafone are at BT's absolute discretion and BT remains contractually entitled to alter both the route and the timeslots allocated. The timeslots allocated to Vodafone are for Vodafone's sole and exclusive use, regardless of whether and to what extend Vodafone utilises the slot. BT does not know to what use, if any, the allocated timeslots are put. Vodafone may use the timeslots to carry calls, data or paging signals or may merely have them reserved for resilience purposes. The Vodafone signals handed over to BT at the point of handover with the RBS must conform to specified protocols, derived from standards adopted by the International Telecommunications Union.

93. Once established, the link between the timeslots in each segment of the end to end circuit cannot be altered without breaking the connection. The route taken can be altered in certain circumstances, for example where there are major faults on the line or there is a major breakdown. To identify any breakdowns and initiate a break of service alarm, BT monitors the BT element of the path constantly by a "path overhead" signal which BT adds. Other time slots on a particular part of the end to end link may be carrying interconnect traffic or

traffic originating on BT's own network. However, the traffic carried in each of the timeslots remains separate.

The path of a typical call across the RBS backhaul circuit

94. When a call is made from a mobile phone, the signal is picked up by the mobile operator's RBS. A typical RBS may be able to handle up to 60 calls at a time. At the RBS, radio equipment merges all the incoming signals together. The merged signal is then passed to BT equipment located at the RBS and connected to Vodafone's equipment to begin its transmission along the RBS backhaul circuit to the BSC located at Vodafone's MTX site.

95. In the first stage of the backhaul service, BT converts the signals to optical or electrical impulses and then transmits them from Vodafone's RBS to BT's local serving exchange ("LSE") using equipment belonging to and managed by BT, including a transmitter located at the RBS. The equipment at this first stage will be dedicated to transmitting and conveying signals for Vodafone. Even where other mobile operators share the cell site they will have separate equipment and fibre regardless of whether their RBS backhaul is provided by BT.

96. At the LSE, the optical or electrical impulses are reconverted to electrical signals and pass from equipment dedicated to Vodafone to other BT equipment that is also used for the transmission and conveyance of signals from other sources (which may include BT's own voice telephony customers). From the LSE onwards, there is no part of the equipment in question that is dedicated to the conveyance of signals for Vodafone unless the RBS and the MTX are served by the same LSE. However, in all cases the time slot[1] allocated to the backhaul service in question remains dedicated to Vodafone.

97. From the LSE serving the RBS in question, BT once again converts the signals to optical form and transmits them over a fibre link to the LSE serving the MTX which is the "host" to that RBS. The route determined by BT will not necessarily be the shortest route between the RBS and MTX. It may involve several different transmission systems and BT exchanges, at each of which the physical signal is received and de-multiplexed to recover the Vodafone signal which is transported to the cross connected time slots on the outgoing transmission

[1] There are a limited number of time slots on each link. As such BT considers that the phrase "time slot" is interchangeable with capacity

system. Thus, for example, in the case of the RBS at Heather Row near Basingstoke which the Tribunal visited, the signals pass via Southampton on their way to the Basingstoke MTX. On their final stage the signals pass from the LSE serving the host MTX to a point of handover within that MTX. In some cases, this final stage of transmission is effected across BT equipment situated within the MTX that is dedicated to this purpose. In other cases, the traffic from the RBS is routed across BT equipment that is also used to deliver other traffic to the Vodafone switch site (e.g. calls originated by BT customers, or customers of other interconnected operators, and destined for delivery to Vodafone subscribers).

98. The RBS backhaul circuit ends at the MTX site on the add-drop multiplexor which is part of BT's equipment. A fibre cable belonging to Vodafone then leads from the multiplexor to Vodafone's transmission equipment. At the Basingstoke MTX this was SMA4. The Vodafone transmission equipment breaks the aggregated circuits down into individual 2 megabit circuits which then connect to their respective BSCs. The BSC is connected by a further cable belonging to Vodafone to the MTX. The MTX then routes the call to its appropriate destination.

Switched Vodafone to Vodafone voice call

99. If one Vodafone subscriber is calling another Vodafone customer, the MTX will "consult" the home location register to identify the area in which the called handset is for the time being located. The MTX will then route the call across Vodafone's layer of interlinked MTXs to the MTX that is linked to the cell in which that Vodafone handset is located. The call will then pass from that MTX back through a BSC and over a RBS backhaul link to the RBS, which will transfer the signal to the recipient of the call.

Call to a customer on another network

100. In a simple case, if the Vodafone subscriber is calling a customer on another network ("Network B"), the MTX will route the call to an established point of interconnection with Network B. Vodafone will pass certain information to Network B, such as the dialled digits, and request that Network B terminate the call. Network B will determine whether it has sufficient available resource on its network to route the call and will then switch the call through its own network to the recipient customer. In some cases, the information as to what

are the dialled digits (to which the call must be delivered) and the signals comprising the call itself are conveyed via different routes to the interconnected network. For example, where Vodafone subscribers make international calls from the UK, the routing information is conveyed via BT's network but the calls themselves are conveyed via Cable & Wireless. When the caller hangs up at the end of the call, a signal to that effect is conveyed to the terminating network, and communicated to the originating network. Each network operator then knows that the resources employed by Network B to route the call will then be free to route another call.

Call from a Vodafone customer to a BT customer

101. If a Vodafone customer in Basingstoke makes a call to a BT customer in Basingstoke, the call will pass from a Basingstoke RBS onto the RBS backhaul circuit serving that particular RBS and through the BT LSEs concerned. However, the call cannot pass from the BT LSE straight to its point of termination at the BT customer in question. Since the RBS backhaul service does not involve on-demand switching, the call must pass through the RBS backhaul link to the Vodafone MTX. When the call passes through the RBS backhaul circuit, BT does not know the nature of the call, nor that it is destined to terminate at a BT customer. On reaching Vodafone's MTX, the call will be switched to an established point of interconnection with the BT network and be presented there as a call intended for a BT customer in Basingstoke. The call is then routed through the BT network to its destination, potentially along part of the same cable as that which contains the RBS backhaul traffic. The capacity on the cable allocated to the Vodafone RBS backhaul traffic is completely separate from the capacity allocated to other traffic on BT's network, including other interconnection traffic from Vodafone, albeit that the capacity passes along some of the same physical equipment.

PPCs

102. When BT provides a PPC to another operator to enable the latter to offer a complete leased line service to an end user customer, the technical aspects of the service provided are the same as with RBS backhaul, albeit that the circuit in question runs from the end user premises to a point of handover with the other operator's network for onward transmission, rather than between an RBS and an MTX. As with RBS backhaul, the PPC service does not

involve on-demand switching, and BT is unaware of the use, if any, to which the allocated capacity is put.

VI THE ARGUMENTS OF THE PARTIES

103. The Tribunal has had the benefit of ably presented and detailed arguments. The parties' submissions have focussed primarily on the general context and purpose of the Interconnection Directive and also on three specific questions, namely

(i) Are there two or more "telecommunications networks" within the meaning of Article 2(1)(c) of the Interconnection Directive, comprising "transmission systems and, where applicable, switching equipment or other resources which permit the conveyance of signals, between defined termination points"?

(ii) Are there two telecommunications networks which are "physically and logically linked" within the meaning of Article 2(1)(a) of the Interconnection Directive?

(iii) Is the physical and logical linking of the telecommunications networks in question "in order to allow the users of one organisation to communicate with users of the same or another organisation, or to access services provided by another organisation", within the meaning of Article 2(1)(a) and (e) of the Interconnection Directive?

104. In addition, there has been considerable argument on the question whether the provision of an RBS backhaul circuit is the same as, or analogous to, the provision of a partial leased line, and if so what conclusions should be drawn.

105. The parties' main submissions are briefly summarised below.

BT's arguments

- *The general context*

106. BT contends that the "paradigm instance" of interconnection as understood in the industry is a service that enables users of network A to communicate with users of network B, or enables users of either network to access services provided by the other network. In other words, the purpose of interconnection is to allow "interoperability" or "any to any" communication, whereby customers of one operator can call customers or access services provided by another operator. Interconnection as thus commonly understood involves a mutually beneficial arrangement between network operators which allows both to send traffic across the interconnection link for termination on the other network. Consequently, BT submits, interconnection is concerned with the linkage of distinct networks rather than components which, when linked together, enable an operator such as Vodafone to complete its own network. BT contends that this view is supported by, for example, Oftel's statement on *Promoting competition in services over Telecommunications Networks,* 1997, at paragraph 4.1; Oftel's statement on *Interconnection and Interoperability,* of April 1997; and the Department of Trade and Industry's *Implementation of the 1997 Interconnection Directive Consultation Paper,* at paragraph 19.

107. In this case, contends BT, an RBS backhaul circuit is not provided for the purpose of linking two networks, but simply for the purpose of linking two parts of one network, namely Vodafone's, by providing a link between Vodafone's RBS and Vodafone's MTX. According to BT, an RBS backhaul circuit is merely one component of a mobile operator's network which an operator such as Vodafone may decide to provide itself, or source from another supplier such as BT, as described in the Director's statement of reasons.

108. BT submits that the "touchstone" of interconnection is to allow one operator to provide access to the customers of another operator. In the case of RBS backhaul, the link provided by BT does not permit Vodafone to access any customers subscribing to BT's network. Access by Vodafone to BT's subscribers and those of other network operators takes place at quite different points which are known as "established points of interconnection". This is clearly explained at page 6 of Volume II of the Competition Commission's *Report on references under section 13 of the Telecommunications Act 1984 on the charges made by Vodafone, O2, Orange and T-Mobile for terminating calls from fixed and mobile networks,* December 2002. According to BT, it is clear that

"interconnection" can only take place at the MTX switch, at which point the call is routed to its destination.

109. According to BT the Director accepts that backhaul circuits are crucial to the operation of Vodafone's network (see paragraph S.8 of the Direction) and that the links are an "essential component of Vodafone's network" (e.g. paragraph 4.5 of the Direction). Vodafone's network does not interconnect with BT's network properly understood: Vodafone merely leases part of BT's network in order to complete its own network.

110. BT points out that it also sells circuits to Vodafone to connect its MTXs but it has not previously been contended that those links amount to "interconnection". If those circuits did amount to interconnection, the inference is that BT would be required to build Vodafone's network for it at cost orientated prices.

111. BT submits that the best explanation of the meaning and purpose of interconnection as generally understood is Oftel's own statement of April 1999 on *"Rights and Obligations to interconnect under the EC Interconnection Directive"*, at Paragraphs 1.2, 1.3, 1.14 and 1.18. That the policy and purpose behind interconnection is to permit different operators' customers to communicate with each other is also made clear in Oftel's statement of April 1998 on *Interconnection and interoperability of services over telephony networks.*

- *"Two telecommunications networks"*

112. As to whether there are two "telecommunications networks" within the meaning of Article 2(1) of the Interconnection Directive, BT submits that that condition is not fulfilled in this case. A backhaul circuit is not itself a "network" because it serves no useful function except as a component linking Vodafone's RBS to Vodafone's MTX. Without an RBS backhaul circuit there is no functioning network capable of interconnecting with other networks. Only when the RBS is linked to Vodafone's MTX by means of a backhaul circuit can it convey calls and consequently be said to constitute a transmission system. Until Vodafone has a functioning network, no question of interconnection arises, as is clear from the Directive.

113. Where Vodafone provides a backhaul link itself, there is clearly only one network involved, i.e. Vodafone's. The analysis does not alter whether the link is provided by Vodafone itself, by BT, or leased from some other source. According to BT the Director's argument that where a mobile operator self-provides such links there is no interconnection whereas when it obtains such links from BT there is interconnection is "bizarre".

114. According to BT, the Director appears to accept in his statement of reasons, notably at paragraphs 2.39, 2.44 to 2.48 and "most starkly" at 4.5 and 4.10, and in the accompanying press release, that RBS backhaul is merely a component in a network, rather than a network itself capable of interconnection with other networks. Furthermore the purpose of RBS backhaul is far removed from the purpose for which the rights and obligations to interconnect were conferred.

- *"Defined termination points"*

115. Moreover, submits BT, for the purposes of Article 2(1)(c) of the Interconnection Directive a telecommunications network involves " … transmission systems which permit the conveyance of signals *between defined termination points* …". BT submits that neither the RBS backhaul circuit nor Vodafone's layer of MTXs permit the conveyance of signals between "defined termination points". Hence, there are not two telecommunication networks, in the sense of the Interconnection Directive, contrary to the Director's finding at paragraph 3.9 of his statement of reasons.

116. In particular, a "defined termination point" in Article 2(1)(c) is to be understood as referring to a "network termination point" as referred to in Annex I of the Interconnection Directive. Annex I makes clear that a network termination point is the point at which a user is connected to the mobile operator's network. Users, who must be understood as end users, do not gain access to the network at the RBS or at the MTX, which are merely intermediate components of the network over which signals pass before continuing to the point(s) at which they are accessible to end users.

117. Article 2 of the ONP Framework Directive, as amended, defines a "network termination point" as "the physical point at which a user is provided with access to a public

telecommunications network". That Article further provides that "The locations of network termination points shall be defined by the national regulatory authority and shall represent a boundary, for regulatory purposes, of the telecommunications network." On this definition it cannot be said that Vodafone's MTXs or RBSs are networks capable of being interconnected to BT's network as the signals they convey do not reach a termination point on them.

118. According to BT, the Director's submission that network termination points can comprise not only end-user termination points, but also include points of interconnection between one network and another, is erroneous. As to Article 16 of the Voice Telephony Directive which refers to "network termination points other than the commonly provided network termination points referred to in Annex II, part 1," BT points out that both Recital 6 and Article 4(2) of the Interconnection Directive simply refer to access as "points" other than "the network termination points offered to end users". In addition, in those provisions, the term "network termination points" is used expressly in conjunction with the notion of "end user" which strongly implies that the points at which access to the network is granted to persons other than the end-user are not "network termination points".

119. BT accepts that in Annex A to BT's Licence, network termination points are defined as including points of interconnection. However, in the context of the Interconnection Directive, the function of the term "defined termination points" is to define the subject matter of rights and obligations to interconnect, namely the two functioning networks that are to be interconnected. BT submits that a network can only be understood to be functioning if it "serves a useful purpose because it can transmit signals to end users." For this reason the concepts of "defined termination points" and "network termination points" in the Interconnection Directive refer to end users only. This submission is supported by the terms of both Annex I, and Annex II, and the "Notes" to Annex II of the Interconnection Directive. As neither the Vodafone MTX layer nor the RBS backhaul circuit is capable of conveying signals between end user termination points, they do not constitute "telecommunications networks" in respect of which rights and obligations to interconnect could arise.

- *"Physical and logical linking"*

120. Moreover, according to BT, the RBS backhaul circuits it provides do not "physically and logically" link its network to Vodafone's network within the meaning of Article 2(1)(a) of the Interconnection Directive. BT contends that the "transparent, dedicated capacity allocated to Vodafone's sole and exclusive use is wholly separated from the body of BT's network and becomes part of Vodafone's network for the duration of the contract". The capacity allocated to Vodafone cannot be used by BT nor does it know or control the use to which that capacity is put by Vodafone. BT does not transmit signals: it merely provides capacity so that Vodafone can convey signals between its RBS and its MTX if it so chooses. Once set up, there is no interaction between the Vodafone and BT networks. The provision by BT of an RBS backhaul circuit is analogous in its effect to the transfer to Vodafone of a physical asset.

121. That position is to be contrasted with the situation where Vodafone wishes to purchase an interconnection service from BT in order that a Vodafone customer can communicate with a BT customer. In that situation, prior to the establishment of a voice call Vodafone must provide certain information to BT, such as the dialled digits, and request that BT convey the call to its destination. BT determines if there is free resource available on its network to route the call and then attempts to connect the customer with their intended destination. BT monitors the status of the call, and when it is finished informs Vodafone and sends termination information. Similar interaction is required in the case of a call originating on Vodafone's network which transits BT's network to terminate either on a third network or back onto Vodafone's network.

122. According to BT, the requirement that there be *logical linking* envisages not only the establishment of physical contact between components but also the establishment of mutual compatibility of signalling and protocols in order to facilitate two-way, mutual comprehension and interaction between the two networks. The sort of "mutual comprehension and interaction" required for interconnection, which is designed to permit the customer of one network operator to communicate with the customer of another operator, is of a different order to the sort of basic compatibility required for an RBS backhaul circuit to work.

123. According to BT, the "logical" linking of networks cannot be satisfied by "the insertion of a transparent pipe into a slot in Vodafone's network" which is what the provision of the RBS backhaul circuit entails. The fact that the link between Vodafone's MTX and the RBS provided by the RBS backhaul circuit requires certain protocols to be observed, involves use of time segmented multiplexing and what the Director describes as a "logical route" over BT's network, does not change the fact that an RBS backhaul circuit does not involve any of the logical linking that takes place when networks are interconnected.

- *"To allow users of one organisation to communicate with users of the same or another organisation"*

124. Furthermore, BT submits that the purpose of interconnection as defined in Article 2 (1) (a) of the Interconnection Directive is "to allow the users of one organisation to communicate with the users of the same or another organisation, or to access services provided by another organisation." However, the provision of an RBS backhaul circuit permits neither interoperability nor access to the services of another network. The provision of an RBS backhaul circuit must in this regard be distinguished from transit services, which enable a customer of one network to communicate with another network by virtue of two separate interconnection agreements with an intermediary network.

125. The Director is wrong in his submission that although one aim of the Interconnection Directive is "in particular the interoperability of services" it is by no means limited to that aim. That submission ignores the specific definition of interconnection in Article 2(1)(a), which states that its aim is "to allow the users of one organisation to communicate with the users of the same or another organisation, or to access services provided by another organisation." The "same" organisation refers e.g. to a situation where different networks are under a common ownership, or where networks run by the same organisation are in different geographical locations.

126. The Director is equally wrong to argue in the alternative that the purpose of RBS backhaul is to permit Vodafone users to talk to other Vodafone users. In one sense this is true of RBS backhaul but it is far too remote to be legitimately described as a purpose of RBS backhaul. The Director's submission is similar to saying that the purpose of a spark

plug in a car is to permit the vehicle to travel from A to B, but that is far too remote a purpose to ascribe to the spark plug for the purposes of defining its true aim or function.

- Leased lines

127. BT submits that the Director's reliance on the leased lines aspects of the Interconnection Directive is misplaced. First, the reference to "leased lines" in Annex I of the Interconnection Directive makes clear that the leased lines service is the provision of transparent transmission capacity between network termination points. BT's submission in relation to the meaning of network termination points applies equally to leased lines.

128. BT further submits that the organisations which are subject to the right and obligation to interconnect pursuant to Article 4(1) and Annex II of the Interconnection Directive are those "which provide switched and unswitched bearer capabilities to users upon which other telecommunications services depend." In particular, paragraph 2 of Annex II makes clear that leased lines are a service on which "organisations which provide leased lines to users' premises" depend to provide their end product, namely a "complete" leased line. Leased lines are therefore to be understood as partial circuits provided by one network operator in order to permit other network operators to offer a "complete" leased line to users' premises. This accords with the EC Commission's analysis in its *Recommendation on Leased Lines Interconnection Pricing in a Liberalised Telecommunications Market* (1999) on which the Director mistakenly relies. BT also relies on the EC Commission's *Working Document on Leased Line Interconnect Pricing*, 31 August 1999, which shows that the reference to "leased lines" in the Interconnection Directive is a specific reference to a partial circuit, which is a wholesale input into a final product offered to end users. An RBS backhaul circuit, by contrast, is an end product to be used by the network operator, not by an end user.

129. According to BT, the reason why the Director and the EC Commission have sought to regulate only the provision of the "part leased line product" is because the intention is to increase competition in the market for end to end leased lines, to increase access to

services for the end user by permitting new entrants to provide competitive end to end circuits in competition with the incumbent operator, and to address the "bottleneck" problem of local network access. In this regard BT relies on the witness statement of Mr Lamb of 3 November 2003, the EC Commission *Working Document on Leased Line Interconnect Pricing,* and the Commission *Recommendation on Leased Lines Interconnection Pricing in a Liberalised Telecommunications Market,* cited above.

130. According to BT, Recital 4 to the Interconnection Directive makes clear that there is a distinction between how you build your network and the existence of interconnection rights and obligations. Recital 4 plainly envisages that a network can be based on leased lines or transmission capacity not owned by the network operator. If the Director is correct then the leased part of any network would involve interconnection. Accordingly, BT submits, the purchase of an RBS backhaul circuit is merely the purchase of transmission capacity by Vodafone rather than a form of interconnection.

131. The Director's apparent contention at paragraph 3.9 of his statement of reasons, that a leased line providing an RBS backhaul circuit is itself a telecommunications network, is unsustainable and contrary to the terms of Recital 4 to the Interconnection Directive. According to BT, Recital 4 to the Interconnection Directive makes clear that while networks can be built up from multiple leased lines, leased lines do not themselves constitute a telecommunications network, but merely form one or more constitutive parts of the network. As in the case of other forms of RBS backhaul provision (e.g. microwave) a leased line cannot by itself convey calls, and only forms part of a transmission system when linked to the other elements needed to create the relevant mobile operator's network.

132. According to BT, it is not sufficient to bring RBS backhaul circuits within the definition of interconnection just because they are technically equivalent to PPCs, as the Director argues. Unlike PPCs, they do not convey messages between defined termination points, namely end-user termination points, and consequently are not capable of giving rise to interconnection. By contrast, PPCs may give rise to interconnection where they are used with the aim of enabling users to communicate with other users or to access services provided by other networks.

133. According to BT, PPCs fill a gap in the network of a leased line provider because the provision of a PPC is the only means by which competing providers of leased lines can gain access to the incumbent operator's subscribers and offer a competing leased line service. In "purposive terms" the characterisation of a PPC as "interconnection" is fully justified because it extends the market for leased line services to the subscribers of other operators. By contrast, BT submits that there are a number of alternative methods by which Vodafone can fill the 'gap' in its network, for example, it can purchase a link, self build an RBS backhaul link or use a microwave link. The link provided by the RBS backhaul circuit results neither in increased competition between service providers nor in greater access to customers for competing network operators.

134. According to BT, the Director is wrong to submit that the fact that leased lines are subject to rights and obligations to interconnect must be because the provision of a leased line constitutes the provision of a "telecommunications network" capable of being physically and logically linked with the telecommunications network of the organisation wishing to interconnect. BT submits that it is notable that a leased line is described as a "service" in Annex I, part 2, of the Interconnection Directive, in contrast to parts 1 and 3 of Annex I which refer to the networks and to the services to be conveyed over them. This, according to BT, is because a leased line in the sense of a PPC is a service to be facilitated by interconnection, and not a network that is itself subject to rights and obligations to interconnect.

135. Even if the RBS backhaul circuit was a leased line service within the meaning of the Directive, it is properly to be regarded as part of Vodafone's network not that of BT.

- *Transit services*

136. The Director's and Vodafone's argument that "transit services" comprise an example of interconnection that does not serve the purpose of securing interoperability between the end users of two interconnected networks mischaracterises the true nature of transit services. In reliance on Mr Butterworth's second witness statement, and the Competition Commission report referred to above, BT contends that Vodafone's example of physical and logical linking between network A and intermediate network B for the purposes of

onward transmission to network C is precisely an example of a linkage that is designed to facilitate communication between customers of two networks, A and C.

137. According to BT, "transit" is a form of indirect interconnection which arises from at least two bilateral interconnection agreements between operators A and B on the one hand and operators B and C on the other. Interconnection takes place between the switch layers of the relevant networks. As a result of those arrangements, operator A's network can be indirectly interconnected via network B with network C. This situation is wholly distinct from RBS backhaul which is a specific link provided by BT to Vodafone. It does not arise from the interconnection of networks.

138. BT also points out that when traffic transits the BT network it is treated as if it were BT's traffic, which is wholly different from the traffic which passes transparently through the RBS circuit from Vodafone's RBSs to its MTX. Only in the former case can it properly be said that the necessary degree of logical linking takes place. Moreover, transit, unlike RBS backhaul, results in any to any interoperability, which is entirely consistent with the aim of interconnection.

The Director's arguments

- *The general context*

139. The Director contends, first, that as a matter of general approach the Interconnection Directive should be interpreted flexibly in a way in a way which leaves a significant margin of appreciation to Member States to adapt their regulatory framework to the evolving economic features of their national telecommunications market: see the Opinion of Advocate General Jacobs in Case C-79/00 *Telefonica de Espana SA* [2001] ECR I-10075.

140. The Director accepts that the more usual context in which interconnection takes place is to enable the customer of network A to communicate with a customer of network B. However, that is by no means the only form which interconnection can take as is exemplified by transit services, whereby traffic is conveyed between networks A and B

via a third network, network C. It is common ground that such arrangements constitute interconnection between the networks involved.

141. The Director submits that an RBS backhaul circuit should not be treated simply as a component of Vodafone's network as BT suggests. Once the signal moves from the Vodafone network onto the BT network it is clearly going onto something which falls within the definition of a telecommunications network. In particular the Director submits that the process is similar to that involved in relation to the provision of PPCs which clearly constitute a form of interconnection. Such "transiting interconnection" is within what is regarded as interconnection.

142. As to BT's submission that the RBS circuit "creates" the Vodafone network, the Director submits that this is incorrect. Even if the BT provided circuit was removed, Vodafone would continue to have a functioning network albeit not as extensive in terms of its coverage as it would be if the BT provided circuits were in place. However, those customers who are connected to the Vodafone network via those particular RBSs would no longer be able to communicate with other Vodafone customers, the very thing that interconnection seeks to achieve. Page 21 of the EC Commission's *Eighth report on the Implementation of the Telecommunications Regulatory Package*, makes clear that leased lines are designed to permit new entrants to provide end to end services to their customers in cases where their own networks are not yet sufficiently extensive to enable them to provide these services by means of their own infrastructure. RBS backhaul circuits perform the same function.

143. The Director submits that there is no reason why the linking provided by an RBS backhaul circuit should be excluded from the meaning of interconnection in the Interconnection Directive. The aim of the Directive includes securing the interconnection of networks in an environment of open and competitive markets. The duties imposed by Article 9 of the Interconnection Directive are designed to benefit all users, including operators such as Vodafone. Providing transiting interconnection of the type involved in the provision of RBS backhaul, or the sort that arises with PPCs, is a way of furthering those objectives, enabling operators to fill gaps in their infrastructure in the way that they regard as most cost effective. Although the wording of the Directive is clear enough to

justify this conclusion any doubts should be resolved by granting the national regulatory authority, in this case the Director, a margin of appreciation.

- *Two telecommunications networks*

144. The Director submits that the present dispute concerns interconnection between two telecommunications networks within the meaning of Article 2(1) of the Directive. The telecommunications networks which are physically and logically linked comprise Vodafone's network on the one hand and, on the other, "the transmission systems and other resources used by BT for the conveyance of signals between Vodafone's RBS and Vodafone's MTX."

145. The Director submits that there is no doubt that Vodafone's network of MTXs connected to BT's RBS backhaul circuit constitutes a "telecommunications network" within the meaning of Article 2(1) of the Interconnection Directive. In particular Vodafone's MTXs comprise transmission systems, switching equipment and other resources which permit the conveyance of signals between defined termination points; the termination points in question include the interface with every 'switched-on' mobile telephone, the interconnection points between Vodafone's network and other networks, and various other points where messages originate and terminate, such as voice mailboxes.

146. That being the case, the only remaining question, according to the Director, is whether the equipment to which Vodafone's network of MTXs is physically and logically connected is itself a network. The Director argues that this is plainly so: in providing the service comprising RBS backhaul, BT conveys signals between defined termination points, namely between Vodafone's MTX at one end and the RBS at the other, by means of transmission systems and other resources. Those transmission systems and other resources plainly comprise a "telecommunications network" within the meaning of Article 2(1) of the Interconnection Directive.

147. The Director points out that in purchasing RBS backhaul from BT, Vodafone is essentially reserving transmission capacity on BT's Marconi Synchronous Hierarchy ("MSH") network. That capacity, however, will not necessarily be made available through any dedicated physical asset but more usually by means of the serial connection

of channels derived from several transmission systems, each with a transmitter, a conveyance system (e.g. fibre or copper wires) and a receiver. All of that equipment is considered part of BT's "Applicable Systems" over which it has been licensed to provide telecommunications services under the 1984 Act.

148. In particular the Director contends that BT's own description of the RBS backhaul service it provides supports his contentions in that it makes clear that the circuit is "provided over BT's MSH network" and that, unlike the situation where BT leases a piece of equipment to a mobile operator for it to use, the product is "managed by BT and not accessible to the customer": see BT's own brochure for its Netstream Longline 16 product.

149. BT is wrong to contend that Vodafone's MTX network is not a "telecommunications network" since it does not permit the conveyance of signals between end-users telephone handsets. In fact it is a telecommunications network since it is made up of transmission systems and other resources which permit the conveyance of signals between defined termination points, which include both mobile handsets and the interconnection points with other networks including the RBS backhaul circuit (see below).

150. Contrary to BT's submission, submits the Director, there is no absurdity in the result that an operator's network may in fact comprise a number of parts which could each come within the meaning of "a network".

- *"Defined termination points"*

151. The Director further submits that RBS backhaul as provided by BT comprises transmission systems and other resources which permit the conveyance of signals between "defined termination points" within the meaning of Article 2 (1)(c) of the Directive, namely those at the RBS and at the mobile network point of interconnection.

152. According to the Director, BT's contention that "termination points" are to be understood as points at which "users" initiate or receive messages would mean that an intermediate point where one network connects with another cannot be a defined termination point and that "user" should be understood as referring to "end users".

153. Contrary to BT's submissions, the Director submits that "termination points" in Article 2(1)(c) of the Interconnection Directive are to be understood as points where the network terminates rather than the point where the message or call terminates.

154. Further he submits that the term "users" as defined in Article 2(1)(e) of the ONP Framework Directive, as amended, and in Article 2(1) of the Interconnection Directive means "individuals including consumers or organisations using or requesting publicly available telecommunications services". This interpretation of "users" is also supported by Recital 5 to the Interconnection Directive which refers to "any network or service that is made publicly available for use by third parties."

155. According to the Director, the RBS backhaul service provided by BT is a service that is made publicly available for use by a third party such as Vodafone, which is an organisation using or requesting that service and consequently a "user" as defined by Article 2(1)(e) of the Interconnection Directive and Article 2(1) of the ONP Framework Directive as amended. The fact that Vodafone is capable of being a "user" is reinforced by the distinction made in Article 2(2) of the Voice Telephony Directive between "users", which are defined in the same terms as in the ONP Framework Directive as amended, and a "consumer", which is defined as "any natural person who uses a publicly available telecommunications service for purposes which are outside his or her trade, business or profession." This, submits the Director, emphasises that the term "users" includes, but is not restricted to, "end users". This is also consistent with Article 2(5) of the ONP Framework Directive, as amended, which provides that a network termination point is the physical point at which a user is provided with access to a public telecommunications network.

156. The fact that network termination points are not confined to points at which end users have access to the network is supported, according to the Director, by Article 16 of the Voice Telephony Directive, which requires national regulatory authorities to ensure that organisations with Significant Market Power in the provision of fixed public telephone networks deal with reasonable requests for access "at network termination points other than the commonly provided network termination points referred to in Annex II, Part 1". According to the Director, this plainly encompasses points at which organisations such as

Vodafone require access to a network. Article 16 thus supports the proposition that "network termination points" are points at which other operators, as users, have access to the network, because it is other operators who are making the requests. Similar provision is to be found in Article 4(2) and Recital 6 to the Interconnection Directive. Recital 6 refers to the obligation on operators with Significant Market Power to provide special network access at points other than the network termination points offered to the majority of end users.

157. Thus, argues the Director, the reference to "network termination points" in Article 2(1) of the ONP Framework Directive, comprising the "boundary", for regulatory purposes, of the public telecommunications network, must be understood as comprising points at which the network of one operator interconnects with the network of another operator, as well as the points at which end users have access to the network.

158. Finally in the United Kingdom, and consistently with Article 2(1) of the ONP Framework Directive as amended, the Director has defined the locations of network termination points in Annex A of the licences issued to operators, which defines the limits of the systems to which the relevant licence applies. In Annex A the Director defined "network termination points" expressly to include not only points at which an end user is provided with access to the network, but also points at which other networks connect to the licensee's network. Annexes I and II to the Interconnection Directive also make it clear that the latter points are network termination points.

- *"Physical and logical linking"*

159. As to the question of whether RBS backhaul involves the physical or logical linking of networks, there is no dispute that there is a physical linkage at each end of the RBS backhaul circuit.

160. As to "logical" linking, the Director submits that this requirement is clearly satisfied. First, the signals that BT conveys for Vodafone between the latter's MTXs and its RBSs have to conform to given protocols which determine the logical architecture of the signals so that the conveyance can take place. Secondly the time segmented multiplexing used

by BT to convey the signals involves an intricate logical linkage. Thirdly, the physical route may differ from the logical route over which BT conveys the signals.

161. BT's submission that to establish a logical link it is necessary to demonstrate an element of "interaction and mutual comprehension" of signalling and protocols employed between the two networks concerned overstates the position. In particular there is no need to establish that switching takes place, as it is clear that the definition of a telecommunications network in Article 2(c) of the Interconnection Directive does not require the relevant system to include switching equipment. Annexes I and II to the Interconnection Directive support the same conclusion. Moreover, the level of logical linking involved is no different from the degree of interaction where BT provides other leased line interconnection services such as a PPC. It is not disputed that PPCs constitute a form of interconnection. In the Director's submission, there is similarly a sufficient element of interaction in the provision of RBS circuits to constitute a logical link for the purposes of interconnection.

- *"To allow users of one organisation to communicate with users of the same or another organisation"*

162. Contrary to BT's submission, the Director contends that the scope and aim of the Interconnection Directive is not limited to providing end-to-end user interoperability, as is made clear by Article 1 which states that the aim of the Interconnection Directive is to secure in the community "the interconnection of telecommunications networks and *in particular* the interoperability of services".

163. In any event the Director submits that the function of RBS backhaul is to allow inter-communication between "users", as envisaged by the definition of "interconnection" in Article 2(1)(a) of the Interconnection Directive, which includes communication between "users" of the "same" organisation. RBS backhaul allows Vodafone users to communicate with other Vodafone users as well as with users of other networks. User in this sense is not an intermediate user but an end user.

164. BT's submissions attempt artificially to narrow the reference in the definition of interconnection, to communications between "users of the same organisation" only to cover circumstances where one organisation owns multiple networks. This limitation is

artificial and unwarranted and contradicts the view set out in Mr Butterworth's first witness statement in relation to transit services.

- *Leased lines*

165. The Director rejects BT's contention that leased lines cannot amount to a telecommunications network for the purposes of "interconnection". On the contrary, the Interconnection Directive plainly envisaged interconnection with leased lines. Thus, organisations providing the public telecommunications networks and/or publicly available services specified in Annex I of the Interconnection Directive, which include leased lines, and which have Significant Market Power, are subject to specific obligations with regard to interconnection and access. According to the Director, if organisations that provide leased lines are subject to obligations to interconnect, that must be because the provision of the leased line service involves the use of a "telecommunications network" capable of being physically and logically linked with the telecommunications network of the user of the leased line. Unless that were so, there would be no interconnection within the meaning of Article 2(1) of the Directive. In fact, the provision of a leased line involves a service akin to that involved in RBS backhaul, with the leased line operator similarly conveying signals over its transmission systems on behalf of the user of the leased line. It is therefore not the case, as suggested by BT, that the Directive applies only to complete networks such as Vodafone's whole mobile telephone network, and so cannot apply to part of that network, such as the facilities used in providing RBS backhaul.

166. The Director points out that an RBS backhaul circuit is functionally equivalent to a PPC. BT supplies PPCs on a wholesale basis but refuses to supply RBS backhaul circuits on this basis. According to the Director, this amounts to unlawful discrimination on the basis of the end use of circuits which are functionally equivalent. The prohibition of such discrimination is a central concern of EC telecommunications legislation: see Article 6 of the 1997 Interconnection Directive, and also to Recital 6 and Article 3 of the Voice Telephony Directive.

167. As to whether the supply of RBS backhaul circuits constitutes the supply of leased lines to "users' premises" within the meaning of Annex II of the Interconnection Directive, the

Director submits that Vodafone is "a user" for this purpose, for the reasons already set out above. The Director in this regard relies also on an EC Commission *Working Document on Leased Line Interconnect Pricing* of 31 August 1999 which at page 8 states that "…the term user, as defined in the Interconnection Directive, covers both individuals and organisations as, for example, a network operator providing switched telecom services may also be a user of leased lines." In this regard the provision of leased lines to "users' premises" referred to in Annex II to the Interconnection Directive is equally capable of referring to Vodafone's premises as well.

168. An RBS backhaul circuit has, submits the Director, all the features of a leased line. The circuit in question runs from the end user premises to a point of handover with the other operator's network, for onward transmission, so that the facilities that comprise the relevant network are between an end user termination point at the one end, and a point of handover at the other. In the context of RBS backhaul the Director again emphasises that "end users' premises" is to be understood as Vodafone's premises.

169. According to the Director, the linkage that is involved in the leased lines situation is in order to allow users to communicate with each other within the meaning of the definition of interconnection. The Director submits that where the service in question is provided by BT then the relevant "user" is Vodafone.

- *The 2003 Act*

170. Finally the Director points out that although not directly relevant to the case at hand, even if the provision of RBS backhaul circuits does not amount to interconnection it would fall within the definition of "network access" in section 151(3) of the 2003 Act. The Director indicates that there is a likelihood that BT will be required to provide RBS backhaul services at wholesale prices as a result of the market review being conducted under the 2003 Act, whatever the outcome of this case.

Vodafone's arguments

171. Vodafone supports the case advanced by the Director and relies on certain additional submissions.

- *Transit services and "end user"*

172. Vodafone submits that in order for a service to be characterised as an interconnection service, it is not necessary that it should be directed at, or necessary for, securing interoperability between the end users of the two interconnected networks. Vodafone cites "transit" services as being an example of interconnection services which are not directed at interoperability. Transit services are provided where network operator (A) contracts for interconnection with network operator (B), with the intention that traffic originating on network A will be handed over to network B, for onward transmission to its ultimate destination, a customer of network (C). Vodafone currently has such an interconnection agreement with BT whereby BT carries traffic originating on the Vodafone network destined for termination on a third party network (see Annex C, Schedule 102 to Vodafone's interconnection agreement with BT). This is because it is often more cost effective to carry calls across BT's fixed network than across Vodafone's own mobile network or that of another mobile operator with whom Vodafone has an interconnection agreement.

173. According to Vodafone, there is nothing in the definition of "a telecommunications network" in Article 2 of the Interconnection Directive which suggests that to come within that definition a network must "serve end users directly". The requirement in Article 2(1)(c) that a network must convey signals between defined termination points is imposed in order to exclude from the definition systems which permit the broadcasting of signals for general reception. The type of termination point is not material, merely that there should be defined termination points of some kind. That this is the case is made clear from the fact that under Article 2 of the new Framework Directive an "electronic communications network" includes television and radio broadcasting systems with the result that the requirement that a network should permit the conveyance of signals between defined termination points is not included in the definition of an electronic communications network under that Directive.

174. Furthermore, according to Vodafone, the obligation to offer interconnection is not limited to organisations operating networks which serve end users directly. Annex II to the Interconnection Directive lists the categories of organisations with rights and obligations

to interconnect. While those categories include some organisations which serve end-users directly, other organisations also included do not necessarily serve end users directly, for example organisations which provide leased lines to users' premises, and organisations authorised in a Member State to provide international telecommunications circuits between the Community and third countries, for which purpose they have special or exclusive rights. Vodafone contends that it is clear that the leased lines category will include leased lines provided to other network operators, and not just to end users.

– Other provisions of the Interconnection Directive.

175. In addition to the specific provisions of the Interconnection Directive, referred to in the Director's submissions, Vodafone referred to Recital 1, referring to the liberalisation of infrastructure as well as services, Recital 2, Recital 4, referring to leased lines as being a method of joining up different networks, Recital 6, Recital 8 and Recital 10, which contemplates not only a general interconnection charge but unbundled charges for using particular segments of the network which, submits Vodafone, supports a right of interconnection just to use particular segments, such as an RBS backhaul circuit. Recital 10 also refers to "capacity based charging" which is particularly suited to the provision of leased lines. In addition, Recital 12 refers to the adequacy of interconnection including, according to Vodafone, at "a variety of network termination points".

176. According to Vodafone, the "reference interconnection offer" provided for by Article 7 and Annex IV of the Interconnection Directive clearly contemplates different types of interconnection, including that where a person wishes to "supplement" their network. The requirements in Article 8 to provide separate and detailed accounts in respect of interconnection activities is also consistent with Vodafone's contention that interconnection operators may be "seeking interconnection to different limbs of the overall network". Article 9 refers not only to the fact that the purpose of interconnection is to ensure end to end communications for users, but also to the need to stimulate a competitive market which, Vodafone submits, is a separate objective of the Interconnection Directive.

- Leased lines

177. As regards leased lines, according to Vodafone this is an ambiguous term as it can connote both a retail and wholesale service. When the service is provided to a wholesale customer, it is an interconnection service because it is offered to a person who has rights and obligations to interconnect under Annex II of the Interconnection Directive. In other situations when the service is offered by BT at the retail level, for example to a bank which has its own private network which needs to connect to another operator's network, the bank does not provide publicly available telecommunications services and accordingly is not invoking rights under the Interconnection Directive.

178. According to Vodafone, leased lines are not, as BT submits, a separate category of interconnection distinct from other categories of interconnection. In particular the definition of leased lines in Annex I, Part 2 of the Interconnection Directive makes clear that a leased line is capable of being a telecommunications network as it comprises equipment and resources permitting the conveyance of signals between defined termination points.

179. Vodafone submits that there is nothing in the Interconnection Directive to suggest that leased lines may be required to be provided by way of interconnection only in the form of partial circuits for the purpose of facilitating competition in the resale of complete leased lines by network operators. The EC Commission *Recommendation on Leased Line Interconnect Pricing* of 1999 addresses only one purpose for which leased line interconnection may be required, and is not exhaustive of the scope of the rights and obligations of Annex II operators to effect leased line interconnection.

- *Reasonable requests*

180. Finally, Vodafone observes that the obligation to interconnect imposed on SMP operators only arises where the request is "reasonable". This requirement prevents any potential distortion of competition, since the right to use a segment of BT's network where it was more cost effective for that segment to be self provided would not be "reasonable". Moreover Article 9(5) of the Interconnection Directive refers to various factors that the national regulatory authority must take into account, including the availability of technically and commercially viable alternatives to the interconnection requested. This

would come into play to limit any requests for interconnection which were unreasonable and which might create distortions of competition.

O2's arguments

181. In its statement of intervention received by the Tribunal on 17 October 2003, O2 confirms that there is no material difference in the way that it and Vodafone obtain and use RBS backhaul circuits. O2 also supports the legal analysis and conclusions put forward by the Director and Vodafone.

182. O2 adopts the submissions of the Director and Vodafone on the meaning of "interconnection" and stresses the importance of having regard to the literal meaning of the words used in the Directive. That approach supports the Direction made by the Director.

VII THE TRIBUNAL'S ANALYSIS

183. We begin by reminding ourselves that this case falls to be decided by reference to the now repealed Interconnection Directive as implemented in the United Kingdom and not by reference to the apparently more widely drafted provisions of the 2002 Directives now brought into force by the 2003 Act. It is convenient to analyse the issues under two main headings – A. Interconnection and B. Leased lines. When dealing under A with Interconnection, we leave aside for the moment all issues and arguments relating to leased lines, which we deal with under B.

A. INTERCONNECTION

The Parties' main arguments

184. BT's essential arguments are:

(a) The Directive is concerned with the interoperability of networks and services, and not competition in the abstract.

(b) An RBS backhaul circuit does not ensure interoperability.

(c) The provision of transmission capacity is not "interconnection".

(d) While there is physical linking, there is insufficient "logical" linking to constitute "interconnection".

(e) There are not two telecommunications "networks" since:

(i) For all practical purposes the RBS backhaul circuit forms part of Vodafone's network, not BT's.

(ii) The RBS backhaul circuit is not itself a "network".

(iii) Neither Vodafone's MTXs, nor the resources used by BT to convey signals between Vodafone's RBS and Vodafone's MTX are, in themselves, a "network".

(f) Neither of the "networks" suggested by the Director have "defined termination points" for the purposes of Article 2(1)(c) since that expression, in its context, denotes termination points at the end-user.

(g) Vodafone is not a "user", that expression in Article 2(1)(e) meaning end users.

(h) The RBS backhaul circuit does not permit "users of one organisation to communicate with users of the same or another organisation" within the meaning of Article 2(1)(a).

(i) Transit interconnection, while admittedly interconnection, is not analogous to RBS backhaul.

185. Subject to his submissions as regards leased lines dealt with in Section B below, the Director's argument, in its essentials, is based on a textual analysis of the Directive and involves the following propositions:

(a) The Interconnection Directive is not limited to achieving "interoperability" but has other objectives, including the promotion of competition.

(b) There is "physical and logical linking" within the meaning of Article 2(1)(a).

(c) There are two "telecommunications networks" within the meaning of Article 2(1)(c), namely:

(i) Vodafone's system of MTXs and

(ii) "the transmission systems and other resources used by BT for the conveyance of signals between Vodafone's RBSs and Vodafone's MTXs".

(d) The relevant "defined termination points" of those two networks within the meaning of Article 2(1)(c) are situated at:

(i) the point of connection between the RBS backhaul system and Vodafone's systems of MTXs; and

(ii) the RBS.

(e) The expression "defined termination points" is not confined to a point where end-users have access to the network.

(f) Vodafone is a "user" using or requesting publicly available telecommunications services within the meaning of Article 2(1)(e).

(g) The RBS backhaul circuit permits "the users of one organisation to communicate with users of the same or another organisation" within the meaning of Article 2(1)(a).

(h) The RBS backhaul circuit involves a service that is closely analogous to "transit interconnection", which is accepted to be interconnection.

The context of the Directive

186. It is, we think, well known that European Directives are not necessarily drafted with the same detail and technicality of some Acts of Parliament. Moreover, our experience in this case suggests that in this fast moving industry various expressions do not necessarily have a precise legal meaning, or may be used in different senses in different contexts. In those circumstances it seems to us that the right starting point for our analysis is to place the Interconnection Directive in its historical context.

187. At the risk of stating the obvious, we observe, first, that the subscribers of one telephone network cannot communicate with the subscribers of another telephone network at all unless the two networks are interconnected. A subscriber in Kingston upon Hull could not call anyone outside Hull if the Kingston Communications network were not interconnected with the BT network; a BT subscriber could not call a number in France unless the BT network was interconnected with the relevant French telephone network; a Vodafone subscriber could not call a BT customer unless there were an interconnection agreement in place between BT and Vodafone; and so on.

188. It seems to us clear that, at least until the late 1990s the expression "interconnection" as customarily used in the telecommunications industry denoted the interconnection or linking of two telephone networks for the purpose of enabling the subscribers to network A to communicate with any of the subscribers to network B, or access the telephone services offered by network B, and vice versa.

189. Thus, as BT points out, in the Director's statement *Promoting Competition in Services over Telecommunications Networks*, in February 1997, paragraph 4.1 stated, with reference to the system of interconnection established under old condition 13 of the BT Licence (paragraph 17 above):

> "4.1 The fundamental objective behind the concept of Relevant Connectable Systems is to ensure that the networks run by the Public Telecommunication Operators (PTOs) such as BT, Kingston, Mercury, MFS, Energis, Ionica, COLT, and the cable operators are capable of being interconnected. *Thus all PTOs (in principle) have an obligation to interconnect with those running Relevant Connectable Systems when*

> *requested to do so. In this way, theoretically, any customer of a PTO can reach any customer of another PTO over the Public Switched Telecommunication Network (PSTN).”* (emphasis added by the Tribunal).

190. Similarly the Director’s document *Interconnection and Interoperability A Framework for competing networks*, April 1997 defines “Interconnection” in Table 1.1 as:

> “Interconnection means the physical and logical connection of two operators’ networks *thereby allowing customers of one system to connect with customers of the other, or to access services provided from the other system*”. (emphasis added by the Tribunal).

191. It is not without interest that in the *Interconnection and Interoperability* document of April 1997, the Director discusses in some detail why regulatory intervention on interconnection may be necessary in order to secure interoperability. Thus in Annex B2 under the heading “Significance of Any to Any”, the Director states at paragraph B2.3:

> “B2.3 Since the early days of telecoms liberalisation in the UK, it has been generally accepted that any telephone user dialling from a Network Termination Point should be able to call any other accessed by a national number. With the prospect of competing interconnected networks, it was important to ensure that all users were able to dial direct to others. This was obviously in the interests of users who expect to be connected to any number they dial, but also promoted network competition and fair trading by ensuring that market entrants would not face the formidable barrier to entry from lack of access to and from their networks. Interconnection of ‘any to any’ services was therefore particularly important and remains so today for the same reasons.”

192. That document then proceeds to discuss how far interconnection should be regulated so as to achieve interoperability not just for basic services such as voice telephony, but also for other services such as premium rate services, Local Rate Call Services (0845 numbers), Ring Back When Free, and so on, then becoming increasingly available. The Director there points out that, while smaller networks will have every incentive to interconnect with larger networks, in order to be able to compete with the larger operator, the same is not necessarily true in reverse: a larger operator with market power may have considerably less incentive to interconnect with the smaller network, and may be in a position to set high connection charges or to control or limit interoperability by its control of the technical interface between the different networks (paragraphs 3.7 to 3.8). One example given by the Director of the potential asymmetry of competition without interoperability is that of a large established network operator offering a Local Rate Call Service to an Independent

Service Provider (ISP) providing access to the Internet. A smaller network provider may be better placed to service the ISP, but could not do so without interconnection with the larger network, since the bulk of the ISP's customers would be likely to be on the network of the established operator. Thus, according to the Director in this April 1997 document, interconnection is necessary to ensure effective competition between networks, not just as regards the ability to reach any other telephone user, but also as regards the services provided by different telephone networks.

193. Although the Director's *Interconnection and Interoperability* document of April 1997 refers to what was, at that stage, the draft Interconnection Directive, there is no suggestion in that document that the draft Directive was intended to extend the meaning of "interconnection" beyond the conventional meaning of a connection between two operators' networks allowing customers of one system to connect with customers of the other, or obtain services from the other networks.

194. The Interconnection Directive was adopted on 30 June 1997 and was required to be implemented by 31 December 1997 (Article 23 of the Directive).

195. In October 1997 the Department of Trade and Industry ("DTI") published its *Implementation of the Interconnection Directive Consultation Paper*. According to the DTI, the effect of the Interconnection Directive was to extend the rights and obligations pertaining to interconnection to a wider category of operators than those having RCS status (paragraph 17 above) but, apart from that, the DTI said that "The Interconnection Framework presented by the Directive is very similar to that already existing in the UK" (paragraph 6). According to paragraphs 8 and 9 of that document:

> "8. Under the current interconnection arrangements in the UK, operators who have Relevant Connectable System (RCS) Status have the right to negotiate reasonably required interconnection with public telecommunications operators (PTOs). Any operator with an individual licence who provides public services is deemed to have RCS status unless the Director determines otherwise. *These interconnection requirements were designed to ensure that customers on one network could reach customers, or services, on another network …*
>
> 9. *The interconnection requirements of the Directive are intended to achieve the same end as the RCS status regime*, but the approach to which type of operator is able to interconnect is somewhat different. *The*

> *Directive sets out a framework for achieving end-to-end communications across interconnected, interoperable networks.* Annex II and Article 4(1) of the Directive define those operators who have rights and obligations to interconnect."
> [emphasis added by the Tribunal]

At paragraph 19 the DTI said:

> "Interconnection Services.
>
> The services to which interconnection rights and obligations apply are *those which will secure the interconnection and interoperability of telecommunications networks for end to end users.* In the case of BT, the services which it must currently provide are those that appear on BT's List of Standard Services (this list covers all the network services BT offers and is updated as BT agrees to provide new services or the Director determines that they should). (There are a few additional interconnection services, such as Telex and some basic data services which may be required by the Directive and will need to be added to the current list). *The services covered are those that involve the linking of telecommunications networks. This does not include the provision of the complete end-to-end telecommunications service itself.* The Directive does not apply to systemless resale of another operator's retail services."
> [Italicised emphasis added by the Tribunal. Underlining in original]

196. The above documents tend to indicate, in our view, that in 1997 the relevant United Kingdom authorities took the view that the essential purpose of interconnection was to achieve "end to end" or "any to any" communication across interconnected, interoperable networks and that the Directive was not, in that regard, intended to effect any significant change.

197. The Interconnection Directive and the 1997 Regulations having come into force on 31 December 1997, in April 1998 the Director published a further statement on *Interconnection & Interoperability of Services over Telephony Networks* which followed up his earlier statement of April 1997 referred to above. In that April 1998 statement the Director said at paragraphs S1 and S2:

> "S.1 This document is intended to update those within the industry who have followed the extensive consultation on the regulation of interconnection and interoperability. It describes how the proposed regulation will be implemented and seeks comments on the latest version of the Guidelines which will support the regulations.

S.2 Oftel's policy on interconnection and interoperability has been developed through discussion and consultation with interested parties. The main conclusions of this exercise are:

Interconnection and interoperability of services is **important for customers** who want to be able to use services *whether or not they are customers of the operator which has launched the service*, and whatever customer premises equipment (CPE) they use.

Interconnection and interoperability of services is **important for public telecoms operators** *who may wish to make their own services available more widely than to just their own directly connected customers*, and also *to provide their customers with use of services launched by other operators.*

Interconnection and interoperability of services is therefore **important for the maintenance of effective competition**. Without it operators with large networks will have an inherent advantage over those with smaller networks because of the size of the customer base to which their services are available.

…

Regulation is required to ensure that:

- Technical specifications of *interfaces between networks* and CPE for Network Services must be published with sufficient notice before the launch to enable other operators and equipment manufacturers to prepare. In addition, operators with interface control must provide technical specifications of proposed network-network interfaces for consultation in advance of publication.

- Technical specifications of interfaces *between competing networks (network-network interfaces) for Network Services must be published with sufficient notice before the launch* to enable other operators and equipment manufacturers to prepare when such specifications are 'commonly provided' (i.e. generally available). In addition, operators with interface control must provide technical specifications of proposed network-network interfaces for consultation in advance of publication.

- An operator with market power should ensure *that other operators are able to interconnect Network Services simultaneously with the launch of its own corresponding retail service* or, where there is no such retail service, when new functionality in the network becomes available for use."

  (italicised emphasis added by the Tribunal)

198. It would appear at this stage that, in the Director's thinking, "interconnection" was still essentially concerned with interoperability. Interoperability was seen as important not only as regards the ability of customers of one network to communicate with customers of another network, and access services supplied by another network, but also as the means whereby operators of networks could make their services available, not only to their own customers, but also to customers of other networks, thereby enhancing competition. However, the regulatory rules which the Director saw, at that stage, as necessary seem to have been largely confined to the availability of technical specifications of interfaces between networks and the making available to other operators of certain network services such as "Ring Back When Free".

199. In April 1999 the Director issued a further statement on *Rights and obligations to Interconnect under the EC Interconnection Directive*. This stated, in paragraph 1.2:

> *"1.2 The EC interconnection rules are designed to ensure end-to-end interoperability of networks, equality of access and universality of service. In practice, this means ensuring that customers to whom access is provided by one operator, can contact customers to whom access is provided by a different operator. Thus, regardless of who provides the facilities which customers elect to use to access telecoms services, they can communicate with one another."*

200. Paragraph 2.14 of that document is to the same effect:

> *"2.14 Further, the rules in the ICD are designed to achieve end to end interoperability so that customers to whom access is provided by one network or service provider can communicate with customers accessed via another."*

201. In relation to the question of which operators had rights and obligations to interconnect, by virtue of the combined effect of the Interconnection Directive and the Licensing Directive (paragraph 20 above) paragraph 1.11 of the same document states:

> "1.11 Oftel and DTI are implementing the EC provisions on rights and obligations to interconnect *in a way which avoids a step change or a significant reduction in interconnection rights. Implementation reflects, as closely as possible, pre-existing UK rules*, altering the framework by the minimum required to satisfy the provisions of the Licensing Directive. Under the new rules, most operators who already have interconnection rights will keep them, although some will acquire obligations to interconnect for the first time. In addition, some operators who were not

previously eligible for interconnection, for example because they were operating under a class licence, will become eligible."

(emphasis added by the Tribunal)

202. We conclude from the foregoing that at least up to 1999 the Director and the DTI saw "interconnection" in terms of "end to end" and "any to any" interconnection between networks, and did not understand the Directive to make any significant change in that regard.

General scheme and purpose of the Directive

203. Against that background, we next consider the general scheme and purpose of the Directive, as ascertained from its text.

204. First of all, it seems to us that it may reasonably be inferred from a reading of the Interconnection Directive as a whole that the overarching purpose of that Directive is to establish a Community-wide framework for interconnection between networks, so as to secure interoperability in the sense that the end users of one network are enabled to communicate with the end users of another network or access services available to the latter.

205. That seems to us to emerge, notably, from recitals 2, 4, 5, 6 and 12, Articles 1, 3, 4 and 9, and Annexes I and II, set out at paragraph 21above.

206. In particular, recital 2 to the Directive points out that "a general framework for interconnection to public telecommunications networks and publicly available telecommunications services is necessary … *in order to provide end to end interoperability of services for Community users"* (emphasis added). We note also Recital 5 which states that "it is necessary to ensure adequate *interconnection within the Community of certain networks and interoperability of services* essential for the social and economic wellbeing of Community users, notably fixed and mobile public telephone networks"; and recital 12 which refers to *interconnection of networks and interoperability of services*, requiring interconnection "where it can be demonstrated that this is in users' interests".

207. Recital 2, and the other recitals referred to above, are then implemented notably by Article 1 and Article 3(2). Article 1 under the title "Scope and aim" states that the Interconnection Directive "establishes a regulatory framework for serving in the community *the interconnection of telecommunications networks and in particular the interoperability of services …"*. That is reinforced by Article 3(2) which requires Member States "to ensure the adequate and efficient interconnection of the public telecommunications networks set out in Annex I, *to the extent necessary to ensure interoperability of these services for all users within the Community"*.

208. Hence, in our view, the basic obligation of Member States in the Directive is to secure interconnection with a view to ensuring the interoperability of services, i.e. the ability of a customer on Network A to call a customer on network B, or to call any publicly available service supplied by network B to its customers.

209. That in our view is further supported by the terms of Annexes I and II, which define upon whom, and to what extent, the obligations of interconnection under Articles 3 and 4 of the Directive are imposed.

210. Annex I in our view defines both the specific "public telecommunications networks" that are subject to interconnection obligations and the "publicly available telecommunications services" which are required to be interconnected.

211. Leaving "leased lines" on one side for the moment (see Section B below), the "public telecommunications networks" which are considered to be "of major importance at European level", in respect of which specific obligations of interconnection arise are, according to Annex I: "The fixed public telephone network", as defined in Part I of Annex I and "Public mobile telephone networks". As defined in Part II of Annex II, a public mobile telephone network "is a public telephone network where the network termination points are not at fixed locations".

212. Having defined the types of *public network* to which obligations of interconnection apply, Annex I of the Directive further defines *the types of publicly available services* to which obligations of interconnection apply. Those are "the fixed public telephone service" and "public mobile telephone services" respectively.

213. In the case of the fixed public telephone network, the *"fixed public telephone service"* required to be interconnected is defined as:

> "the provision to end-users at fixed locations of a service for the originating and receiving of national and international calls, and may include access to emergency (112) services, the provision of operator assistance, directory services, provision of public pay phones, provision of service under special terms and/or provision of special facilities for customers with disabilities or with special social needs.
>
> Access to the end-user is via a number or numbers in the national numbering plan."

214. In the case of public mobile telephone networks, "*the public mobile telephone service*" is defined as:

> "a telephony service whose provision consists, wholly or partly, in the establishment of radio communications to one mobile user, and makes use wholly or partly of a public mobile telephone network."

215. The obligation on Member States under Article 3(2) is thus in our view to ensure the adequate and efficient interconnection of those fixed and mobile public telephone networks, "to the extent necessary to ensure interoperability of these services for all users in the Community". In Article 3(2) "these services" in our view refers to the publicly available services provided by those networks, being the fixed public telephone services, and the public mobile telephone services, defined in Annex I.

216. By Article 4, which is headed "rights and obligations for interconnection"

> 1. Organizations authorized to provide public telecommunications networks and/or publicly available telecommunications services as set out in Annex II shall have a right and, when requested by organizations in that category, an obligation to negotiate interconnection with each other for the purpose of providing the services in question, in order to ensure provision of these networks and services throughout the Community
> …
>
> 2. Organizations authorized to provide public telecommunications networks and publicly available telecommunications services as set out in Annex 1 which have significant market power shall meet all reasonable requests for access to the network including access at

> points other than the network termination points offered to the majority of end-users.

217. Again under Article 4(1), the right and obligation to negotiate arises "for the purpose of providing the services in question", that is to say, in our view, "the publicly available telecommunication services" defined in Annex I. That, in turn, is "in order to ensure provision of these networks"- i.e. the public fixed and mobile networks defined in Annex I- "and services"- i.e. the publicly available services as there defined- "throughout the Community".

218. The right and obligation to negotiate under Article 4(1) for the purpose of providing the services in question, in order to ensure provision of these networks and services, is thus in our view concerned with interoperability between the defined public networks in the provision of the defined publicly available services. That obligation is thus fully consistent with the obligations on Member States in Article 3(2) which arise "to the extent necessary to ensure the interoperability of these services for all users within the Community".

219. That approach is further reflected in the definition of the relevant organisations in Annex II. The organisations referred to in Article 4 which are relevant for present purposes are defined in Annex II as:

> "1. Organizations which provide fixed and/or mobile public switched telecommunications networks and/or publicly available telecommunications services, and in so doing control the means of access to one or more network termination points identified by one or more unique numbers in the national numbering plan…"

220. Thus under paragraph 1 of Annex II the organisation in question must (a) provide fixed and/or mobile public switched telecommunications networks; and/or (b) provide publicly available telecommunications services; and (c) *in so doing* control the means of access "to one or more network termination points identified by one or more unique numbers in the national numbering plan".

221. In our view it is plain that, in effect, the organisation having interconnection rights and obligations must control the means of communicating with the end customer's telephone

number (or, strictly speaking, the network termination point at which the customer's telephone is situated). That is made clear by the notes to Annex II which provide:

> "Control of the means of access to a network termination point means the ability to control the telecommunications services available to the end-user at that network termination point and/or the ability to deny other service providers access to the end-user at the network termination point. Control of the means of access may entail ownership or control of the physical link to the end-user (whether wire or wireless), and/or the ability to change or withdraw the national number or numbers needed to access an end-user's network termination point."

222. Thus, reading the legislative scheme of Articles 3 and 4 and Annexes I and II as a whole, it seems to us fairly clear that the right and obligation imposed on Annex II organisations by Article 4(1) *to negotiate* "interconnection with each other for the purpose of providing the services in question, in order to ensure provision of these networks and services throughout the Community" refers to a mutual obligation to negotiate interconnection for the purpose of ensuring that the publicly available telecommunications services referred to in Annex I (i.e. "the fixed public telephone service" and "public mobile telephone service(s)" as there defined, available from "the fixed public telephone network" and "public mobile telephone networks" as there defined) are made available to all end users throughout the Community regardless of the particular network to which the end user happens to be a subscriber. That objective is supported by the obligation on Member States in Article 3(2), which arises "to the extent necessary to ensure interoperability".

223. Against that background, the scope of the obligation imposed by Article 4(2) on relevant organisations having significant market power under Article 4(3) to "meet all reasonable requests for access to the network including access at points other than the network termination points offered to end users" is in our view clear. The essential obligation, in our view, is to provide "a point" of interconnection that is not situated at the end user (i.e. is not at "the plug in the wall"), for the purpose of permitting a customer of network A (i.e. a fixed or mobile public network) to communicate with customers of public network B, and to obtain from network B the publicly available services offered by network B to its customers, and vice versa. That interpretation, it seems to us, is consistent with the recitals and with Articles 1, 3 and 4 of the Directive as we interpret them.

224. We note also that the obligations of non discrimination and transparency imposed on organisations having significant market power under Article 6 of the Directive must be ensured by member States:

> "For interconnection to public telecommunications networks and publicly available telecommunications services as set out in Annex I".

225. Again, leaving aside for the moment leased lines in Part 2 of Annex I (see section B below) it seems to us that the non discrimination obligation in Article 6 therefore falls to be imposed in relation to the fixed public and mobile networks as defined in Annex I, and in respect of the publicly available telecommunications services referred to in Annex I, namely the fixed public telephone services and the public mobile telephone services made available to the end user as there set out. Similarly it is to the organisations which provide those networks and/or publicly available services that the provisions of Article 7 (interconnection charges) and Article 8 (accounting separation) apply. In particular it seems to us from Article 8(2) that the "interconnection services" there referred to are the services of interconnection that the organisations in question offer to each other, and not the "publicly available" services offered by the organisation to end users, the interoperability of which the "interconnection services" are intended to achieve.

226. Finally, Article 9(1) refers to the responsibility of national authorities to "encourage and secure adequate interconnection in the interest of all users, exercising their responsibility in a way that provides maximum economic efficiency *and gives the maximum benefit to end users*. The national regulatory authorities must, in particular, take into account "*the need to ensure satisfactory end-to-end communications for users*" (emphasis added). Under Article 9(5), in resolving disputes the national regulatory authority must take into account "the user interest" and "the desirability of stimulating innovative market offerings, and of providing users with a wide range of telecommunication services at a national and Community level". For reasons we elaborate in more detail below, it seems to us that Article 9, read in the context of the Directive as a whole, relates on its face to interconnection disputes between networks where the interconnection in question is sought in order to achieve interoperability in the sense of enabling a customer of one network to communicate with customers of another network, or access the services of the latter. "Users" in this context seem to us to connote, on its natural meaning, the "end users" of the different public networks in question.

227. Taking the recitals and provisions of Articles 1, 3, 4, 6, 7, 8 and Annexes I and II together, we therefore conclude that the general scheme and purpose of the Directive is to secure "end to end" and "any to any" interoperability between the public networks concerned, with the object of enabling the subscribers of one network to communicate with subscribers of other networks and to obtain publicly available services from the latter.

Is RBS backhaul within the general scheme and purpose of the Directive?

228. It seems to us, on the basis of the agreed facts, that the supply of an RBS backhaul service does not on the facts involve "interconnection" in the sense of a connection between networks made for the purpose of achieving "end to end" or "any to any" interoperability, i.e. enabling the subscribers to one network to communicate with the subscribers to, and/or have access to the services provided by, the other network.

229. We thus accept, in principle, BT's submission that in a case such as the present the essential purpose of an RBS backhaul circuit is to enable Vodafone to construct its (Vodafone's) network, rather than to ensure "any to any" or "end to end" interoperability between subscribers to Vodafone's network and subscribers to BT's network, or indeed between subscribers to Vodafone's network and any other network.

230. As appears from the agreed statement of facts, the function of the RBS backhaul circuit is to link a *Vodafone* RBS and a *Vodafone* BSC/MTX. That link may be provided in a number of ways, either by a microwave link or a copper/fibre wire, either self-provided by Vodafone, or brought in from BT or another supplier. However it is provided, the function of the RBS backhaul circuit in our view is to enable the Vodafone subscribers in the vicinity of the RBS to make and receive calls over the Vodafone network.

231. We emphasise that the supply of an RBS circuit does not, of itself, enable any Vodafone subscriber to communicate with a BT subscriber or any other subscriber, or to access any services provided by any other network, or vice versa. For that to happen, it is necessary to

establish a point of interconnection, normally at the MTX switch, capable of transmitting the dialled digits of the Vodafone subscriber across to the BT network. That in our view emerges particularly clearly from paragraphs 100 to 101 above, which show that even where the Vodafone subscriber is calling a subscriber on the BT network, the call passes from the RBS to the MTX, and *thence* to a point of interconnection with the BT network. It is thus only *after* the MTX is reached that there is a point of interconnection which allows interconnection, in the sense of interoperability, to take place.

232. This point may be illustrated by the Competition Commission's Report of December 2002, cited above, regarding the charges made by Vodafone, O2, Orange and T-Mobile for terminating calls from fixed and mobile numbers.

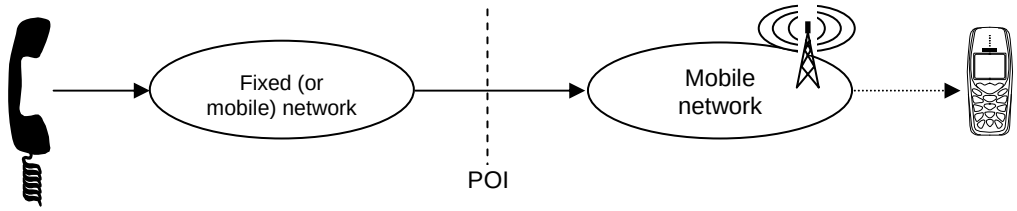
233. At paragraphs 3.10 to 3.13 of Volume II of that Report, under the heading "The basic principles of calling a mobile phone" the Competition Commission said this:

> "3.10 The fundamental difference between mobile phones and fixed phones is that mobile phones transmit and receive voice and data calls using radio connections specifically designed to allow the user to move around whereas fixed telephones use connections (either wired or wireless) which are fixed in location. In a mobile network, the radio connections are only between the handset and the nearest base station, in the same way that a fixed telephone is connected to the local exchange (or concentrator unit).
>
> 3.11 The remainder of a mobile network is then similar to a fixed network. A series of switches and their associated processors support the radio coverage provided by the cells and supply the intelligence for the network. The processors decide the location to which the call should be switched, whether this is just to the next switch in the network or to another fixed or mobile network. The switches direct the calls across the network until they reach their intended destination or a point of interconnection.
>
> 3.12 In order for a mobile phone to be able to make or receive a call, it must be within radio coverage of a base station and registered with the network. The area (or areas in the case where the coverage of a base station is split into a number of sectors) of radio coverage provided by base stations are known as 'cells', so named because the pattern of coverage formed from the number of base stations is cellular (similar to a honeycomb).
>
> **Interconnection**

3.13 The point at which two networks are joined is called the point of interconnection (POI). Any two networks can be connected at a POI, whether a fixed and a mobile network, two mobile networks or two fixed networks. Figure 3.1 illustrates interconnection between a fixed and a mobile network. For a customer of one network to communicate with a customer of another, the two networks must be interconnected either directly or indirectly.

Figure 3.1

Illustration of POI



234. Thus in the above description at paragraph 3.13, the Commission refers to the point of interconnection being situated at "the point at which two networks are joined", the purpose being "for a customer of one network to communicate with a customer of another".

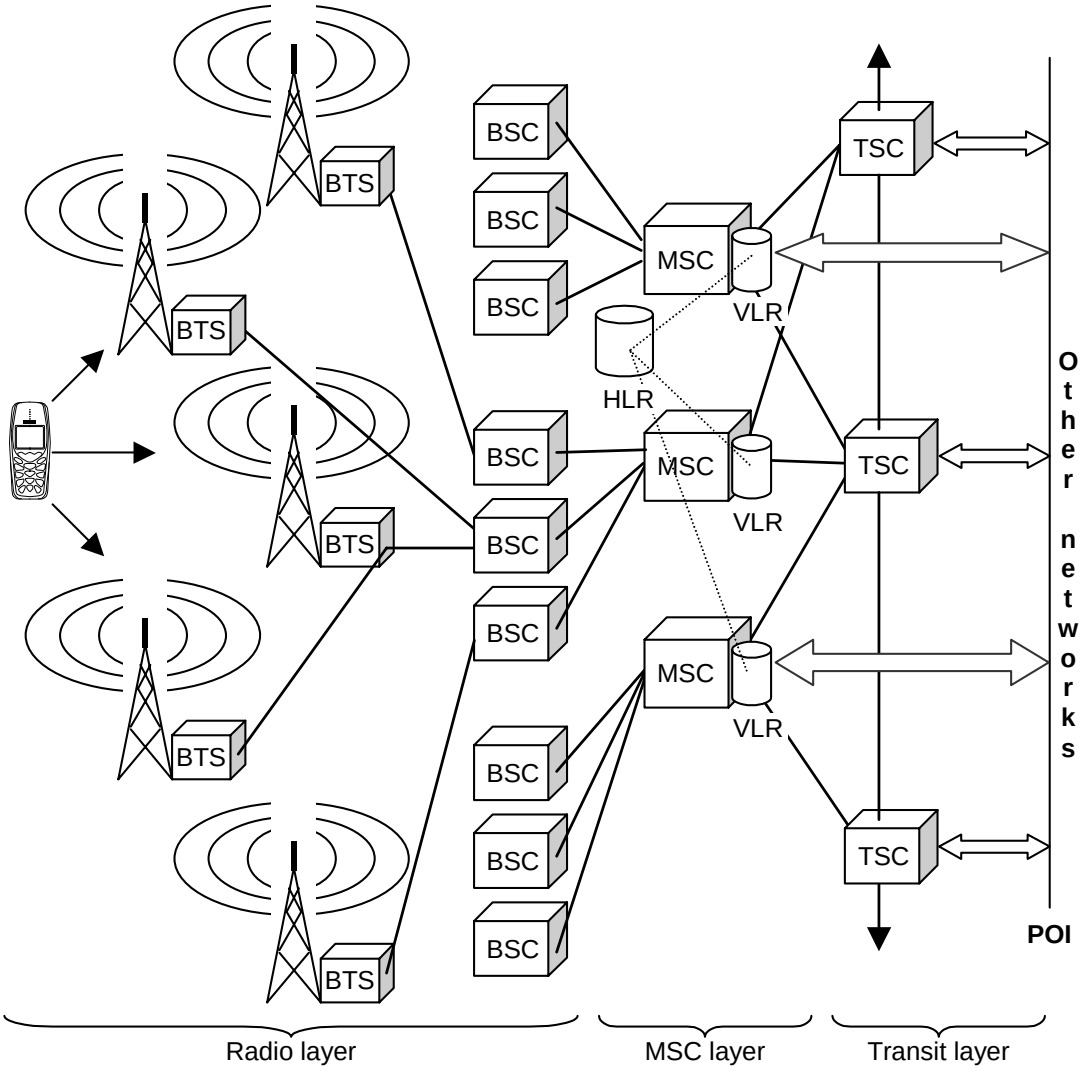
235. The matter is also presented, in a somewhat more complex way, at figure 3.3 of the Competition Commission Report. Confusingly for our purposes the Commission uses slightly different nomenclature to that used by the parties in this appeal. In figure 3.3, which is reproduced below, the RBS is signified by the initials "BTS" (base transceiver station) and the MTX is signified by the initials "MSC" (mobile switching centre). The BSC is however still shown in figure 3.3 by the initials BSC (base station controller). The HLRs (Home Location Registers) and VLRs (Visitor Location Registers) shown in figure 3.3 are not relevant for present purposes. The TSCs shown to the right of the MSCs in figure 3.3 represent a transit layer that is not found in all networks and again is not relevant for present purposes.

236. It can be seen from figure 3.3 below that the point of interconnection (POI) with other networks is shown on the extreme right of figure 3.3 where “other networks” are indicated. Paragraph 3.20 of the Report states:

> “3.20 Figure 3.3 illustrates, in a general way, the main components of a GSM mobile network. The network is broken down into several layers, each with its own characteristics and purposes. The individual components are described below.

Example generic GSM network architecture

Figure 3.3



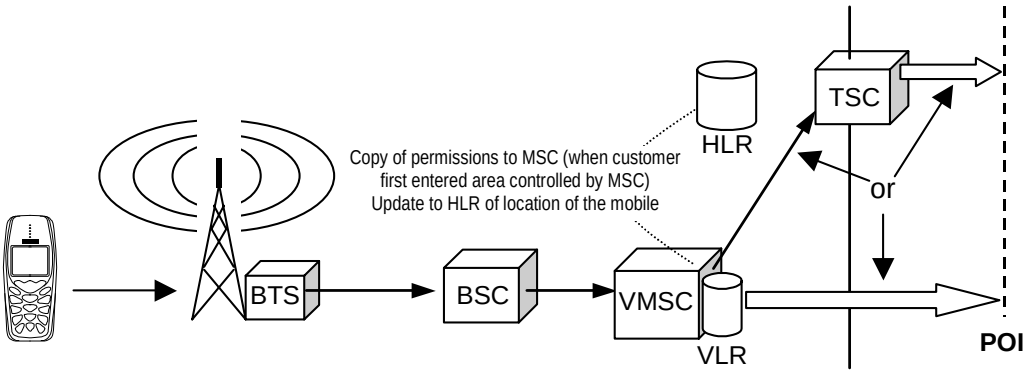
237. After describing, at paragraphs 3.21 to 3.28 of its Report, the various layers of a mobile network, namely the "radio layer" (i.e. the BTS to the BSC, or in the terms of these proceedings, the RBS to the BSC), the "mobile switching centre layer" (from the BSC to the MSC, or in our terms, MTX) and the "transit layer" (not relevant here) the Competition Commission states at paragraph 3.29, under the heading "The point of interconnection":

> "3.29 As already discussed in paragraph 3.13, the POI is the point at which the network connects with other networks, be they fixed telecommunications networks (such as BT, CWC or Energis) or other mobile networks. The POI can be on the transit layer (at a TSC) or may be directly at an MSC. It is common for interconnected parties to have two (or more) interconnect points for resilience."

238. It is clear from figure 3.3 and the accompanying text that the Commission places the "point of interconnection", to the right of the MSC (MTX) on the diagram, at the point of interconnection with other networks.

239. Similar descriptions and diagrams appear at paragraphs 3.50 to 3.53 and figures 3.5 and 3.6 of the Commission Report, which describes the routing of outgoing calls, and the routing of calls to a mobile on another network of that Report. That material again indicates that the point of interconnection with another network is not between the BTS (RBS) and BSC or MSC (MTX) but at a point at or beyond the MTX. The Commission's description is as follows:

> "Routing of outgoing calls
>
> 3.50 When a mobile subscriber makes an outgoing call, the mobile phone sends a message to the nearest BTS and passes to it details of the call (the called party's number etc.). The MSC which controls the BTS providing coverage to the mobile is known as the visited MSC (VMSC). When the mobile is first registered with the VMSC, the VMSC receives from the HLR a copy of the customer's permissions and stores it in the VLR. Upon making a call, the VMSC checks that data to see that the subscriber has permission to make the call. Once permission to make the call has been established a voice connection from the mobile subscriber through a BTS and a BSC to the VMSC is made. The VMSC either passes the call to the transit layer which then routes the call to an appropriate POI or passes it to the appropriate network directly if there is a POI at the VMSC. This is illustrated in Figure 3.5.
>
> **Routing of an outgoing call**
>
> Figure 3.5



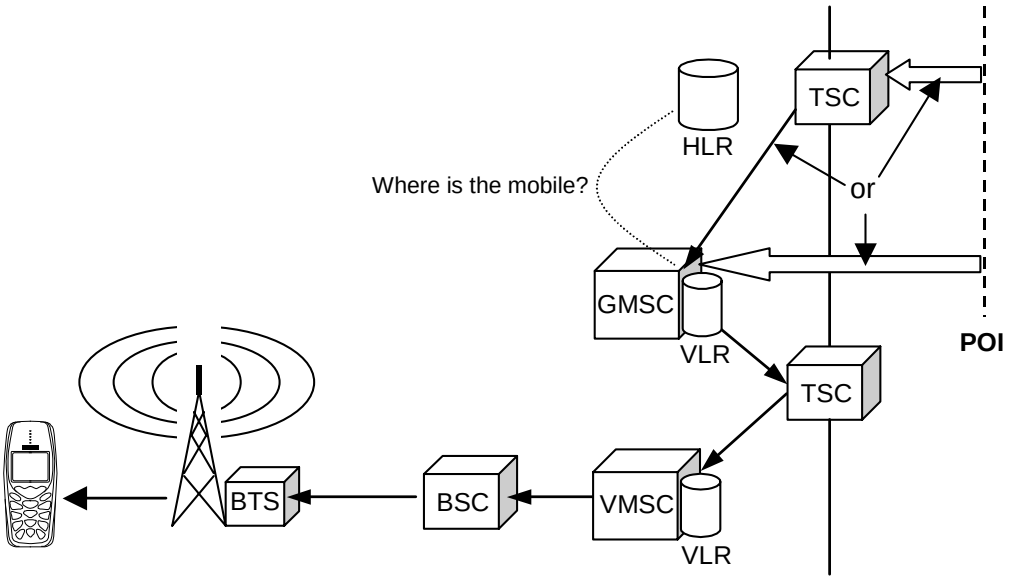
3.51. All outgoing mobile calls follow this procedure, whether to a fixed network or to the same or another mobile network, except that calls to the same network are not passed to the POI, but are passed to the appropriate VMSC for the mobile being called.

Routing of calls to a mobile from another network

3.52. The routing of a call to a mobile from another network is illustrated in Figure 3.6. Any incoming call from a fixed or another mobile network will pass from the originating network to the nearest (or otherwise predetermined) POI to the originating call as the originating network has no knowledge of the location of the mobile and so cannot pass the call over at a point that is geographically nearer to the actual mobile subscriber. The call is then passed to an MSC, either directly or via the transit layer, dependent on whether the MSCs are directly interconnected to the POI. The MSC to which the call is first passed is known as the GMSC, which will, provided the mobile is switched on and in an area of coverage, identify where the mobile is, and thus establish the identity of the VMSC, by an enquiry to the appropriate HLR. In a substantial number of cases the VMSC will be different from the GMSC. If the VMSC and GMSC are different, the call is passed to the VMSC via the transit layer. If the GMSC and VMSC are the same, the call is dealt with internally by the same MSC.

Routing of a call to a mobile from another network

Figure 3.6



3.53 The VMSC then instructs the appropriate BSC and BTS to page the mobile, i.e. to broadcast a message telling the mobile that there is a call for it. Once the VMSC receives a response to the page from the mobile, a radio channel to the mobile is established and the telephone rings. Once the user answers the telephone, a voice (or date) channel is established and the call commences."

240. However, this case is concerned with the RBS backhaul circuit. According to the Competition Commission Report, the RBS backhaul circuit does not involve a point of interconnection. In terms of figures 3.3, 3.5 and 3.6 the RBS backhaul circuit is the link between the BTS (RBS) and BSC shown on the left of the diagrams, on the *opposite side* from the point of interconnection as described by the Competition Commission.

241. In our view, the Director's argument that the RBS backhaul circuit constitutes or involves "interconnection", at least when supplied by BT, is not as a matter of description supported by the Competition Commission Report. We note in particular that the Competition Commission's description places the "point of interconnection" at a quite different place in the system from that indicated by the word "interconnect" in the diagram shown in the Director's statement of reasons cited at paragraph 63 above.

242. To the extent that the Director argues that the RBS backhaul circuit nonetheless enables Vodafone subscribers to communicate with the MTX, and thus potentially to reach subscribers on other networks via a point of connection at or beyond the MTX, thereby contributing to interoperability, we do not think that argument brings the RBS backhaul

circuit within the meaning of "interconnection" for the purpose of securing "end to end" interoperability, for two main reasons.

243. First, as we have already said, the RBS backhaul circuit does not in itself give rise to any interoperability between Vodafone subscribers and subscribers on other networks: for that to occur, a point of interconnection is needed at or beyond the MTX: see paragraphs 100,101, 230 and 231 above.

244. Secondly, it seems to us that the contribution of the RBS backhaul circuit to interoperability between networks is in any event too remote to be seriously described as giving rise to "interconnection" as conventionally understood. As BT submits, one would not describe the function of a spark plug as the conveyance of passengers from A to B: the function of the spark plug is to start the car. So too here, in our view the essential function of the RBS backhaul circuit is to complete the Vodafone network. Only when that network is functioning, can one contemplate the further stage of interconnecting that network with another functioning network.

RBS backhaul as part of Vodafone's network

245. In the light of the agreed facts, it does not seem to us incorrect to describe the RBS backhaul circuit, albeit a service supplied by BT, in a general sense as a "component" of, or link in, Vodafone's network, as BT submits, rather than a means of connecting Vodafone's network to BT's network for the purpose of "end to end" interoperability.

246. Thus, in his statement of reasons the Director himself says, for example, "The provision of RBS backhaul circuits is crucial to *the operation of Vodafone's network*" (paragraph S.8), "A mobile operator has two main options to link its radio base station *to the rest of its network*" (paragraph 2.39); "mobile operators have been allowed to choose whether to build *their networks* themselves or to buy RBS backhaul circuits" (paragraph 2.44); "mobile operators have built out *their networks* very differently, with some operators having chosen to significantly self provide" (paragraph 2.48); "the links between Vodafone's RBS and MTX … are *an essential component of Vodafone's network*" (paragraph 4.5); "the Director believes that his proposal will enable Vodafone to operate *their network* more efficiently" (paragraph 4.10). [emphasis in italics added by Tribunal]

247. In our view the thrust and terms of the Director's statement of reasons is that he is considering the supply of RBS backhaul as the provision of an essential part of Vodafone's network, rather than enabling a Vodafone subscriber to communicate with a BT subscriber i.e. interconnecting Vodafone's networks with other networks for the purpose of "end to end" interoperability.

248. Our conclusion therefore at this stage of the analysis is that, subject to the arguments on construction which we deal with below, the Director's approach does not seem to accord with the general scheme and purpose of the Directive.

249. In particular, in our view it is very difficult to say that the supply of an RBS backhaul circuit is "in order to provide end to end interoperability of services for Community users", or that such a circuit falls within the scope of the Member States obligation set out in Article 3(2), which applies "to the extent necessary to ensure interoperability of these services". An RBS backhaul circuit does not secure interoperability, since it does not enable Vodafone subscribers to communicate with customers or services on any other network.

250. In our view RBS backhaul is essentially concerned with *intraoperability* within a single network (i.e. Vodafone's), and not the *interoperability* between networks which the Directive contemplates.

251. That interpretation is in our view fully in line with all the background documents produced to the Tribunal by the parties already referred to above. In particular that was in our view plainly how the United Kingdom authorities saw the scope of the Directive both before and after its implementation. According to the documents cited above, the aim of the Directive was the same as under the previous United Kingdom system and involved no "step change" (paragraphs 189 to 201 above). We think it notable that, despite the fact that the Interconnection Directive had been in force for six years, no document emanating from the European Commission has been produced which supports the Director's view of the scope of "interconnection".

Transmission by Vodafone of Vodafone's signal between the RBS and the MTX using BT capacity

252. Nonetheless, it appears from the agreed statement of facts that the RBS backhaul circuit, although completing the Vodafone network, does so in a way which involves the signals from the Vodafone RBS to the Vodafone MTX being transmitted by Vodafone across or through a part of the BT network dedicated to the transmission of those Vodafone signals. The Director submits that while this is not necessarily "interconnection" in the conventional sense, it is nonetheless "interconnection" for the purposes of the Interconnection Directive. To analyse those submissions we need first to put the matter once more into its particular factual context.

253. Without the RBS backhaul circuit, whether supplied by cable or by microwave, the RBS cannot transmit signals to the MTX and is in effect useless from the point of view of the Vodafone subscribers in the vicinity of that RBS. Similarly the MTX has no means of transmitting signals to the RBS.

254. However, it appears from the agreed statement of facts at paragraphs 91 to 98 above that instead of, for example, BT, or Vodafone itself, or some other contractor, simply laying a dedicated cable between the RBS and the MTX, BT in effect allocates to Vodafone capacity on BT's transmission system by means of which the signals sent by the RBS (not by BT) are carried to the MTX along a route through BT's transmission capacity determined by BT. That route typically goes from the RBS to the nearest BT LSE, across the BT system to the LSE nearest the MTX, and thence to the MTX (strictly the BSC) as described in the agreed facts (paragraphs 94 to 98 above).

255. Although on the central part of that journey the Director's diagram in his statement of reasons shows the route passing through a "BT cloud" (paragraph 63 above), BT submits, and we accept, that a better analogy is that the RBS signals are effectively being sent through the equivalent of a "pipe", using BT capacity reserved to Vodafone. With modern technology that capacity takes the form of time slots, conveyed using Time Division Multiplexing across successive links in the BT transmission system. Although the transmission capacity so supplied is, in the technical terminology of the industry "transparent", meaning that the data transmitted from the RBS is received at the MTX as

sent, without any manipulation or switching en route, in layman's terms the capacity is from BT's point of view "opaque" in that BT does not know what data is being sent or indeed whether any data is being sent at all.

256. It nonetheless remains the case that, at least in the central part of the "pipe", between the two BT LSEs, the signal passes or may pass through several successive BT transmission systems which are also used for the transmission and conveyance of signals from other sources, e.g. BT customers, albeit that the allocated time slots (measured incidentally, as we understand it, as infinitesimal parts of a second) remain dedicated to Vodafone. Similarly, on the last stage of its journey, when the RBS signal passes from the second BT LSE to the Vodafone MTX, that final link may also be carrying other BT traffic destined for that MTX, albeit that the RBS signal is being conveyed to the MTX in a separate "pipe" through the BT transmission system.

257. It seems to us that the essential nature of the RBS backhaul circuit as described above is that it is a means of reserving capacity on BT's transmission systems for Vodafone's exclusive use, the service supplied by BT being in effect the provision of such capacity through time slot multiplexing. We did not detect any real disagreement on that point between the parties.

258. BT argues, mainly on the basis of Recital 4, that an operating network can consist of transmission capacity leased from another network, and that it cannot, therefore, be the case that any leasing of capacity is, by definition, "interconnection", and has to be undertaken on cost-orientated terms. This argument, it seems to us, is a version of BT's argument, which we already accepted at paragraph 245 to 247 above, to the effect that the supply of an RBS backhaul circuit is, in substance, the supply of an element to complete Vodafone's network, rather than the supply of a means whereby the subscribers to Vodafone's network can communicate with the subscribers to BT's network. To that extent, we are minded to accept BT's submission that the supply by one operator of another operator's capacity would not, without more, normally involve interconnection within the meaning of the Directive, unless it involved a "leased line", which is discussed in section B below. The opposite view would, as far as we can see, potentially involve BT in having to build other operators' networks at cost-orientated prices which is a consequence we find difficult to derive from the wording of Interconnection Directive.

Is the Directive concerned not just with interconnection in the sense of interoperability between end users, but also with competition more generally?

259. However, the Director and Vodafone, basing themselves largely on Article 1 and certain other provisions (e.g. of Article 9) argue that the interoperability of services is not the only purpose of the Directive, and that the Directive embraces the general objective of stimulating competition, which justifies the wider meaning of "interconnection" contended for by the Director.

260. There is at first sight some textual support in the Directive for this argument, for example Article 1 refers to "interconnection and *in particular* interoperability", and Article 9 refers e.g. to "the need to stimulate a competitive market" (Article 9(1)) "to ensure effective competition and/or the interoperability of services for users" (Article 9(3)) and "the desirability of stimulating market offerings". However, looking at the scope of the Directive as a whole, we are not persuaded that the Directive has, as a self standing objective, the encouragement of competition by means of some form of "interconnection" other than interconnection in the sense of interoperability between networks.

261. We accept that the Directive is, in a general sense, intended to stimulate competition between networks, for the benefit of end users, but in our view the means of doing so is through the framework for interconnection between networks which the Directive sets out. Interconnection as conventionally understood in itself stimulates competition, because it enables smaller networks to compete with larger networks, in particular by offering their subscribers access to subscribers on other networks, and by offering services to users that the smaller networks would not be able to provide without interconnection (see paragraphs 191, 192 and 197 above). In these circumstances it does not seem to us that we can give a wider meaning to the term "interconnection" merely because, as the Director argues, the supply of RBS backhaul circuits on cost orientated terms may stimulate competition by enabling Vodafone to complete or expand its existing network. Apart from the fact that the argument is disputed by BT, who submit that that Direction is more likely to distort competition than promote it, it seems to us that the allegedly pro-competitive consequences of the Direction cannot, in themselves, entitle us to give "interconnection" a wider meaning than that to be derived from the true scope and aim of the Directive. In our view, that scope

and aim is interconnection in the sense of interoperability, and we do not find the sporadic textual references to competition relied on by the Director sufficient to support a different view.

The textual arguments

262. The Director, however, advances a skilful argument of construction, based on the definitions of Article 2(1) of the Directive. The building blocks of the Director's arguments are that there is "physical and logical linking"; there are "two telecommunications networks" between "defined termination points", namely the RBS and the MTX; Vodafone is a "user", who is entitled to the "publicly available" service consisting of the RBS backhaul circuit to enable "users" (i.e. end users) of an organisation (Vodafone) to communicate with users of "the same" organisation (i.e. other Vodafone users) or with other organisations, within the meaning of the definitions set out in Article 2(1) of the Directive. For convenience we reproduce Article 2(1) again:-

> "(a) 'interconnection' means the physical and logical linking of telecommunications networks used by the same or a different organization in order to allow the users of one organization to communicate with users of the same or another organization, or to access services provided by another organization. Services may be provided by the parties involved or other parties who have access to the network;
>
> (b) 'public telecommunications network' means a telecommunications network used, in whole or in part, for the provision of publicly available telecommunications services;
>
> (c) 'telecommunications network' means transmission systems and, where applicable, switching equipment and other resources which permit the conveyance of signals between defined termination points by wire, by radio, by optical or by other electromagnetic means;
>
> (d) 'telecommunications services' means services whose provision consists wholly or partly in the transmission and routing of signals on telecommunications networks, with the exception of radio and television broadcasting;
>
> (e) 'users' means individuals, including consumers or organizations, using or requesting publicly available telecommunications services;"

263. Our general view of the Director's textual argument is that, if one takes each component part of that argument literally, some support can be found within the Directive for the argument the Director advances. On the other hand in our view BT's textual arguments are more compelling. In addition, in our view, the scope and purpose of the Directive, as analysed above, strongly support the textual arguments advanced by BT.

Physical and logical linking

264. Physical linking is not in dispute. It appears to be common ground that the "logical" linking involved in an RBS backhaul circuit is much less than that involved at a point of interconnection of the kind shown in the Competition Commission diagrams set out above. Interconnection, in the sense of interoperability between networks, involves logical linking which permits the dialled digits from one network to be understood by the interconnecting network, so that the call may be conveyed to the end user. Logical linking of that kind is not present in the case of an RBS backhaul circuit where, as we understand it, only a minimal amount of linking is necessary to enable the Vodafone signal to pass along "the pipe" from the RBS to the MTX. In those circumstances, despite the Director's arguments at paragraph 160 to 161 above, we see force in BT's arguments at paragraphs 122 to 123 above that there is insufficient "logical linking" to give rise to interconnection in the sense intended by the Directive. However, on the view we have formed we do not need to determine whether there is sufficient "physical and logical linking" to satisfy the requirements of Article 2(1)(a), and we do not decide this case on that ground.

Two telecommunications networks

265. The Director, at paragraph 3.9 of his statement of reasons, treats the two networks in question as "Vodafone's network" and "BT's network (i.e. the product requested by Vodafone)". That is open to the interpretation that what the Director meant by "BT's network" was in fact the RBS backhaul circuit itself – e.g. BT's Netstream Longline 16 – that being "the product requested by Vodafone". That is supported by the earlier sentence in paragraph 3.9 which states that "the product requested by Vodafone" is a "transmission system".

266. It was conceded in argument that it is not the RBS backhaul circuit itself that constitutes the "BT network" in question, contrary to what is apparently suggested in the statement of reasons. That concession seems to us to have been entirely correct. It is very hard to see how the product (e.g. Netstream Longline 16) which is, on the Director's case, to be supplied pursuant to the obligation to interconnect could itself be a relevant "network", since the obligation to interconnect cannot arise unless there are *already* two networks which are then to be interconnected by an interconnection service of the kind referred to in Article 8(2).

267. However, the Director's central argument before the Tribunal is that, for the purposes of the definition of interconnection, the second "telecommunications network" comprises "the transmission systems and other resources used by BT for the conveyance of signals between Vodafone's RBS and Vodafone's MTX". The Director does not rely, as we understand it, on BT's network as a whole. The Director relies essentially on the fact that once the RBS backhaul circuit is supplied, that circuit conveys signals across various BT transmission systems between Vodafone's RBS and Vodafone's MTX.

268. According to the Director, as we understand it, it is the facilities used by BT to provide the service of transmitting Vodafone's signals via the RBS backhaul circuit – i.e. the physical transmission systems – which constitute the second "telecommunications network" for the purposes of the Directive (see transcript, Day 2, pp 28-29 and 31).

269. We have struggled somewhat with the distinction drawn by the Director between "the product" and "the facilities used to provide the product" since, as it seems to us, "the product" (the RBS backhaul circuit) consists essentially of the use of the facilities in question. Moreover, that facility is essentially the use by Vodafone of transmission capacity dedicated by BT to complete the link between the RBS and the MTX. As we have already said, we find it difficult to say that the dedication of transmission capacity in itself gives rise to a separate "telecommunications network" for the purposes of the Directive. As BT also points out, if they had merely dug a trench to lay a dedicated cable between the RBS and the MTX there would be no sense in which any 'interconnection' had taken place. We see force in BT's point that the result should not be different because, with modern technology, dedicated capacity on BT's existing system can be provided instead. Perhaps another way of looking at the matter is that "interconnection", as we understand it, cannot

be achieved unilaterally: to achieve interoperability at least two networks must be involved, connecting their respective customers. But here, as we understand it, the RBS backhaul link can, and frequently is, self provided by the mobile operator itself, acting unilaterally.

270. For these reasons, we find it hard to accept that the concept of a "network", in respect of which interconnection obligations are imposed under the Interconnection Directive, extends to a circuit supplied by BT which constitutes, essentially, transmission capacity which is reserved to Vodafone for the transmission of signals through Vodafone's network, and which does not enable any Vodafone subscriber to call any BT subscriber.

271. In addition, as we have already pointed out, the "networks" with regard to which interconnection rights and obligations arise by virtue of Articles 3(2), 4, 6 and 7 of the Directive are the public telecommunications networks referred to in Annex I, namely the fixed public telephone networks and public mobile telephone networks there referred to. Under paragraph 1 of Annex II, those rights and obligations arise as regards "organisations which provide fixed and/or mobile public switched telecommunications networks and/or publicly available telecommunications services, and in so doing control the means of access to one or more network termination points identified by one or more unique numbers in the national plan".

272. Since the supply of the RBS backhaul is not intended, in any realistic sense, to enable a subscriber of Vodafone to call a subscriber of BT, or a subscriber on another fixed or mobile telephone network, or access any services supplied by another network, it seems to us artificial to regard the transmission resources used by BT to convey Vodafone's signals between, for example, Vodafone's RBS at Heather Row just outside Basingstoke and Vodafone's MTX at Basingstoke as itself a "relevant network" for the purposes of the Interconnection Directive. Moreover, it appears from Annex II, paragraph 1, that the relevant rights and obligations arise in respect of telecommunications networks which control the means of access to network termination points which in turn control access to the end user's telephone number. That element is, it seems to us, lacking here since the BT resources used for the transmission of the Vodafone signals do not control the access to any end user's telephone number.

273. In our view the true analysis is that BT has supplied Vodafone with transmission capacity in order to complete its (Vodafone's) network. As recital 4 to the Directive makes clear, a "network" may consist of capacity that is not owned by the network operator. For the reasons already given, in our view the reality of the transaction is much closer to the supply, to Vodafone by BT, of a means of completing Vodafone's network than anything that is intended to enable Vodafone subscribers to communicate with subscribers on other networks. That is also in accordance with the general tenor of the Director's statement of reasons.

Defined termination points

274. The foregoing analysis seems to us reinforced by the fact that, under Article 2(1)(a) of the Directive, the relevant network must permit the conveyance of signals between "defined termination points".

275. The phrase "defined termination point" is not defined in the Directive, but the phrase "network termination points" is used frequently in Annexes I and II.

276. Thus the interconnection obligations in question are imposed, by virtue of Annex I, on the fixed public telephone network, which is defined as "supporting the transfer between network termination points at fixed locations of speech …" and refers to "access to the end user's network termination point" as being via a telephone number in the national numbering plan. Similarly the interconnection obligation placed on such a network relates to the fixed public telephone service, defined as "the provision to end users at fixed locations of a service for the originating and receiving of national and international calls …", access to "the end user" again being via a number in the national numbering plan. Similarly, as regards public mobile telephony networks, those are defined as networks where "the network termination points are not at fixed locations" (i.e. the termination point is at the mobile handset, rather than at the "socket in the wall" as is normally the case with the fixed network). Again the public mobile telephony services in question are defined as the establishment of radio communications to "one mobile user", indicating again that it is the end user that is in contemplation as the "network termination point".

277. Similarly, Annex II provides that the interconnection obligations in question are imposed on organisations which provide "fixed and/or mobile public switched telecommunications networks and/or publicly available telecommunications services" *and in so doing* control the means of access to one or more "network termination points" identified by one or more unique numbers in the national numbering plan. The notes state:

> "Control of the means of access to a network termination point means the ability to control the telecommunications services available to the end-user at that network termination point and/or the ability to deny other service providers access to the end-user at the network termination point. Control of the means of access may entail ownership or control of the physical link to the end-user (whether wire or wireless), and/or the ability to change or withdraw the national number or numbers needed to access an end-user's network termination point."

278. In that context, it is clear to us that "network termination point" as used in Annexes I and II refers to a point at which the network terminates (or, to put it round the other way, originates) at the end user. We see considerable force in BT's argument that the "defined termination points" referred to in the definition of a "telecommunications network" in Article 2(1)(c) are the same as the end user network termination points referred to in Annexes I and II.

279. The Director argues that "defined termination points" in Article 2(1)(a) are capable of including points where the BT "network" in question terminates, rather than a termination point at the end user. In this sense, says the Director, both the RBS and the MTX are "defined termination points" for the purposes of the definition.

280. The Director points out that the definition of "Network Termination Point" at Annex A to BT's Licence includes points at which "Network Connecting Apparatus" is connected to another system, albeit that that definition of "Network Termination Point" also includes, as we understand it, end user termination points.

281. The Director also refers to Article 2 of the ONP Framework Directive as amended, the definitions of which apply to the Interconnection Directive, under Article 2(2) of the latter, "where relevant". Article 2(5) of the ONP Framework Directive defines "network termination point" as "the physical point at which a user is provided with access to a public telecommunications network. The locations of network termination points shall be defined

by the national regulatory authority and shall represent a boundary, for regulatory purposes, of the public telecommunications network;" Article 2(2) of that Directive has the same definition of "telecommunications network" as Article 2(1)(c) of the Interconnection Directive and refers to "defined termination points". Thus, says the Director, the "defined termination points" must be those defined by the national regulatory authority, which in this case would include the connections made at the RBS and MTX by BT's "Network Connecting Apparatus" as defined by Annex A to BT's Licence. The Director also refers to Article 16 of the Voice Telephony Directive, which apparently refers to requests from certain organisations providing telecommunications services for access to the fixed public telephone service at "network termination points" other than termination points at the end user. Hence, argues the Director, "network termination points" are not limited to the end user. That is also implicit in recital 6 and Article 4(2) of the Interconnection Directive which refers to network access at "points" other than "the network termination points" offered to the majority of end users.

282. We are prepared to accept that, used in the abstract, the words "network termination point" as used in this industry may, depending on the context, sometimes refer to a point at which the relevant network terminates other than at an end user, for example at a point which the Competition Commission describes in its Report as an established point of interconnection (paragraphs 233 to 239 above). Although Annex A of BT's Licence seems to us to be of limited relevance because it pre-dates the Interconnection Directive, we also accept that a network termination point of this kind may delimit the boundary of the relevant network for regulatory purposes. On the other hand, as we understand it the regulatory boundary will most often coincide with end user network termination points, since the regulatory system does not normally extend beyond the end user's "plug in the wall". Moreover, in the documents we have seen the phrase "network termination point" or "NTP" very frequently refers to a termination point at the end user (see e.g. the citation in paragraph 191 above, and the diagrams regarding leased lines in section B below).

283. In these circumstances, the question for us is the meaning to be attached to "defined termination points" in Article 2(1)(a) and (c) of the Interconnection Directive, the "defined termination points" suggested by the Director being Vodafone's RBS and MTX. Those points are, however, points at which no end user can either originate or terminate a telephone call.

284. The consequence of the Director's argument is, therefore, that interconnection obligations under the Directive can attach to "a network" (here the BT transmission systems carrying Vodafone's messages between the RBS and MTX) which has no end user termination points at all. We do not think that such a so called "network" is within the contemplation of the Directive as being one to which interconnection rights and obligations could apply, at least so far as the organisations referred to in paragraph 1 of Annex II are concerned.

285. In our view, for the reasons already explained, the Interconnection Directive is concerned with the linking of public telecommunications networks so that *end users* on different networks may communicate with each other. The "networks" with which the Interconnection Directive is concerned are the public fixed or mobile networks as defined. The Director's concept of a "network" which does not terminate at any end user, and does not terminate at or contain any point through which the subscriber to one network may communicate with another network does not, in our view, fall within the definition of any of the networks within Parts 1 and 3 of Annex I to the Directive, nor fulfil the purpose of the Directive.

286. In our opinion such a "network", is either not a "network" at all, or is not "a network" falling within the scope of the Interconnection Directive. Apart from the fact that the Director's "network" does not seem to fall within the definitions in Parts 1 and 3 of Annex I, the scope and aim of the Directive as we see it is to secure end to end interoperability between end users on different networks. To qualify as a "network" which has the right (or obligation) to interconnect it seems to us that such a network must have at least some termination points at end users, so that the end users at those termination points may communicate with end users at termination points on other networks. Otherwise, the purpose of the Directive as we see it cannot be achieved.

287. In the present case, neither Vodafone's RBSs nor Vodafone's MTXs are termination points at the end user, nor are they in themselves points of interconnection in the sense that a Vodafone subscriber may by means of such points communicate with a subscriber on another network. Moreover, once the RBS backhaul circuit has been installed, thus connecting the RBS and the MTX, we find it difficult to see that the RBS, for example, is in any *relevant* sense a "termination point" of the Vodafone network, since it is simply a

staging post *within* the Vodafone network transmitting and receiving calls made by or destined for the Vodafone end users in its vicinity.

Vodafone as a "user"

288. The Director submits that Vodafone is a "user" for the purposes of Article 2(1)(e) of the Interconnection Directive which, like Article 2(1) of the ONP Framework Directive, as amended, defines "users" as "individuals, including consumers, or organisations using or requesting publicly available telecommunications services". The Director refers to Recital 5, which refers to "any network or service which is made publicly available to third parties", to Article 2(2) of the Voice Telephony Directive which draws a distinction between "user" and "consumer", and to the reference to "user" in the definition of "network termination point" in Article 2(5) of the ONP Framework Directive, as amended, already discussed above.

289. In our view, the predominant meaning of "user" throughout the Directive is "end user", whether that end user be a consumer, a business, or some other undertaking falling within the concept of "an organisation". Thus, when recital 2 refers to the need "to provide end-to-end interoperability for all Community users", the natural meaning of "Community users" is in our view the users situated at "the ends" in question. In particular, we understood it to be conceded by the Director that the reference to the "users" of one organisation communicating with "users" of the same or another organisation, in the definition of "interconnection" in Article 2(1)(a) of the Directive, is indeed a reference to "end users".

290. Similarly the reference in Article 3(1) to ensuring interconnection "to the extent necessary to ensure interoperability of these services for all users within the Community" naturally refers, in our view, to "end users". The same is the case, in our view, as regards the various references in Article 9 to "users", such as "end to end communications for users", "the user interest" and "providing users with a wide range of telecommunications services at a national and at a Community level".

291. For the reasons already given in relation to our discussion of "defined termination points", the "public telecommunications networks" defined in Annex I are defined as networks

serving end users. Similarly, the "publicly available telecommunications services" there defined are services to end users. Thus in Part 1 "the fixed public telephone service" means "the provision to end users" of the services there set out; and in Part 3 a "public mobile telephone service" is a telephony service "to one mobile user". Finally in Annex II it is plain that the relevant organisations which have rights and obligations regarding interconnection under Article 4 are those which control access to "the end user".

292. In those circumstances, bearing in mind the general scope and aim of the Directive already discussed, it seems to us that, in Article 2(1)(e) of the Directive, the phrase "users means … organisations using or requesting publicly available telecommunications services" naturally refers to end-user organisations using or requesting the publicly available telecommunications services referred to in Annex I, namely the fixed public telephone service or a public mobile telephone service as there defined.

293. In those circumstances we again find it artificial to interpret Article 2(1)(e) as including Vodafone as a "user" when Vodafone is requesting the supply by BT of an RBS backhaul circuit in order to complete Vodafone's network, rather than to secure end-user to end-user interoperability between networks.

294. It is true that, again, there are sporadic references in the Directive which could support the Director's view, for example recital 5 which refers to "any network or service that is made publicly available for use by third parties", and the sentence in Article 9 (1) which refers to "the interests of all users". On the other hand, the only example cited to us in which another network operator falling within Annexes I and II may also be a "user", is that of an operator who requires a "leased line" for onward supply to an end user.

295. We do not, however, find the Director's arguments persuasive. The leased line example we deal with in detail in Section B below. Recital 5 and Article 9(1) are not inconsistent with the view we take, and we do not think there is sufficient textual support to extend the scope of the Directive beyond what we consider its proper ambit, namely interconnection for the purpose of ensuring interoperability between end users of different networks. In the present case, Vodafone is neither using nor requesting the publicly available services referred to in Annex I of the Directive. The RBS backhaul circuit is not intended to secure interoperability between end users of different networks. Unlike the case with a "leased

line" of the kind covered by the PPC Directions, discussed in Section B below, the RBS backhaul circuit does not connect with any end user, nor does it in itself secure any interoperability between networks.

296. We also find it difficult to accept that an RBS backhaul circuit is a "publicly available" telecommunications service within the meaning of the Directive, since that expression appears to refer to the "publicly available telecommunications services" defined in Annex I. Looking at the scheme and purpose of the Directive, it seems to us that the "publicly available telecommunications services" referred to in Article 2(1)(e) are the calls, directory enquiries, engaged tone, etc, referred to in Annex I, rather than the underlying infrastructure by means of which those publicly available services are interconnected. Article 2(2) of the Voice Telephony Directive does not seem to us to advance the matter, quite apart from the fact that that is a different Directive dealing with other issues mainly affecting the fixed public telephone network.

To allow the users of one organisation to communicate with users of the same or another organisation

297. Finally, the Director argues that the reference to users (this time in the sense of "end users") of "the same" organisation in Article 2(1)(a) of the Directive indicates that "interconnection" which enables one Vodafone user to communicate with another Vodafone user (which is the purpose of the RBS backhaul circuit) is within the contemplation of the Directive.

298. Again, for the reasons already given, we see the Directive as a whole, and Article 2(1)(a) of the Directive in particular, as dealing with interconnection between networks (plural) for the purpose of enabling end users (i.e. subscribers) of one network to communicate with end-users of other networks or access services supplied by other networks. RBS backhaul does not fulfil that function. As to the reference to "the same" organisation, BT points out that, on the ground, the "same" organisation (e.g. a cable company) may have more than one geographical network and may require "interconnection" to link the end users of its different networks see e.g. paragraph 27 of Mr Butterworth's second witness statement which was not challenged on the facts by the Director. Nor do we exclude the possibility of one mobile operator having different networks in different Member States. In the

absence of any compelling reason going the other way, that seems to us a sufficient explanation for the presence of the words "the same" in Article 2(1)(a). In the light, in particular, of the cumulative effect of the considerations we have already set out, we do not see the use of the word "same" in Article 2(1)(a) as sufficiently compelling support for the Director's argument.

299. For all these reasons, we do not accept the textual arguments of construction put forward to the Director, notwithstanding the clear and careful way in which they were presented.

Does "Transit Interconnection" support the Director's case?

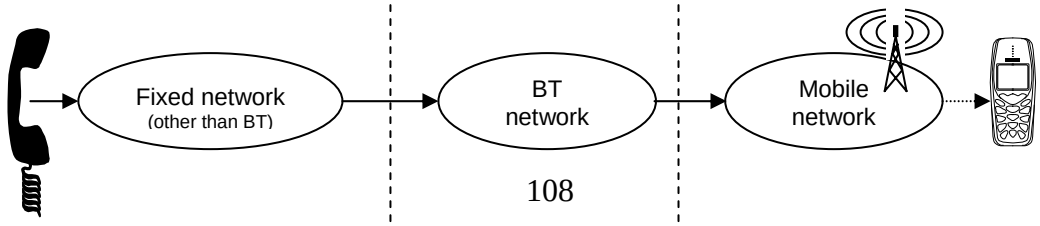
300. We are unpersuaded by the analogy advanced by Vodafone and the Director between RBS backhaul and what is known as "transit interconnection". While RBS backhaul does not involve the customer of one network being able to communicate with another network, save in a very remote and artificial sense, which we reject, transit interconnection as we understand it does involve a customer of one network (A) being able to communicate with the customer of another network (C) by an intermediate interconnection between networks A and B, and network A and C.

301. This is explained in the Competition Commission Report at paragraph 3.14, as follows:

> "3.14 If no direct interconnect is in place (either because no interconnection agreement has been reached, because the two networks do not have sufficient traffic to merit a permanent interconnection, or because it is commercially more attractive to use alternative means) or existing interconnections are all busy or are in the wrong physical location, the traffic will pass from the source network to BT (or another licensed operator with the appropriate interconnection such as, for example, Cable and Wireless) who will then pass it on to the destination network. BT as the incumbent operator is obliged to offer this service but levies a charge for 'transiting' the call (as do other suitably interconnected operators). This is illustrated in Figure 3.2".

FIGURE 3.2

Illustration of interconnection via BT transit



302. The description given by the Competition Commission seems to us to be well within the scope of interconnection in the sense of interoperability, since the calls transmitted or received are destined to pass from the customer of one network to the customer of another network, through a point of interconnection. There is "end to end" or "any to any" interoperability between the customers of network A and network C. As we understand it, such calls between network A and network C are routed by BT on a call by call basis, the call being switched on the basis of information (as to the dialled digits etc) contained within the signal itself. It is BT's responsibility to deliver the call between the established points of interconnection with network A and network C respectively (see Mr Butterworth's second witness statement at paragraphs 23 to 27, which was not challenged on the facts).

303. With RBS backhaul, by contrast, the RBS backhaul circuit is not "interconnecting" between networks in that sense, but merely enabling a signal to pass passively between two parts of one network, namely Vodafone's. With RBS backhaul, BT takes no responsibility for the signal and does not know what the call is, where it is going, or even whether there is one. The signal is merely conveyed between the RBS and the MTX. It only reaches an established point of interconnection beyond the MTX if it is switched by Vodafone *after* it has left the RBS backhaul circuit. Those circumstances, it seems to us, distinguish the RBS backhaul circuit from the "transit interconnection" relied on by the Director. Indeed, if RBS backhaul were the same as "transit interconnection" it would already be covered by BT's existing interconnection agreements, but it is plainly not so covered, otherwise the Direction would not have been necessary.

The intervener's arguments

304. In dealing with the Director's arguments it seems to us that we have, in effect, already dealt with most of Vodafone's arguments, but we briefly mention four points. First, we do not think that Vodafone's references to the recitals, and to Articles 7, 8 and 9 of the Directive, are such as to undermine the conclusion to which we have already come. Secondly, we do not accept that the reference to "defined termination points" in Article 2(1)(c) is merely there to exclude the broadcasting of signals for general reception: in our view it is an essential component of the networks in question. Radio and television broadcasting is in

any event excluded by the definition of "telecommunications services" in Article 2(1)(d). Thirdly, as regards the organisations referred to in Annex II, we deal with organisations supplying leased lines in section B below. International organisations referred to in paragraph 3 of Annex II are not relied on by the Director, and we have no factual information about any such organisations to know whether or to what extent any such organisations could be relevant for present purposes. Fourthly, although it is true that under Article 4(2) relevant organisations having market power are required only to meet "reasonable" requests for interconnection (see also the factors set out in Article 9(5)) it seems to us that the question whether a request is "reasonable" is a distinct matter which has little bearing on whether the relevant request falls within the Interconnection Directive in the first place.

305. As to O2's argument that we must give the Directive a literal construction, we do not think we can avoid a purposive interpretation of the Directive, nor should an overly literal approach be pushed too far in the light of the Directive's overall purpose.

Conclusion on Section A

306. For these reasons our conclusion at this stage of the analysis is that the supply of RBS backhaul circuits does not fall within the Interconnection Directive.

B. LEASED LINES

Leased lines in the Directive

307. As already indicated at paragraphs 38 to 44 above, a "leased line" is supplied by a network operator to an end user customer to enable the customer to establish, by means of a private circuit, a permanently connected communications link between two different premises dedicated to the customer's exclusive use.

308. In the Interconnection Directive, Part 2 of Annex I includes "leased line services" in these terms:

> "The leased lines service

> "Leased lines means the telecommunications facilities which provide for transparent transmission capacity between network termination points, and which do not include on-demand switching (switching functions which the user can control as part of the leased line provision). They may include systems which allow flexible use of the leased line bandwidth, including certain routing and management capabilities.

309. Annex II of the Directive provides that organisations with rights and obligations to negotiate interconnection with each other, or which have interconnection obligations under Article 4(2), under Article 4(1), include

> "2. Organisations which provide leased lines to users' premises"

310. Recital 4 states that "telecommunications networks that are interconnected … may be based on leased lines …". The only other express reference to "leased lines" in the Directive is at Recital 5:

> "Whereas it is necessary to secure adequate interconnection within the community of certain networks and interoperability of services essential for the social and economic well being of Community users, notably fixed and mobile public telephone networks and services, and leased lines;"

The EC Commission Background Documents

311. In a Working Document dated 31 August 1999 the EC Commission addressed the possibility of making a recommendation on "leased line interconnect pricing". We find that document helpful in placing "leased lines" in their proper context under the Interconnection Directive.

312. Paragraph 2.2.1 of the Working Document explains the provision of leased lines as follows:

> "A leased line provided by an operator between two points is normally made up of three segments (see fig 1).

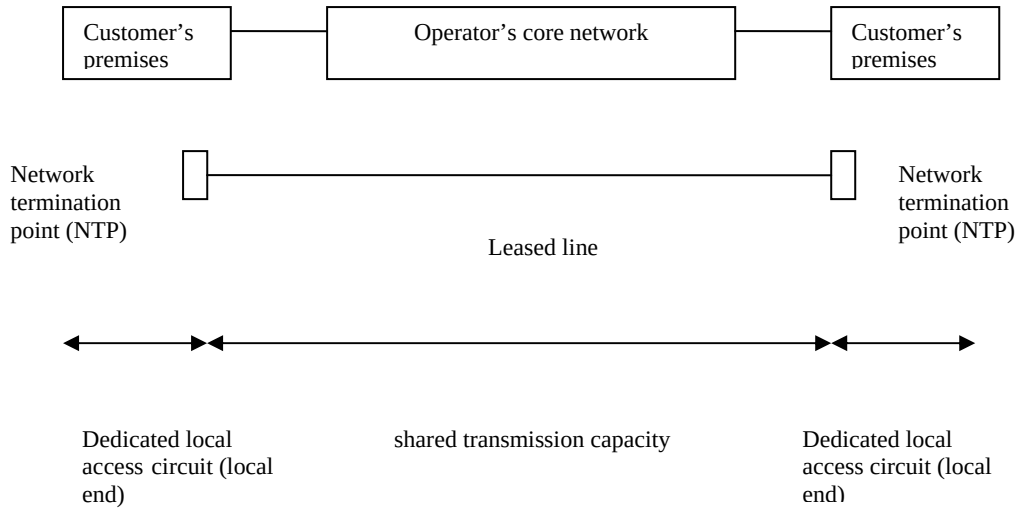


Figure 1. Schematic representation of leased line

[Note by Tribunal: for technical reasons the above differs in minor respects from the original]

Each end of the leased line takes the form of a dedicated local access circuit between the customer's premises and the operator's core network. In the case of low speed leased lines (eg 64kbit/s and below), the local access circuit may be provided using the copper pairs used for normal telephone connections. With the development of xDSL technologies, it has become possible to use these same copper pairs for the provision of 2 Mbit/s leased lines. For higher speed leased lines, dedicated cables (usually fibre) may need to be installed at each end, between the operator's premises and the user's premises. Alternatively radio links may be used in some circumstances (using broadband wireless local loop technologies).

Within the operator's core network, a leased line is one of many transmission channels multiplexed together onto high capacity 'pipes', carried over transmission infrastructure which is shared with switched network traffic."

313. At paragraph 2.2.3 the EC Commission comments on leased line provision in "a multi-operator liberalised market", as follows:-

"In today's multi-operator liberalised environment, new entrants may not be able to provide complete end-to-end leased lines to meet all their customers' needs, and may have to rely on other operators (normally an incumbent) to provide one or both 'local ends'. Where an incumbent provides a short-distance leased line from the premises of an end-user to the premises (or point of presence) of another operator, such circuits may be referred to as 'partial leased circuits'. To the extent that such partial leased circuits represent a wholesale

offering to other operators rather than a retail offering, the tariff structure for partial leased circuits will differ from the retail leased lines tariff structure.

Figure 2 below illustrates this diagrammatically. In terms of the three segments identified in Figure 1, this scenario represents the situation where the new entrant provides the long distance segment and one local end, but relies on the incumbent to provide the other local end.

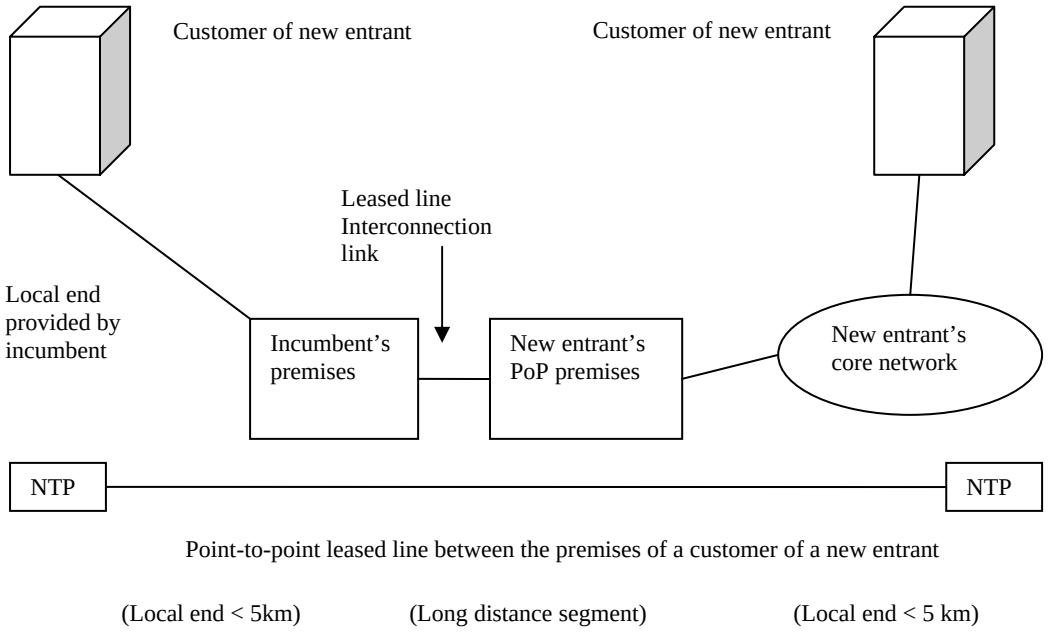


Figure 2 – a new entrant providing a point-to-point leased line between customers' premises, using a partial leased circuit from the incumbent for one local end."

[Note by Tribunal: for technical reasons the above differs in minor respects from the original]

314. At p.7, the Working Document discusses the prices of leased line interconnect local ends, i.e. short distance partial leased circuits which are provided by one operator to another operator to give access to a customer's premises, and which constitute one segment of an end-to-end leased line between customer premises. As regards the obligation of interconnection regarding leased lines, page 8 of the Working Document states:

> "Category b) of Annex II of the Directive refers in particular to organisations which provide leased lines to users' premises. The aim of this provision is to ensure that any leased line provider has the right and the obligation to negotiate with other leased line providers for the 'interconnection' of leased line part circuits, in order to provide customers with a complete end-to-end leased line between their premises. In this way, a leased line provider operating in a limited geographical area is able to offer his customers leased lines that terminate in any part of the Community, whether in the same Member State or in another Member State. This provision for the

'interconnection' of leased lines is quite separate from other provisions in the Interconnection Directive concerning the interconnection of public switched networks.

It should be noted that the term 'user' as defined in the Interconnection Directive (art 2(e)) covers both individuals and organisations; thus for example a network operator providing switched telecommunications services may also be a 'user' of leased lines.

The Interconnection Directive (art 7) requires Member States to ensure that operators having significant market power in the provision of public telephone networks/services, and operators having significant market power in the provision of leased lines, publish a reference interconnection offer (RIO).

In practice, all Member States have nominated their incumbent operators as having significant market power on these two markets, and the same RIO can cover both leased line and switched network interconnection services, (as indicated in the Indicative Reference Interconnection Offer published on the ISPO website).

Operators designated under the Interconnection Directive as having significant market power on the market for leased line services must publish in their RIO terms and conditions for the provision of leased line part circuits. All the types of leased line that are provided to the operators' own customers must be made available for leased line interconnection under transparent, non-discriminatory and cost-orientated conditions, and subject to regulatory approval (Articles 6 and 7 Directive 97/33/EC). The types of leased line interconnection services to be covered in the RIO will normally include the five mandatory types of leased line specified in Annex II of the Leased Lines Directive, and in most cases will also extend to high speed leased lines as specified in Annex III of the Leased Lines Directive.

315. In the EC Commission's *Recommendation on Leased Line Interconnection Pricing in a Liberalised Telecommunications Market*, and the accompanying *Explanatory Memorandum* of 24 November 1999, referred to at paragraphs 40 and 41 above, the Commission stated at paragraphs 6 and 9 of the *Explanatory Memorandum*:

> "6. The Interconnection Directive 97/33/EC imposes on a fixed operator notified as having significant market power the obligation to provide cost-orientated leased line interconnection services to other operators for the purposes of providing end-to-end leased line services in the context of a liberalised environment and internal market principles (Annex 1 Part 2 of Directive 97/33/EC). These services should be provided under transparent, non-discriminatory and cost-orientated conditions, and subject to regulatory approval (Articles 6 and 7 of Directive 97/33/EC).
> …

> 9. In the context of the competitive provision of end-to-end leased lines in a liberalised environment, this Recommendation provides guidance on the pricing of leased lines part circuits to be provided by an incumbent operator to another interconnected operator in accordance with the requirements of the Interconnection Directive 97/33/EC (hereinafter referred to as the Recommendation). These leased line interconnection services are provided by one operator to another *operator* to give access to a customer's premises, and that constitute one segment of an end-to-end leased line between customer premises. This will allow new entrants to provide competitive end-to-end leased line offerings in particular serving small and medium enterprises."

316. The recitals to the Commission's *Recommendation* of 24 November 1999 include the following:

> "Whereas users in the Community require the competitive and cost-efficient provision of leased lines, and access to emerging high-speed transmission data services so that in particular Europe's small and medium sized enterprises can benefit from the opportunities offered by the rapid rise of the Internet and electronic commerce;
> Whereas, in accordance with Article 4(1) and Annex II category 2 of Directive 97/33/EC, organisations providing leased lines to users' premises have a right and an obligation to negotiate leased line interconnection (ie provision and interconnection of leased line part circuits) with other organisations in that category;
>
> Whereas competitive provision of leased lines has begun to emerge since liberalisation of telecommunications infrastructure on 1 January 1996, but is largely confined to long distance high capacity routes; whereas incumbent operators remain the dominant suppliers of short distance leased lines into users' premises, including short distance leased lines used to link the customer's premises to a new entrant's point of presence; whereas particular regulatory scrutiny is appropriate in order to ensure fair access to such short distance leased line part circuits;
>
> Having regard to Article 7 paragraphs (1), (2) and (3) of Directive 97/33/EC by which organisations notified by their national regulatory authorities as having significant market power in the market for leased line services as set out in Annex I Part 2 of the Directive, must publish a reference interconnection offer that includes a description of their interconnection offerings to be provided to all operators defined in Annex II of the Directive, and the associated terms and conditions, including cost-orientated prices for leased line part circuits;"

Conclusions to be drawn from the EC documents

317. It is abundantly clear to us from the foregoing that in 1999 the Commission considered that the legal framework under the Directive envisages that the organisations referred to in

Annex II, paragraph 2 providing leased lines services have rights and obligations to negotiate with other leased line providers "for the interconnection of leased line part circuits, in order to provide customers with a complete end-to-end leased line between their premises" (Working Document, p. 8; see also paragraphs 6 and 9 of the *Explanatory Memorandum*). In other words, operator A has a right to be connected to a network provided by operator B for the purpose of allowing operator A to provide a complete private circuit to his customer, even though that customer is connected to operator B. Such a transaction involves "a part leased line", connecting to an end user.

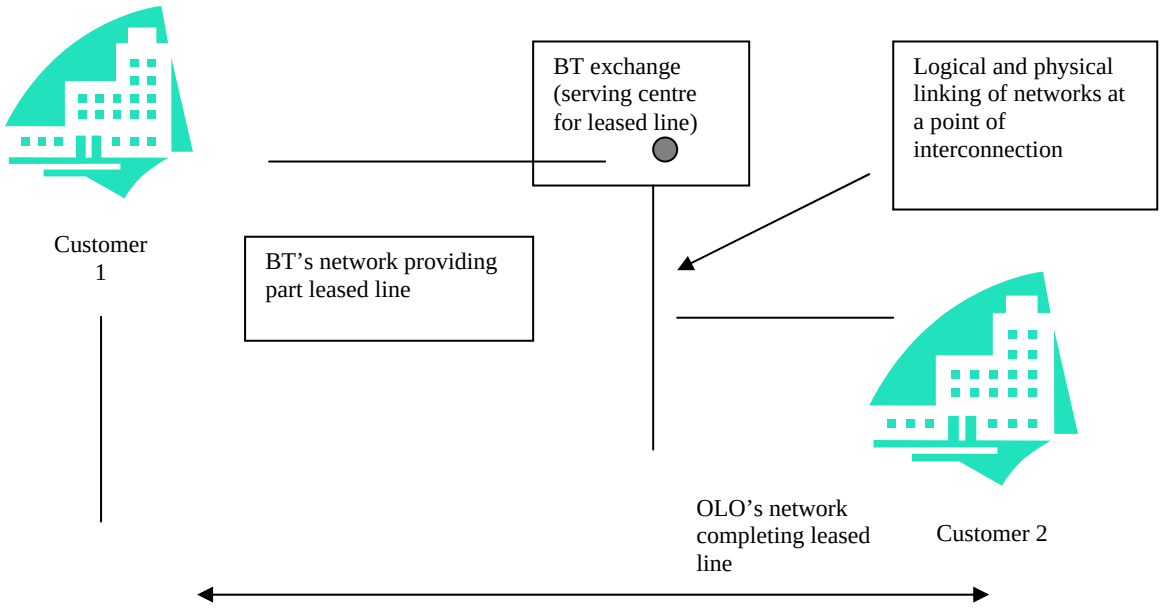
The PPC Directions

318. It seems to us that that was the approach adopted by the Director in the PPC Directions already referred to at paragraphs 38 to 44 above. Those Directions concern the provision by BT of PPCs between a customer's premises and a point of connection between BT's network and another operator's network. That the purpose was, and is, to permit operators other than BT to provide end to end leased lines to third parties is, in our view, abundantly clear from the PPC Directions themselves and from the preparatory documents leading up to them cited at paragraph 38 above. We also note in passing that the definition of a PPC in the PPC Directions of 14 June 2002 and 23 December 2002 includes the sentence "It is therefore the provision of transparent transmission capacity between *a customer's premises* and a point of connection between the two operators' networks." (paragraph 43 above). It is perhaps unfortunate that this sentence was omitted from the definition of a PPC used in a footnote of the contested Direction of 23 June 2003 (paragraph 61 above).

319. Although oversimplified, because it makes no distinction between "terminating" and "trunk segments", and does not reflect the complexities of BT's Synchronous Digital Hierarchy (SDH) and Marconi Synchronous Hierarchy (MSH) technologies, the essential characteristics of an "end to end" leased line seem to us to be illustrated, at least in broad terms, by the diagram at figure D1 of the Director's Consultation Document of August 2000 at p. 56:

> "D3 OFTEL anticipates that OLOs will buy part leased lines from BT in order to supply end users with a complete end to end leased line. Figure D1 illustrates this.

Figure D1: Interconnection of networks to allow an OLO to provide an end to end leased line



[Note by Tribunal: for technical reasons the above differs in minor aspects from the original]

Is an RBS backhaul circuit a "leased line" within the scope of the Directive?

320. In the contested Direction at paragraphs 3.10 and 3.11 the Director found that "the product which Vodafone is requesting" falls within the definition of leased lines services in Annex I, Part 2 of the Directive:

> "because it is transparent transmission capacity between two network termination points; namely the point of connection with BT's applicable system at the Vodafone mobile switch; and the Vodafone radio base station"

321. BT argues that that finding is incorrect in law, since (i) the Vodafone RBS and Vodafone MTX are not "network termination points" for the purposes of the above definition because no end user is involved; and (ii) the obligation to interconnect a "leased line" exists only where one end of the leased line is connected to an end user's premises, the object being to

enable a network operator other than BT to supply an end to end leased line to his customer. According to BT, a leased line is not a "telecommunications network" but a service provided to a customer which is facilitated by interconnection. If and in so far as the leased lines can be characterised as part of a network it belongs to Vodafone's network, rather than BT's.

322. The Director argues (i) that an RBS backhaul circuit is functionally equivalent to the PPCs subject to the PPC Directions, (ii) Vodafone's RBS and MTX constitute "users' premises" for the purpose of the definition of the organisations referred to in Annex II, paragraph 2 of the Directive, (iii) the RBS and the MTX constitute network termination points for the purpose of the relevant definition of leased line services in Annex I of the Directive, (iv) the leased line involved in the supply of the RBS backhaul circuit allows "the user" Vodafone to communicate between two premises of that "user", namely between the RBS and the MTX; and (v) the provision of a leased line service involves the use of a "telecommunications network" within the meaning of Article 2(1).

323. In our view, the Director is in error in finding that the supply of an RBS backhaul circuit is covered by the leased lines provisions of the Directive.

324. First, it seems to us that the overall purpose of the leased lines provisions of the Directive is to enable other network operators to offer their customers "end to end interoperability" in the form of a complete private circuit. Just as, in our view, the main interconnection provisions of the Directive are intended to achieve "end to end" or "any to any" interoperability between end users connected to public telecommunications networks, irrespective of the network to which they subscribe, so too in our view the leased lines provisions of the Directive are aimed at enabling customers subscribing to the network of one network operator to obtain an "end to end" private circuit from that network operator, irrespective of the fact that that operator may not be able to provide a service to all the premises in question without the facility to interconnect with another operator. Viewed in that light, we see the main interconnection provisions and the leased lines provisions of the Directive, respectively, as entirely complementary to, and consistent with, each other. Both are concerned with end to end interoperability, one as regards public networks, the other as regards private circuits.

325. However, just as we have already found that the supply of an RBS backhaul circuit does not fall within the concept of "interconnection" under the Directive, essentially because the element of interoperability, in the sense of enabling the end user of one network to communicate with the end user of another network, is lacking, it seems to us that the same objection applies to the Director's characterisation of the RBS backhaul circuit as a "leased line" for the purposes of the Directive. The essential feature of the RBS backhaul circuit which in our view prevents it from being a leased line subject to the interconnection obligations of the Directive is that (a) it is not a line which at any point reaches the premises of an "end user" and (b) it is not intended as part of an "end to end" private circuit linking different premises of an end user.

326. More specifically, the definition of "leased lines services" in Annex 1, Part 2, of the Directive, refers to facilities which provide for "transparent transmission capacity between "network termination points". For the reasons already given at paragraphs 274 to 287 above, it seems to us that "network termination point" in this context must bear the same meaning as it does elsewhere in Annex I and Annex II where, in our view, it refers plainly to networks which comprise or include end users – i.e. the final customer. See e.g. the references in Annex 1, Part I, to "the transfer between network termination points at fixed locations of speech", "Access to the end user's network termination point", "the provision to end users at fixed locations", "Access to the end user via a number in the national numbering plan"; the references in Annex 1, Part 3 to " a … network where the network termination points are not at fixed locations", "radio communications to one mobile user"; and the references in Annex II to "organisations which control the means of access to one or more network termination points identified by one or more numbers in the national numbering plan", "the ability to control the telecommunications services available to the end user at that network termination point", "the ability to deny other service providers access to the end user at the network termination point", "control of the physical link to the end user", and "access to an end user's network termination point".

327. It is not contested that an RBS backhaul circuit has no "network termination point" at an end user's premises, and is not intended to connect premises of an end user. It thus falls, in our view, outside the definition of "leased lines services" in Part 2 of Annex I. That conclusion accords with our view of the proper scope of the Directive, which is to enable

end users to obtain complete private circuits irrespective of the network operator to which the various premises of the end user are connected.

328. As to the Director's argument that Vodafone can be considered as a "user" for the purposes of the definition in Annex II which refers to "organisations which supply leased lines to users' premises", the EC Commission in the Working Document referred to above stated that a network operator who leases a leased line from another operator, for onward supply to the customer, may also be a "user". However, it is clear that the Commission's view is there expressed in a context where the leased line in question is then supplied, by the operator concerned, to the end customer on retail terms. Bearing in mind the scope and aim of the Directive, we have difficulty in persuading ourselves that Vodafone is "a user" for the purposes of the Directive where the element of re-supply of the circuit to an end-user is lacking. The purpose of the Directive is not in our view to enable another network operator to obtain a private circuit exclusively for his own use in building his own network.

329. For the same reasons, in considering the meaning of "users' premises" in Annex II, paragraph 2, of the Directive we have great difficulty in persuading ourselves that the phrase "users' premises" could include Vodafone's RBS or MTX as the Director argues. Bearing in mind the aim and scope of the Directive, it seems to us that "users' premises" there means the "end users" premises. That approach in our view is consistent with our interpretation of 'network termination points' in Annex I, Part 2.

330. On that approach one then arrives, in our view, at a coherent rationale for provisions of the Interconnection Directive regarding leased lines, namely that those provisions apply where the aim is to secure for an end user interoperability by means of a private circuit between that customer's premises without being wholly dependent on the incumbent operator. That view is consistent with the system of the Interconnection Directive as a whole, which in our view is specifically aimed at interconnection between networks to allow customers of one network access to another network, rather than to connect parts of one network. As we have said, the missing element in the supply of the RBS backhaul circuit is the supply of any part of the system in question to an end user's premises, or the supply of that system for the purpose of enabling different premises of an end user to be linked by a private circuit. Hence we conclude that an RBS backhaul circuit is not a leased line of a kind which engages the interconnection rights and obligations set out in Articles 3 to 8 of the Directive.

331. As regards the Director's argument that the supply of a leased line must be a "telecommunications network" within the meaning of the Directive, otherwise the obligation to interconnect would not arise, the better view, it seems to us, is that a leased line is a service provided via a telecommunications network rather than a network in itself: hence the reference, in the Directive, to "leased line services". In any event, we would not accept that a leased line is a "telecommunication network" for the reasons already given in Section A above. We also note that in the Working Document cited above the EC Commission itself considered that the provision in the Directive "for the 'interconnection' of leased lines is quite separate from other provisions in the Interconnection Directive concerning the interconnection of public switched networks". In our view, "leased lines" are a separate sub-set of the Interconnection Directive, applicable in the particular case where a partial private circuit is needed to complete a private circuit between end-users' premises.

332. It follows, in our view, that the right for a network operator to be interconnected as regards a leased line depends on that network operator requiring that leased line for re-supply as a connection to a customer's premises, as the existing PPC Directions expressly require. That condition is not satisfied here. For the same reason in our view BT has not been in breach of its obligation of non-discrimination by supplying RBS backhaul circuits at prices that differ from the wholesale prices required by the PPC Directions, because the circumstances are different. The RBS backhaul circuit is not re-supplied to an end user customer.

Conclusion on Section B

333. For those reasons, we do not think that the supply of an RBS backhaul circuit in the circumstances of this case is, or is analogous to, a "leased line" within the meaning of the Interconnection Directive.

VIII GENERAL CONCLUSIONS

334. The foregoing analysis leads to the conclusion that the dispute which the Director sought to resolve by the Direction was not a "dispute concerning interconnection" for the purposes of the Directive and the 1997 Regulations.

335. The Director, however, argues that Member States should be accorded "a margin of appreciation to adapt their regulatory framework to the evolving economic features of the national telecommunications market", especially since the Interconnection Directive is characterised by "a certain flexibility in its provisions", as pointed out by Advocate General Jacobs at paragraphs 73 and 74 of his opinion in case C-79/00 *Telefonica de Espana* [2001] ECR I – 10075, 10096.

336. The issue in *Telefonica de Espana* was whether the Member State was precluded by the Interconnection Directive from adopting certain regulatory provisions regarding interconnection at local and higher level switching centres and access to the local loop. The Court held that it was not so precluded, without however taking up the Advocate General's remarks about the Member State's margin of appreciation: see pages 10114 to 10117 of the judgment.

337. Whatever margin of appreciation may be legitimately accorded a Member State in the transposition into national law of the Interconnection Directive – which was what Advocate General Jacobs was in our view referring to – it does not seem to us that a Member State is entitled, in administering the Directive in a particular case, to give the concept of "an interconnection dispute" a meaning which is outwith the true scope of the Interconnection Directive. While a Member State may admittedly have some room for manoeuvre as regards the preparation of its legislation in borderline cases, that is not in our view relevant for present purposes.

338. Little or nothing has been cited to us to indicate convincingly that the EC Commission itself, the European Parliament, the United Kingdom, or the other 14 members of the Council of Ministers saw "interconnection" in the extended way which forms the basis of the Direction. In those circumstances, and for the reasons already given, we do not see a sound legal basis for giving the Interconnection Directive the wider meaning contended for, only four weeks before its repeal and its replacement by the Access Directive which, in the

Director's view, is amply wide enough to form the legal basis for what the Director seeks to achieve.

339. It follows in our view that we must allow BT's appeal under section 195(2) of the 2003 Act. Since our decision must include a decision as to what (if any) is the appropriate action for OFCOM to take as regards the subject matter of the Direction, our decision is that it is appropriate for OFCOM treat the Direction as being without legal effect and to take no further action as regards the dispute between BT and Vodafone pursuant to the 1997 Regulations. We remit the matter to OFCOM with a direction to that effect.

340. For these reasons, the Tribunal decides:

1. The appeal is allowed.
2. The Direction dated 23 June 2003 is declared to be without legal effect.
3. The Direction is remitted to OFCOM with a direction to treat the Direction as being without legal effect and to take no further action pursuant to the Telecommunications (Interconnection) Regulations 1997 as regards the dispute between BT and Vodafone which formed the subject matter of the Direction.

Christopher Bellamy Michael Blair Arthur Pryor

Registrar 12 May 2004