II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DECISION

of 28 June 2000

declaring a concentration incompatible with the common market and the EEA Agreement

(Case COMP/M.1741 — MCI WorldCom/Sprint)

(notified under document number C(2000) 1693)

(Only the English text is authentic)

(Text with EEA relevance)

(2003/790/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to the Agreement on the European Economic Area, and in particular Article 57 thereof,

Having regard to Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings [1], as last amended by Regulation (EC) No 1310/97 [2], and in particular Article 8(3) thereof,

Having regard to the Commission decision of 21 February 2000 to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission,

Having regard to the opinion of the Advisory Committee on Concentrations [3],

Whereas:

(1) On 11 January 2000, the Commission received a notification of a proposed concentration pursuant to Article 4 of Regulation (EEC) No 4064/89 by which MCI WorldCom, Inc. (MCI WorldCom) merge, within the meaning of Article 3(1)(a) of the Regulation, with Sprint Corporation (Sprint) by way of exchange of shares.

I. THE PARTIES

(2) Both MCI WorldCom and Sprint are global communications companies. MCI WorldCom provides a wide range of telecommunications services to businesses and consumers, including facilities-based local, long distance and international freephone, calling card, debit card and Internet services. Sprint provides, in the USA, local, long-distance, and wireless communications and Internet services. Sprint's activities in Europe were (until Sprint's withdrawal from its participation in Global One, a joint venture with Deutsche Telekom and France Telecom) conducted through Global One.

[1] OJ L 395, 30.12.1989, p. 1; corrigendum OJ L 257, 21.9.1990, p. 13.

[2] OJ L 180, 9.7.1997, p. 1; corrigendum OJ L 40, 13.2.1998, p. 17.

[3] OJ C 277, 18.11.2003.

II. THE OPERATION AND CONCENTRATION

(3) On 4 October 1999, MCI WorldCom and Sprint signed an agreement and plan of merger under which Sprint stock will be exchanged for MCI WorldCom stock. Sprint will be merged into MCI WorldCom and will lose its separate corporation existence while MCI WorldCom will continue as the surviving corporation. The proposed concentration is therefore a full legal merger within the meaning of Article 3(1)(a) of Regulation (EEC) No 4064/89, as amended.

III. COMMUNITY DIMENSION

(4) The undertakings concerned have a combined aggregate worldwide turnover of more than EUR 5 billion [4] […]* (*) [5]. Both MCI World and Sprint have a Community-wide turnover in excess of EUR 250 million […]*, but they do not achieve more than two thirds of their aggregate Community-wide turnover within one and the same Member State.

(5) The notifying parties contested the Community dimension of this transaction in letters sent on 20 October 1999 and 26 October 1999 and again in their response to the statement of objections. According to the parties, Sprint's share of Global One's turnover should not have been included in the turnover calculations when computing Sprint's turnover in accordance with Article 5 of the Merger Regulation.

(6) Applying Article 4(1) of the Merger Regulation, the transaction in this case was to have been notified within seven days of the signature of a binding merger agreement. Calculation of turnovers to determine the Community dimension has therefore to be made at the time and under the factual circumstances of the signing of the merger agreement or at the latest at the time the duty to notify arose [6]. Turnover attached to certain activities may only be excluded when the notified agreement commits irrevocably as a condition precedent to dispose of those activities or if such activities have been divested between the closing of the accounts and the signature of the final merger agreement.

(7) As the exit of Sprint from Global One was neither effected at the time of signing the merger agreement nor a condition precedent to the notified concentration, the notified operation therefore has a Community dimension.

IV. PROCEDURE

A. *PROCEDURAL ISSUES*

(8) On 2 February 2000, the notifying parties submitted, pursuant to Article 6(2) of the Merger Regulation, an undertaking that Sprint will use every endeavour to complete, without undue delay, its withdrawal from the Global One joint venture. In the meantime Sprint would not participate in any respect in the management of day-to-day operations of Global One. The parties argued that Sprint's withdrawal from Global One will not only significantly reduce the competitive overlap in the international carrier services market and the global corporate telecommunications services to multinational corporations (MNCs) market. The parties also argued that the proposed commitment would remove any concerns regarding the compatibility of the notified concentration as regards any affected market.

(9) On 21 February 2000, after examination of the notification, the Commission concluded that the proposed commitment was not sufficient to remedy the competition concerns raised by the proposed transaction and accordingly the operation fell within the scope of the Merger Regulation and raised serious doubts as to its compatibility with the common market, and decided to initiate proceedings pursuant to Article 6(1)(c) of the Merger Regulation.

(10) On 9 March 2000 and 14 March 2000, the Commission addressed additional requests for information to the parties pursuant to Article 11 of Regulation No 4064/89. The period to supply the information requested expired on 17 March 2000 at 12.00 CET. At the date of expiry of the deadlines set by the Commission, the parties had not provided full responses to the requests.

(*) Parts of this text have been edited to ensure that confidential information is not disclosed; those parts are enclosed in square brackets and marked with an asterisk.

[4] Turnover calculated in accordance with Article 5(1) of the Merger Regulation and the Commission Notice on the calculation of turnover (OJ C 66, 2.3.1998, p. 25). To the extent that figures include turnover for the period before 1 January 1999, they are calculated on the basis of average ECU exchange rates and translated into EUR on a one-for-one basis.

[5] Sprint's turnover includes one third of Global One's turnover as it was one of the three controlling shareholders in this joint venture.

[6] Commission Notice on calculation of turnover (OJ C 66, 2.3.1998, p. 25, paragraph 27).

(11) By decision of 20 March 2000, the Commission required MCI WorldCom and Sprint to supply the outstanding information necessary to complete its investigation no later than 24 March 2000 at 08.00 CET. On 24 and 27 March 2000, the parties provided the outstanding information. This had the effect, in application of Article 9 of the Implementing Regulation ([7]), of setting back the final deadline by which the Commission has to adopt an Article 8 decision from 4 July to 12 July. In their response to the statement of objections, the parties contested the date of 27 March 2000, arguing that they had provided the requested information through electronic mail on Friday 24 March. However they represented in a letter dated 26 May that the electronic copy of the reply to the Article 11 decision was not complete until the Article 11 response was filed in multiple hard copies on 27 March. Given the date of adoption of the present Decision, it is not necessary to conclude on the correct filing date.

(12) The Commission sent a statement of objections to the notifying parties on 3 May 2000. The parties replied on 22 May and an oral hearing was held at the request of third parties on 30 May. On 27 June 2000, the parties informed the Commission of their intention to withdraw formally the notification because they did not any longer propose to implement the proposed merger in the form presented in the notification. However, this did not amount to a formal withdrawal of the merger agreement signed on 4 October 1999 that is the object of the notification. In addition, the parties left open the possibility for them to implement the proposed merger in a form different to the notification. For these reasons, the Commission could not accept such notice as a formal withdrawal of the transaction.

B. *COOPERATION WITH THE UNITED STATES DEPARTMENT OF JUSTICE*

(13) The MCI WorldCom/Sprint merger proposal was also notified, *inter alia*, to the Antitrust Division of the United States Department of Justice (DoJ). The parties granted appropriate waivers in order to enable the DoJ and the Commission to exchange information and documents supplied by the parties to the two agencies. Many firms who responded to parallel enquiries from both the DoJ and the Commission were prepared to let the two agencies exchange information, or supplied the same submission to both.

(14) In the course of the investigation and analysis of the merger proposal there was a considerable degree of cooperation between the two agencies, involving preliminary exchanges of views on the analytical framework, coordinated requests for information, attendance of DoJ observers at the oral hearing and Commission officials at a 'pitch meeting' at the DoJ and joint meetings with the notifying parties.

(15) On 15 May 2000, the Director-General for Competition sent a letter to the United States Assistant Attorney General requesting the cooperation of the DoJ in evaluating the impact of the merger on the US long-distance market and its consequences on the international telephony field.

V. **COMPETITIVE ASSESSMENT**

A. *THE INTERNET*

BACKGROUND

(16) The Internet is an interconnected 'networks of networks' that carries bits of data between two or more computers through thousands of interconnected networks. Approximately 300 networks providing Internet connectivity operate long-distance transmission networks that, together, form the global Internet's international 'backbone'. A handful of these operate networks that connect to multiple countries in more than one region. It is estimated that the 10 largest Internet connectivity providers control 70 per cent of international Internet bandwidth ([8]). Below the top tier providers are a number of Internet connectivity providers that operate at regional level (Europe, USA and Asia). There are also an increasing number of national providers. In addition, academic and research networks operate as international connectivity providers on regional basis ([9]).

(17) Access to the Internet for end-users comes, *inter alia*, from Internet service providers (ISPs) who provide Internet access and related services, as well as from telecommunications and data communications companies and from companies in other businesses who give away Internet access as a means of selling their own products. Larger Internet connectivity providers then provide the underlying connectivity between the different ISPs, content providers, web sites, etc. and other network providers. End-users could be residential customers, corporations, governmental institutions and universities. Given that the users need and demand universal connectivity, Internet connectivity providers need interconnection to all parts of the Internet.

([7]) Commission Regulation (EC) No 447/98 of 1 March 1998 on the notifications, time limits and hearings OJ L 61, 2.3.1998, p. 1.

([8]) TeleGeography 2000, p. 106.

([9]) […]*.

Interconnection

(18) Any Internet connectivity (network) providers obtain connectivity through one of two means (a) transit arrangements, which provide access to the global Internet and (b) peering arrangements, which provide for the exchange at particular points of roughly comparable amounts of traffic for termination between two networks of roughly equivalent geographic coverage.

(a) **Transit**

(19) Transit is a commercial service granting access to the Internet for a fee. Transit can take three forms: dedicated access (a dedicated line to another network provider or large customers), retail dial-up access (to consumers and residential and business customers) or wholesale dial-up access to Internet service providers ([10]).

(b) **Peering**

(20) Peering involves an agreement between two networks to accept traffic from each other's customers for termination on their respective networks.

(21) Peering is in turn categorised as either 'public' or 'private' (also referred to as 'direct' peering). Public peering occurs at established public interconnection points where a number of Internet connectivity providers may agree to exchange traffic at a single location, often referred to as a network access point, or 'NAP'. Private peering occurs between large Internet connectivity providers at designated points suitable for the two networks.

(22) The historical basis for peering developed as networks of roughly equivalent size agreed to exchange traffic. The first peering points were the NAPs that were created after privatisation of the Internet by the US Government. These NAPs are owned and operated by commercial entities such as MCI WorldCom and Sprint. The commercialisation of the Internet in the 1990s meant that many of the NAPs became congested during the transition to a fully commercial market. NAPs continue to be congested and are used mainly by tier-two providers that do not have the same need of high-capacity interconnections. In response to the congestions in the NAPs, larger networks that had exchanged significant traffic with one another at the NAPs shifted to direct peering agreements, and established interconnection at points convenient to the two networks. This has continued to be the preferred practice of the larger networks. Typically larger networks will use private peering points (with some legacy public peering) while smaller networks will use public peering.

(23) The importance of private peering has also been shown by the requirement of large corporate clients for private peering points. Many large business customers issuing requests for proposals (RFPs) for global telecommunications services insist that Internet connectivity providers bidding for their business have a specified volume of private peering (both number of points and size of interconnections) with particular Tier 1 Internet connectivity providers. This is required since it adds reliability.

(24) Top-level connectivity providers have an incentive to peer privately and for free with carriers that have networks that are similar in size, traffic volume, geographic reach and quality. This allows the top-level networks to retain all revenues from their subscribers without having to make payments with other network providers. If the traffic is symmetrical this arrangement benefits both parties equally. Geographical balance also brings more parity in terms of costs of the network (the Internet network providers have an economic incentive to deliver their traffic to their peers at the shortest possible point of interconnection to limit network costs). This means that top-level connectivity providers have an incentive not to peer with others than those with more or less the same traffic volumes and equivalent geographic coverage. As soon as the traffic becomes too asymmetrical, it would be more beneficial for the larger providers to charge for the interconnection […]* ([11])[…]* ([12])[…]*.

(c) **Differences between peering and transit**

(25) Transit differs from peering in three respects:

— the party receiving transit services obtains global dedicated (always-on) connectivity, i.e. the ability to send traffic via, and to receive traffic from, all the routes available to the provider and the provider's peers — virtually anywhere on the Internet, and not merely access to customers of the transit provider itself,

([10]) The connection goes through a modem port and ISPs are billed on usage basis. Major ISPs such as AOL, Earthlink, Mindspring, MNS and Prodigy buy wholesale dial-up.

([11]) […]*.

([12]) […]*.

— transit is provided as a commercial service, i.e. for a fee, and also includes technical and customer service support,

— the relative infrastructure costs between the two networks are allocated differently than under peering (in the case of peering, each party bears its share of the infrastructure costs, in the case of transit, the transit provider bears the fixed infrastructure costs of providing connectivity and the customer pays for the service).

(26) Peering is essentially a barter arrangement (although some Internet connectivity providers do provide peering under a fee arrangement). In terms of traffic, this means that both sides are of roughly the same size. Both networks swap the benefits of their customer base. The balance of interest between both networks in a peering relationship also imposes that neither party can choose the other one as a route of last resort. If Peer A receives traffic from Peer B, Peer A will not, under the peering arrangements with B, hand off B's traffic to A's other peer, Peer C. In order to transmit traffic to C, B must either peer with C or buy transit from C or another Internet connectivity provider.

(27) Peering is more economical than transit as long as not too many peering agreements have to be entered into, hence the hierarchical nature of the Internet. This is also implicit in the parties' own business strategies. Had it been more economical for them to purchase transit than to rely on peering they would do so. The Commission's investigation shows that neither party to the transaction pays for connectivity. On the other hand they are paid for providing connectivity. […]* ([13]).

(28) In addition, without a direct connection the traffic has to pass through additional hops (i.e. intermediate stages in transit) and the quality of service decreases, leading notably to increased latency (i.e. it takes longer to transport the traffic) and increased likelihood of packet loss. Direct peering relationships allow the peers to minimise these quality of service issues. MCI WorldCom's Internet division UUNet is required by its own service level agreement (SLA) to provide average monthly latency of no more than 85 milliseconds roundtrip within UUNet's network in North America and of no more than 120 milliseconds between New York and UUNet's international gateway hub in London. […]* ([14]). The importance of hops for the quality of service was contested by the notifying parties in their reply to the statement of objections but this position was contradicted by third parties statement during the oral hearing (see further below at recital 63).

Intranets and extranets

(29) An intranet is a private network that is limited to a company or organisation. It may consist of many interlinked local area networks (LAN) and also leased lines in the wide area network. An intranet normally includes connections through one or more gateway computers to the outside Internet. The main purpose of an intranet is to share company information and computing resources among employees. An intranet can also be used to facilitate working in groups and for teleconferences. An intranet looks like a private version of the Internet allowing companies and organisations to send private messages through the public network, using the public network with special encryption/decryption and other security safeguards to connect one part of their intranet to the other.

(30) Larger companies and organisations allow users within their intranet to access the public Internet through firewall services that have the ability to screen traffic in both directions so that company security is maintained.

(31) When part of an intranet is extended to customers, partners, suppliers or others outside the company, this part becomes the extranet. Extranets require firewall server management, the issuing and use of different user authentication, encryption of messages and the use of virtual private networks (VPNs) that tunnel through the public network. Extranets can be used to exchange large volumes of data, share product catalogues, provide or access services provided by one company or organisation to a group of other companies, such as an online banking application managed by one company on behalf of affiliated banks

([13]) *Cf.* footnotes 11 and 12.
([14]) […]*.

Web hosting and data centres

(32) A web-hosting provider offers web-hosting centres (or data centres) featuring access-controlled buildings with servers that are monitored from a central, web-hosting operations centre. The data centres are specially built to house Internet servers and equipment. Customers of the data centres connect to the data centre and the web-host then ensures the connection to the Internet through its own servers that are directly connected to the Internet backbones ([15]).

(33) Web hosting can be used by e.g. websites that want to ensure that data is secure, their equipment is safe and that the access to the website is fast and reliable. It also allows for more flexibility to expand when more capacity is needed or to decrease capacity when demand is lower. Today, all the larger Internet connectivity providers offer data centres/web hosting as part of their integrated Internet services to their customers.

DEVELOPMENTS SINCE 1998

(34) During the last couple of years new techniques such as controlled content distribution, mirroring and caching have developed to move content closer to the end users (the eyeballs). In addition, multihoming has developed as a practice whereby Internet access providers and Internet connectivity providers connect to more than one network.

Multihoming

(35) The practice of network providers and Internet access providers of being connected to more than one network is referred to as 'multihoming'. A multihomed network retains connectivity to the Internet when one connection is disrupted, and can route traffic to any destination over the connections it has that offer better service and to avoid congestion to that destination.

([15]) According to UUNet the following are the most important elements to consider when selecting a web-hosting provider: (a) the speed of access of the server, (b) redundant Internet connections (more than one connection that is high speed), (c) the website owner's control over its website, (d) server security, (e) bandwidth and connections to meet increased demand, (f) backup, (g) 24-hour server availability (h) the performance of the web servers used, (i) choice of encryption, (j) Internet experience of the provider, (k) knowledgeable sales and support staff, (l) monthly traffic report to provide feedback on the number of visitors to the website and (m) affordability — hosting the server in a data centre is cost-effective (according to UUNet up to one fourth the cost 'of doing it yourself'. UUNet's monthly hosting fee starts at USD 750 per month (see http://www.us.uu.net/products/hosting/keystrengths/selecting.html).

(36) Given that quality of connection matters (speed, reliability and redundancy) one way for Internet access and network providers to ensure themselves of universal access to the Internet is to multihome. The Commission's investigation has shown that multihoming is mainly used for back-up and redundancy to ensure quality of service. However, multihoming does not necessarily prevent traffic from passing over a network with a degraded connection. The path of the outbound traffic can to some extent be influenced so that passing over a degraded network is avoided. But, the return traffic would not be possible to control to any significant degree. Multihoming may also be used to ensure connections to certain regions (e.g. the USA or Europe). Multihoming also gives new entrants an opportunity to connect to customers.

(37) Multihomed networks normally have one main provider of connectivity and then one or more other providers as back up. Normally, customers of Internet connectivity providers have their main connection to the provider that can connect it to the largest amount of customers and the back up to the smaller provider(s). This is confirmed by the Commission's investigation which shows that the majority of second level or smaller Internet access and network providers are multihomed to either one of the merging parties or both of them.

Caching, mirroring and content delivery networks (CDNs)

(38) The primary function of caching and mirroring is to distribute content to the edges of the Internet, closer to the end-user (the eyeballs). These technologies improve the quality of content delivery given that they reduce delivery times, network congestion and bandwidth costs and move the content closer to the end-users. However, these techniques are not yet widely deployed and they have their technical limitations (see further below at recital 172). In particular, they are more efficient for static and stable material that does not change that often.

Caching

(39) Caching is the oldest of the techniques. Caching creates temporary copies of information such as web pages, image files or multimedia files (collectively referred to

as objects), that reside on computers (caches) other than the host from which the information originated (the origin server). Caches do not copy the entire content of the website but those parts of the website that contain dynamic content, in order to reduce the bandwidth load on these centralised servers. Caches are installed by the network owner/administrator at selected locations in a given network.

(40) A cache may be an ordinary PC that runs publicly available software or it may be a highly specialised computer (or network of computers) running special software designed to run on those computers. When installed in a network, a cache intercepts requests from hosts to the home network for objects located on other networks, and checks to see whether the object is stored in the cache. If the cache determines that the requested object is stored in the cache (a hit), the cache server delivers the stored object to the requesting host. If the object is not located in the cache (a miss), the cache server allows the information request to continue on toward the origin server.

(41) There are three types of caches, traditional, transparent and pre-fetching caches. Traditional caches, or older caches often known as proxy servers, required the requesting server to have configured its browser to send object requests to the proxy server rather than directly to the website in question. Transparent caches, unlike traditional caches, may be installed directly in the network and can capture all object requests that pass through them. They are 'transparent' in that the requesting host need not configure its browser to use a proxy server and are not aware that it may be receiving objects from a cache server. Ordinarily, caches only store information that has previously been requested by a previous user. By contrast, some traditional and transparent caches will 'pre-fetch' objects, i.e. they will request information from websites according to predefined criteria, and update that information on a regular basis. This allows the cache server to 'anticipate' requests, further improving the performance of the cache. Pre-fetching is particularly useful where content is relatively dynamic (e.g. such as web pages that are updated on a daily or more frequent basis).

(42) Caching as such is not provided as a stand-alone service. Rather, it is a network enhancement installed by the network operator/administrator to improve network transmission speed and quality, and ISPs purchase and install caches in their networks for two reasons: (a) to remove bandwidth requirements and (b) to improve delivery responses times to customers. Both considerations are important to all cache purchasers, but the ranking of the priority will depend on the particular ISP.

(43) Caching is especially attractive to corporate customers but not to content providers since it does not enable the content providers to count the number of hits (visits to the site) which is necessary to calculate and generate advertising revenues. […]*

Mirroring

(44) Mirroring is basically the same as caching. Data which are (or will be) repeatedly requested is replicated on different computers, and are served to anybody who requests them from a computer that is closer than the original content provider. The objective is to reduce reliance on the central servers, and to serve the content more effectively and quickly to the local viewers.

(45) Whereas caching is a network management technique by which a network operator installs a computer that operates special caching software in order to improve the network's transmission speed and reduce bandwidth requirements, mirroring is a technique by which content is replicated on geographically dispersed servers.

(46) Mirroring is not generally offered as a stand-alone service. In some cases, a content provider may decide to locate its own servers on other networks closer to end-users. This is most common where a content provider has a small number of large files that it wishes to locate closer to specific sets of end-users. For example, Microsoft and Netscape use separate download servers to enable European customers to download software more quickly than they would if they needed to download the files from the origin server in the USA.

(47) More commonly, however, mirroring is offered as part of the package of web hosting (see above at recitals 32 and 33) or collocation services companies. These maintain data centres that are located throughout the world and connect to multiple Internet backbones. All major Internet connectivity providers provide web-hosting and collocation services. For example, MCI WorldCom announced on 31 May 2000 that it will build 13 large data centres in Europe to target ISPs, ASPs (application service providers) and large multinationals. The new centres will be added to WorldCom's 28 existing smaller centres in Europe ([16]). The mirroring provided by these data centre operators involves the placement of multiple servers housed in geographically dispersed locations, each of which is capable of processing the same requests and providing the same information. The geographic dispersion allows web-hosting providers to use the domain name system (DNS) either to direct requests to the closest server or to distribute requests among different servers to balance the load on different servers.

([16]) 'WorldCom plans European data center roll-out', Emily Bourne, *Total Telecom,* 31 May 2000.

Content delivery networks (CDNs)

(48) The combination of caching and mirroring techniques has given rise to a more advanced form of content distribution, CDNs. CDNs operate by locating cache servers or similar devices on multiple networks and in diverse geographic locations. A CDN provides the customer (a content provider) with software that automatically reconfigures the customer's web pages to point the end-user's request for large objects to the CDN server that is either closest to the end-user, or, in some cases (on the basis of real-time network monitoring and routing algorithms), is able to deliver the content most quickly to the end-user (e.g. if congestion would slow down the closest server).

(49) CDNs perform a similar function to caching, although whereas ISPs use caches to improve their ability to 'pull' content onto their networks (so that it is closer to the ISPs' customers), CDN enables content providers to 'push' their content onto other networks. As such, the two approaches are complementary in their effects on the usage of Internet backbone networks.

(50) Content providers, first and foremost, wish to deliver their content to the end-user as quickly as possible. The high growth of the amount of information carried over the Internet has led to capacity constraints and increased response times to websites. CDN reduces the response times by reducing the amount of data that needs to traverse the different networks. Relying on a CDN reduces the content providers' bandwidth and equipment costs for the same quantity of data. A content provider that uses a CDN service requires less capacity and requires fewer of its own servers because the content provider no longer serves the bulk of its content directly. The CDN must incur a portion of these costs, but can shift them back to the content provider. However, a content provider may still find it more economical to use a CDN than to provide content from its own servers or from servers located on a web-hosting service's data centres.

(51) In addition to the above techniques, the Internet is now witnessing the development of new services such as e-commerce, video online, voice over IP, etc. that necessitate much more capacity than required up until today and also are provided in real time. To be able to be performed, these services need to be transported over networks that present no risks of failures or 'packet loss' (otherwise the quality of say the video or the voice conversation would be severely affected).

B. *RELEVANT PRODUCT MARKETS*

TOP-LEVEL OR UNIVERSAL INTERNET CONNECTIVITY

(52) In the WorldCom/MCI decision of 8 July 1998 [17] (WorldCom/MCI), the Commission identified three distinct markets: (i) provision of host-to-point-of-presence connectivity, (ii) provision of Internet access services and (iii) provision of top-level or universal connectivity. The Commission concluded that there was substantial competition on the Internet access market and the analysis therefore focused on the market for the provision of top-level or universal connectivity where both parties to that transaction were active. The market investigation conducted in the current case confirms that for the purpose of this transaction, the focus should again be the market for top-level or universal connectivity assessed in the WorldCom/MCI decision.

(53) The Commission defined in the WorldCom/MCI decision the provision of top-level or universal connectivity as a separate market since it found that only organisations which are capable of delivering complete Internet connection entirely on their own account are the top-level Internet connectivity providers (top-level or top-tier Internet connectivity providers) and that their connectivity was supplied entirely by peering agreements between those top-level networks or internally. Secondary Internet connectivity providers (or second-tier providers) may be able to deliver some of their own peering-based connectivity, but had to supplement it through bought transit. It was found that second-tier ISPs could not avoid continuing to buy transit from the top-level networks and second-tier ISPs could not provide a competitive constraint on the prices charged by the top-level networks. The same conclusion could be drawn for resellers. Thus, it was concluded that the relevant market on which MCI and WorldCom were active was the market for the provision of top-level or universal Internet connectivity.

(54) At the time, MCI and WorldCom challenged the Commission's proposition that the Internet has a hierarchical structure. However, Sprint asserted at the time

[17] Case M.1069 (OJ L 116, 4.5.1999, p. 1).

that the Internet has hierarchical characteristics, and it has not disclaimed those assertations ([18]). In the current transaction the parties allege that the Internet is non-hierarchical. […]* ([19])[…]* The Commission's investigation has however confirmed the Commission's finding in the WorldCom/MCI decision that the Internet is a hierarchical structure and that there is a tier of top-level network providers that achieve their connectivity entirely by peering agreements between the top-level networks or internally. The investigation also shows that top-level network providers continue to rely among themselves on settlement-free peering at private peering points. On the other hand, smaller (second-level) network providers continue to rely on national or regional peering agreements (including MCI WorldCom's European subsidiaries) to obtain national, regional and, perhaps, European connectivity. Nevertheless, in order to obtain global connectivity even large European network providers purchase transit from one or more of the top-level Internet connectivity providers. The next segments consists of regional network providers and the Internet access providers that purchase connectivity for their retail customers. Other customers of large Internet connectivity providers include websites and dedicated corporate access customers […]*. In summary, all undertakings involved in the provision of Internet services purchase transit and are direct or indirect customers of the top-tier connectivity providers. None can achieve global connectivity without having access to the top-level connectivity providers networks.

(55) The parties' own submission also confirms the geographical hierarchy of the Internet, meaning that the US networks are treated as more important than others. MCI WorldCom has three regional backbone networks: AS 701 (North America), AS 702 (Europe) and AS 703 (Asia Pacific). [In order to obtain peering for global connectivity, the network provider needs to meet the criteria set by UUNet for peering in North America.]* Sprint provides Internet services in only the USA. Sprint's agreements with its peers offer them connectivity to its US network only if the peers offer a worldwide network.

(56) The parties argue that any analysis of the relevant product market must take account of the recent developments in the nature and scope of the Internet. They argue that with increased demand for universal connectivity has come increased supply both in the USA and Europe. In particular the liberalisation of the EU telecommunications markets have lead to successful and ongoing entry of significant new Internet network providers and has increased the role played by European network providers. The emergence of controlled content distribution (CCD), regional peering arrangements and greater use of mirroring, caching and multi-homing have also played a critical role in the last two years by reducing ISPs' and Internet content providers' reliance on the US-based backbone providers.

(57) The investigation conducted by the Commission shows that despite significant entry of new ISPs at the retail level, in Europe and elsewhere, there is no significant entry of new top-level Internet network providers. The only two large top-level providers that have entered the market are Cable & Wireless ([20]), which bought MCI's Internet business, and AT & T, through its acquisition of, *inter alia* IBM Global Networks. These transactions did not alter the level of concentration in the market as the acquired networks already belonged to the top tier of Internet connectivity providers.

(58) The Commission's investigation has also shown that even though there has been a change in traffic flows and less traffic originating in Europe is sent to the USA, European Internet network provider's reliance on US connectivity providers is still significant. Even larger European Internet network providers are sending 50 to 80 % of the Internet traffic originating on their networks to the USA. […]* ([21]). Third parties generally agree that this ratio is likely to move down to some degree in the next years due to increased national content. However, despite this trend they expect a continued strong reliance on the large US network providers for connectivity. This is because European customers still require access to the world's most popular websites, which are located in the USA. Extended use of mirroring and caching is not likely to change this to any significant degree given that there is also a strong increase in websites and content in the USA. Despite increased use of such techniques, there is a continued strong dependence on top-level connectivity providers to obtain universal (global) connectivity.

(59) In any event, while much of the traffic that was earlier sent to the USA is now directed elsewhere or to a limited extent mirrored in Europe, much of the traffic originating in Europe will continue to be sent to US-based network providers' affiliates in Europe since many

([18]) Application of Sprint Corporation and MCI WorldCom Inc., before the US Federal Communications Commission of 20 March 2000, p. 90, footnote 142.

([19]) […]*.

([20]) Comments of Cable & Wireless to the US Federal Communication Commission (FCC) of 18 February 2000.

([21]) […]*.

of these providers are implementing networks in Europe and other regions with the result that traffic is targeted at these networks. Thus, even with a change in traffic flows, the dependence on (US) top-level connectivity providers would continue. Multi-homing does not appear to have had any significant impact on the traffic flows. The market investigation has shown that European ISPs purchase connectivity from second-tier regional (European) connectivity providers, but also rely on transit with at least one of the top-level connectivity providers to obtain universal connectivity.

(60) The Commission therefore concluded in its statement of objections that despite the developments in the Internet since 1998, there is a distinct market for the provision of top-level or universal Internet connectivity. The increased use of caching, mirroring and multi-homing does not alter this conclusion.

The parties' response

(61) In their reply to the statement of objections (the reply), the parties challenged the Commission's product market definition and hierarchical structure of the market. According to the parties, secondary peers could avoid the top-level providers in order to obtain universal connectivity. In addition, new technological developments would alter the hierarchical nature of the industry.

(62) It must first be noted that the parties acknowledge in their joint reply to the statement of objections, that '[s]econdary peers … are not part of the "default-free" core of the Internet. That is, they cannot deliver traffic to all Internet destinations without relying on transit purchased from another ISP' ([22]). In addition the parties view the relevant product market differently. In the reply, Sprint takes the view that four additional companies should be added to those identified by the Commission as top-level market players. However, Sprint does not dispute the hierarchical order of the Internet. MCI WorldCom continues to argue that the relevant market is much broader than the market identified by the Commission.

(63) A third party also submitted evidence during the hearing of the decrease in quality of its services generated by the absence of direct peering connections with MCI WorldCom in Europe.

(64) The parties alleged that secondary peering relationships (peering among local and regional connectivity providers) allow customers of top-level connectivity providers to exercise a competitive constraint on top-level connectivity providers. According to the parties, in the event that all top-level connectivity providers were to raise transit prices by 5 to 10 per cent, secondary peers would be able successfully and effectively to re-route traffic to such a degree that the increase in transit prices would be unprofitable. Moreover, as a variation of the absence of a hierarchical structure of the Internet, the parties argued in their reply that the Commission's market definition ignores developments outside the United States and the appearance of strong players in Europe.

(65) The parties fail to consider that transit customers of top-level connectivity providers would have no other sources available to them to obtain universal connectivity. To provide a substitute to the connectivity offered by top-level suppliers, second-tier providers would have to enter into a very large number of peering and transit agreements with those ISPs that they beforehand were able to reach only through the top-level layer. Given that there are thousands of ISPs worldwide, such a task would undoubtedly not be cost effective when compared to the relative increase in transit prices ([23]).

(66) Furthermore, the parties allege that the Commission has not correctly taken into account the effects of content storage and distribution technologies when assessing the relevant market. According to the parties, these techniques are not stand-alone services, but they provide partial substitute for backbone transport. Such techniques bring content closer to the users, thereby allowing 'most traffic' to avoid backbone networks.

(67) As stated in recital 38, and also further assessed in recital 172, the Commission's investigation has shown that the increased use of such techniques has had no significant impact on the structure of the market. Most of the traffic is still going through the top-level connectivity providers. In addition, given that these techniques do not allow a complete by-passing of the top-level connectivity providers, there is continued and unavoidable reliance on top-level connectivity providers to ensure universal connectivity. In any event, these techniques are not only used by content and smaller connectivity providers but are also used by the larger connectivity providers in their capacity as data-centre and collocation providers.

([22]) Joint response to statement of objections, paragraph 264 and footnote 235.

([23]) The parties acknowledge that there are thousands of ISPs worldwide. See for instance page 119 of the reply to the statement of objections.

(68) It was also argued by the parties that the Commission's market definition fails to consider that the top-level connectivity market has become substantially more competitive, as the relative position of each of the key players identified in the WorldCom/MCI decision has diminished.

(69) This argument is of no relevance to the issue of defining relevant markets as it relates to the assessment of the level of competition in the market. Moreover, contrary to the parties' views , there has been no significant entry into the market since 1998. First, in its WorldCom/MCI decision of 1998, the Commission considered a relevant market consisting of 16 top-level connectivity providers. These market players were those peering with the main four providers. In the current procedure, the Commission has considered there to be 17 top-level providers. These were selected by combining those peering with both notifying parties with views of third parties. It follows that the set of market participants identified in the current procedure has been identified on the basis of more generous criteria than used in the WorldCom/MCI proceeding. In any event, AT & T's entry into the market (notably through the acquisition of existing top-level providers) has had no significant effect on MCI WorldCom's market share. MCI WorldCom's market share during the last two years has been relatively stable depending on the methodology used to calculate market shares.

GLOBAL TELECOMMUNICATIONS SERVICES

(70) Global telecommunications services (GTS) are telecommunications services linking a number of different customer locations, generally in at least two different continents and across a larger number of different countries. They are generally purchased by multinational companies (MNCs) with presence in many countries and a number of continents. The services provided are enhanced services — going beyond the provision of simple services such as basic voice and fax — to provide customers with package solutions including virtual private networks for both voice and data services and advanced functionalities.

Characteristics of demand

(71) The parties explained in the course of the market investigation that the supply of GTS is a two-stage procedure ([24]). The first stage for customers who want such services is normally to issue a request for proposal (RFP) (which includes a detailed description of their tailored needs) to a list of possible suppliers which are invited to bid. The second stage follows the submission of bids, when the customer conducts limited negotiations with a small number of providers that have been shortlisted before choosing the winner. Detailed negotiations on the contract are then conducted with the winner.

(72) Customers of global telecommunications services demand that their provider be able to provide tailored seamless networks and services. Customers expect the networks to cover a wide range of geographically dispersed locations, some of which may be located in remote areas e.g. oil installations in desolated regions. They also expect to be provided with sufficient bandwidth to support the traffic going to and from all locations in a reliable manner. The largest suppliers of such services may be able to offer the services over their own networks. However, for most providers and/or for some locations, the supplier may have to use (lease) other companies' networks to cover areas it does not serve and seek to ensure reliability on that network.

(73) Most customers require a bundle of services to be supplied, whilst a small number may buy individual services for specific needs and conduct some integration themselves. However, contracts are not divided up in such a way that would allow individual providers to bid for different 'lots'.

(74) When asked about the main parameters applied to select a supplier of global telecommunication services, one respondent quoted a Yankee Group study ([25]) which suggested that price was only the fourth most important criterion when assessing the product offering for a supplier behind reliability, service/support and connectivity/compatibility/infrastructure. Other parameters included culture/language/time zones, bandwidth/capacity, network management, installation delays/time, global reach, staffing/personnel issues, coordination and competence. Customers responding to the Commission market investigation confirmed that price was not the only criterion they took into account when deciding on suppliers. However, the price was normally not considered as the first and foremost criteria in the initial process. Rather the issue of pricing would become of key importance in the second stage of the procedure (when different shortlisted providers offering were compared to one another).

(75) Credible bidders in the GTS market need to be facilities-based (i.e. have their own networks for most of their traffic to ensure high levels of reliability and quality of service, to be able to provide sufficient bandwidth and to control costs), have global reach and customer support services (some customers require customer service facilities to be located very close to the customer, even though their location may not be a key technical consideration). An existing customer base is also important to convince customers that the supplier is able to deliver the services effectively.

([24]) Page 20 of the memorandum on the GCTS market submitted on 17 March 2000.

([25]) Yankee Group report Executive Summary of 'The Bell(e)s of the Ball Give Their Hands: Qwest/US WEST and Global Crossing/Frontier' taken from www.yankeegroup.com.

Characteristics of supply

(76) Suppliers have a variety of means of meeting customer needs. Customers may purchase basic elements of the global telecommunications package, such as a data network and the specific applications that run over that network, for example international 800 service, and then self-provide the assembly of those services purchased from distinct suppliers to create enhanced services and providing maintenance and customer support facilities internally. Alternatively, customers may purchase tailored packages from specialised suppliers where the assembly of the package and the ongoing maintenance and customer support are carried out by the supplier, with the possibility that the supplier can offer higher performance guarantees at a lower cost because of the integrated nature of the package. The final option of supply is a complete outsourcing of the customer's activities to the supplier. This will often include the transfer of staff to the supplier, not simply the supply of the integrated service package.

(77) Whatever the customer's precise needs, the services demanded will always involve a combination of similar elements (a network, a data protocol (e.g. X.25, Frame Relay, ATM or IP), other services running over that protocol together with important qualitative elements such as geographical reach, ability to ensure quality of service (through seamlessness, close customer support, high reliability, etc.)) with therefore similar costs. Suppliers will need to be able to offer all of these features. Having the full range of services available will also have benefits in terms of cost control and reliability of the total service package and will thus improve the perception of the supplier in the eyes of the customer.

The bidding process

(78) The notifying parties provided an explanation of the bidding process during the course of the Commission's investigation. Customers typically issue requests for proposals (RFPs) to potential suppliers. In some circumstances, they issue requests for information (RFIs) before an RFP, in order to be aware of the options on offer from the major suppliers. RFPs can be long documents: one customer indicated that such a document could be 100 pages long. The RFP document is then communicated to suppliers chosen to bid for the contract.

(79) The response to the RFP can be similarly long, and aims to satisfy the customer's technical requirements. According to MCI WorldCom, the price initially proposed in reply to an RFP is set from previous experience that relates to the services to be supplied and the geographic reach of the service. […]*.

(80) [The calculation of a carrier's cost in fulfilling a GTS contract is a complex exercise which involves taking into account a broad range of factors that may include management, marketing, sales and support, personnel, administration and equipment costs.]*

(81) […]*. Once the bids have been received, normally no supplier can match the detailed requirements in the RFP, and therefore clarification meetings are held to understand and evaluate the technical aspects of the bid. This evaluation process can take a team of experts several months.

(82) Once the global telecommunications provider has reached the second stage of the bidding process (i.e. when the potential customer has made a short-list of providers), the parties explain that negotiations on price with the potential customer start. Usually the number of providers selected in the short-list ranges from three to five. From the description of the bidding market provided by the notifying parties and information supplied by third parties, even though each bid is negotiated separately in practice a good bid team will know the identity of their opponents in the second phase of the bidding process. Often, the identity and frequently a broad indication of the competitiveness of certain bids is made available to the bidder.

(83) Once the supplier is decided the contract is awarded and the detailed agreement finalised. Some customers use consultants for part of the bidding procedure: e.g. preparation of an RFP or sometimes to run nearly all of the process.

The provision of packages of global telecommunications services

(84) The provision of packages of customised enhanced and value-added corporate telecommunications services is a relevant product market for the purpose of this case.

(85) In their notification, the parties note the market definitions used by the Commission in a number of decisions covering the area of global telecommunications services to MNCs. The most recent decisions which they quote

are BT/AT & T ([26]) and AT & T/IBM ([27]). In BT/AT & T, the Commission identified a market for 'the provision of packages of customised enhanced and value-added global corporate telecommunications services, hereinafter referred to as the market for the provision of global telecommunications services'. In their notification, the parties agree with the Commission's assessment in BT/AT & T that the product market should not be broken down into narrower product markets for isolated services included in the range of global telecommunications services. The parties also note that packages of global telecommunication services are tailored solutions, and that they are therefore designed, packaged and managed individually to meet a particular customer's communications need at any given time.

(86) The services offered identified by the notifying parties as belonging to the basket of services to be included on the product market were: domestic and international voice communications; domestic and international data communications provided over a variety of platforms, such as Frame Relay, ATM and IP; enhanced voice and data services; international freephone numbers; messaging services; call centres; video and audioconferencing services; intra/extranets; virtual private networks (VPNs); dedicated Internet access; and corporate calling cards.

(87) The Commission investigated whether this definition of the relevant product market is robust. To that end, it was necessary to assess whether certain or all individual lines of services may be isolated from the basket of global services and be considered as separate relevant product markets. A second step of the analysis was to evaluate to what extent self-provisioning or outsourcing the provision of global telecommunications needs should be regarded as actual or potential competition or simply irrelevant for the competition analysis.

Individual services v package of services

(88) Most customers agreed with a market definition based on packages of global services. However, certain customers also believed that some services could be identified as single product markets. For instance, one customer indicated that they purchased services separately and not in packages. Another, as mentioned in recital 95, stated that they would consider purchasing services separately if faced with a price rise for packages.

(89) In seeking to verify the relevant market definition, the Commission also investigated what would happen if the prices for packages of GTS were uniformly increased by 5 to 10 %. (This helps to predict whether customers would switch to other products and so determine whether these other products are part of the same market). As stated in recital 76, customers do not rank price considerations as one of the main deciding factors when choosing a supplier. This applies *mutatis mutandis* to the choice between purchasing basic services and self-provisioning enhanced services on top of these basic services and purchasing such services in tailored packages. Only one respondent said that if the price of packages increased, they would evaluate the possibility of buying individual services and bundling them internally. The remaining respondents pointed out that they would not expect price increases or that they would accept such a uniform price increase because they had no choice — they required the services.

(90) To identify a specific line of services as a separate relevant market would be contrary to the economic rationale of the functioning of the market. Firstly, as explained in recital 77, each of these services is built on similar basic elements that are available to the main suppliers. There is therefore some supply-side substitutability from one line of service to another. Secondly, customers establish needs that may be met in a number of ways involving various service lines. Customers may also require additional functionalities or services in the course of a contract that require the use of some other service lines. The relevant product market should therefore be centred around the central network elements (i.e. data protocols) and the other features of GTS. These data protocols are the fundamental element over which the other, more sophisticated, GTS services operate.

(91) The individual services can be subdivided into different groups where there is some substitutability of services within these groups. However, this substitution is not perfect between the different services in the overall range of services, but rather the customer appears to be looking for a package which can meet its needs. Different market participants may offer solutions based on different services for the same customer requirements.

(92) Respondents in the Commission's investigation generally agreed with the product categorisation provided by the Commission based on the listing of telecommunication services provided by the parties. However this was subdivided in different ways by different competitors when they sought to analyse whether the market was narrower. In addition, a third party argued that other

([26]) IV/JV.15 — BT/AT&T of 30 March 1999.
([27]) IV/M.1396 — AT & T/IBM Global Network.

services such as X.25, global software defined networks, managed bandwidth, IP services (web hosting, value-added IP services, managed IP, global messaging, caching) and VSAT (very small aperture terminals) were also part of the services which should be included in the product market definition.

(93) The Commission asked for the views of competitors and customers on the product market definition. There was almost universal agreement on the scope of the products included in the market, but certain differences with regard to specific elements.

(94) Two respondents believed that there was a distinct market for a very top-level of customers, which distinguished it from other customers. One respondent characterised this market as where the customers concerned operated on a global basis and required a basket of services over a global private network which could connect all the company's sites. However, it is difficult to isolate such a specific group of companies who require such a service offering. The nature and distribution of any one company's sites is different from every other company, for example the density of the network may be much greater in one country where a company has a large distribution network than the neighbouring one where it has only manufacturing facilities. Company acquisitions can change that market very quickly. In practice, all the market participants in the market for global telecommunications services (GTS), as identified in recitals 206 to 218, can serve both the narrow set of globally based companies as well as those companies who have network requirements across a smaller number of borders. The latter set of companies may have other local suppliers who can provide part of their needs, but only the true global players can provide them with their global network.

Self-provisioning and outsourcing

(95) Customers who choose to self-provide their GTS needs will buy certain elements from within the elements which are contained in packages of GTS services. However, the self-provision in itself does not constitute part of the market as defined above in recital 86. Moreover, as noted in the BT/AT & T decision, to self-provide is a strategic choice. Customers who choose to purchase packages are unlikely to return to self-provision, though this is not impossible, as the costs of switching back and building up the in-house resources and expertise to run the services will be high. Only one customer provided a concrete example of insourcing of raw bandwidth, which was done in one country only. It had been explicitly rejected as an option for a Europe-wide service as insourcing was not scalable to a Europe-wide level, let alone globally. Other customers explicitly rejected the possibility of converting back to an in-house network, except for special services. A similar argument applies to outsourcing, where not only is the network supplied externally, but the staff who operate the network also work for the supplier. For the customer to return to some form of self-provision would be even more difficult under those circumstances. Neither of these activities can therefore be considered to be part of the relevant market.

Conclusion

(96) The Commission's investigation confirms that the BT/AT & T market definition was correct and made more precise by the identification of the distinction between the basic data protocols and the higher value-added services which operate over those protocols.

C. *RELEVANT GEOGRAPHIC MARKET*

TOP-LEVEL OR UNIVERSAL INTERNET CONNECTIVITY

(97) The Commission found in the WorldCom/MCI decision that the market for provision of top-level connectivity was global. The parties have not disputed this per se and they acknowledge that there is a global demand for connectivity. However, they allege that there is increased regional (European) demand and that the market is not hierarchical. This was also re-stated in the parties' reply to the statement of objections. However, this is contrary to the findings of the Commission in this procedure. The Commission's market investigation has confirmed that the demand for Internet connectivity continues to be universal in scope and despite increased regional content and the entry of a number of new entrants, and the use of mirroring, caching, etc., second-level ISPs remain dependent on a limited number of top-level network providers for global connectivity. Although the majority of top-level network providers that have emerged so far have their centres of operations in the United States, they are the only providers who can provide transit to all parts of the Internet. Given the Internet's hierarchical structure, a rise in prices for access to the top-level networks would affect consumers everywhere in the world. There is thus effectively one global market.

GLOBAL TELECOMMUNICATIONS SERVICES (GTS)

(98) The Commission found in the BT/AT & T decision that the market for the provision of GTS is worldwide. In their notification, the notifying parties agree with this definition. This market definition is also largely confirmed by third parties. One third party has suggested that certain European companies will generally turn to a European provider first for some services, and would only turn to US-based providers if the price were to increase by 5 to 10 %. However, the lists of suppliers provided by customers confirm the view that it is the global players who are regarded as the principal suppliers of GTS.

(99) Accordingly, the Commission has based its analysis on the global geographic market definition identified in recital 98, which it used in the BT/AT & T analysis and because there is no evidence in the investigation which challenges that existing definition.

D. *ASSESSMENT*

TOP-LEVEL OR UNIVERSAL INTERNET CONNECTIVITY

Publicly available statistics of market shares

(100) In the WorldCom/MCI decision, the Commission found that the combination of MCI's and WorldCom's Internet activities would have led to the creation of a dominant position in the market for top-level connectivity. MCI WorldCom's current Internet activities were contributed by WorldCom after the Commission accepted the divestiture of MCI's Internet business as a condition for the merger between MCI and WorldCom to be cleared. MCI and WorldCom were at the time of the Commission's decision the market leaders with a combined market share in the region of around [30 to 40]* % for the former WorldCom Group and [10 to 20]* % for the former MCI Group. Sprint was at the time found to be the second largest top-level network provider with a market share in the range of 10 to 15 %.

(101) The parties argue that, as stated by the Commission in the WorldCom/MCI decision, there is no reliable publicly available estimate of the size of either the Internet sector as a whole or any relevant subsector and there is no consensus on a preferred unit of measurement. Further, as was noted by the Commission in the decision, the parties argue there is no specific reporting obligation on ISPs in relation to Internet revenues and no consistent reporting. Accordingly, the parties are not able to provide an accurate estimate of the size of the Internet sector or a measure of the market. Even Internet revenues, which MCI and WorldCom advocated as the appropriate tool to measure market shares in the WorldCom/MCI decision may, according to the parties, easily be inaccurate. Traffic flows, as used by the Commission in the WorldCom/MCI decision, would have even greater shortcomings and cannot be accurately measured from a technical viewpoint, given the lack of generally accepted measures. […]* However, Sprint estimates the top-level network providers market shares based on revenues in 1999 at [35 to 40]* % for MCI WorldCom, [10 to 15]* % for AT & T, [less than 10]* % for Sprint and, for Qwest, [less than 5]* % ([28]).

(102) The parties submitted a number of publicly available sources that provide estimates of market shares ([29]). According to these sources, MCI WorldCom and Sprint's market shares are estimated from a minimum of 17 % and 3 % respectively to a range of 21 to 45 % and 13 to 21 % respectively. The estimates relating to the 17 % and 3 % shares are based on Internet service providers' revenues and share by vendor. These should however be excluded given that they include companies such as AOL and MSN that are not present in the relevant market as they do not own any networks providing top-level connectivity. This leads to combined market shares in the region of 34 % to 55 %. Also, estimates by independent third parties provided by the parties, place the merging parties market shares between 20 to 25 and 13 to 20 % for MCI WorldCom and Sprint respectively and the merged entity to between 34 to 45 % ([30]). These market shares are also in line with figures provided by respondents to the Commission's

([28]) […]*.

([29]) TeleGeography 1999, *The World's Top ISPs (winter 1998-99)*, p. 122; International Data Corporation, *Internet Service Provider Market Review and Forecast*, p. 17; Cahners In-Stat Group, *Show Some Backbone: ISPs Report Increasing Demand and Shifting Vendor Preference*, p. 7; Boardwatch, December 1999; Datamonitor, *The Future of the Internet; Hearing on the MCI WorldCom-Sprint Merger Before the [US] Senate Committee on the Judiciary*, Exhibit 3 (4 November 1999) (testimony of Tod A. Jacobs, Senior Telecommunications Analyst, Sanfor C. Bernstein & Co., Inc.), Bernstein Research, *MCI WorldCom*, March 1999, p. 51; OECD, *Internet Traffic Exchange: Developments and Policy*, DSTI/ICCP/TISP(98)1/FINAL, pp. 22 and 58-59.

([30]) Credit Suisse First Boston, Morgan Stanley Dean Witter and Bear Stearns.

market investigation ([31]). The size of the merging parties traffic-flows should also be linked to the merged entity's global network (capacity). MCI WorldCom's Internet division UUNet has 'over 2 000 POPs, 500 of which are outside the United States. This is bigger than any other IP network on the planet by at least a factor of 2 and bigger by a factor of 4-5 than most of the IP backbones around the world' ([32]). In addition, UUNet has a very large modem bank that serves wholesale dial-up customers […]*.

Commission's estimates of market shares

(103) Market participants are those equipped with a set of peering agreements that provide them with 100 % settlement-free connectivity across the Internet. Identifying these market players involves reviewing all peering and transit connections between Internet connectivity providers and isolate those who only get their connectivity either from their customer base or from peering agreements with other networks. Given the quality issues raised by public interconnection points, it is likely that only those who peer privately with other networks are really able to obtain top-level connectivity.

(104) Many of those consulted during the course of the Commission's investigation mentioned the same five top-level networks (MCI WorldCom, Sprint, AT & T, Cable & Wireless and GTE) as having a position stronger than all the others. Accordingly, the Commission reviewed the peering agreements involving these key players to determine a list of candidates for top-level connectivity providers. As the disclosure of peering relationships raises confidentiality issues, the Commission selected those companies who peer with both MCI WorldCom and Sprint to determine who might be regarded as a top-level provider. This examination led to identify the following companies as market participants: […]*.

(105) However, a third party proposed its own list of top-level connectivity providers by measuring the number of routes available to access their networks. If these networks could be accessed directly rather than through a third-party network, then they would be added to the list. The examination of this list showed some discrepancies with the list of those who peer with both the MCI WorldCom and Sprint networks. Companies that did not feature on the third-party list were not withdrawn from the universe of market participants while those included but not peering with both networks were added. This led to the addition of the four following companies: Exodus, Digex, Abovenet and Epoch. Overall, the analysis led to a universe of 17 networks (or groups of) participating in the market for top-level Internet connectivity.

(106) Any other Internet connectivity provider not featuring on this list has to purchase transit services from at least one of the top five providers. Failure on the part of a network to peer with at least the five main players as a minimum would imply a substantial absence in their coverage of the Internet as a whole. It is possible that the number of participants who are true top-level networks is actually smaller than the field of those who peer with Sprint and MCI WorldCom. Some of those identified may receive their connectivity through public peering arrangements which do not enable them to provide the best quality connectivity. Also each additional peer, while of course peering with the original two, may not peer with each and every other peer who also peers with these two. To that extent, they may not have complete ability to cover the entire Internet on a settlements-free basis. However, for the purposes of assessment it was assumed that anyone with global peering connections to MCI WorldCom and Sprint would be considered a desirable peer by anyone else who had the same connections. This assumption runs in the parties' favour by widening the field of market participants.

(a) **Market shares based on traffic flows**

(107) The parties have argued that traffic-flow measurements have great shortcomings. Traffic-flow measurements measure traffic passing through specific parts of the network at specific points in time and, because IP routing is dynamic, the same information sent between two hosts may not always travel over the same networks. Moreover, because traffic flows through more

([31]) Bell Atlantic has estimated the merged entity's market share at between 50 to 70 %, Cable & Wireless estimates MCI WorldCom's share of global Internet traffic at 50 % and Sprint's at 18 % in 1998.

([32]) *WorldCom: Still a Cool Company*, Salomon Smith Barney, 7 February 2000, p. 2.

than one network from source to destination, estimating the total amount of traffic by aggregating the amounts served by each backbone inevitably involves double counting. Therefore, because the amount of double counting will differ between backbones, market shares based on traffic estimates can be misleading.

(108) The parties also argue that traffic-flow estimates may reflect the particular architecture of the network involved. A backbone provider with many nodes may generate a small amount of backbone traffic when compared to one with few nodes, simply as a result of the network architecture it employs. This is because a node may directly route traffic to all end-users reached through that node and send to the backbone only traffic intended for destinations reached through other nodes, and may count only the latter as backbone provider.

(109) However, as market power may be derived from the overall size of a given network, it can be argued that market shares measured on the basis of traffic flows is a more accurate proxy to estimate market power.

(110) There are no statistics directly available on the overall traffic volumes sent or received by networks. Accordingly a 'bottom-up' approach had to be adopted in order to calculate market shares based on traffic. This requires the identification of market participants and the addition their respective measurements of traffic flowing through their networks in order to obtain the size of the market. However it could not be established with certainty that all measurements of traffic flow were made on an entirely consistent basis by the market participants concerned. An alternative way to calculate the traffic-based market shares had therefore to be devised.

(111) The total traffic flow of any given network includes the traffic exchanged with other identified networks and its internal traffic (that is, the traffic between customers exchanged over this network). The market shares can be calculated using traffic ratios without necessarily having to have as an input the total Internet traffic flow, according to the following methodology. The ratio of the market share of network A to the market share of network B, is equal to the ratio of total traffic flowing through network A to total traffic flowing through network B. If both terms of this ratio are divided by the total traffic exchanged between networks A and B, it follows that the ratio of market share of network A to the market share of network B is equal to the ratio of the relative share of network A in the total traffic flowing through network B to the relative share of network B in the total traffic flowing through network A. Therefore the market shares can be calculated on the basis of the relative shares of each network in the total traffic going through each network. Relative shares can then be calculated for each network using only the traffic statistics generated by this network. This avoids the need to add together measurements by various networks to estimate market-shares. This also prevents the market-share calculation being biased by possible differences in measurement methodologies from one network to another.

(112) From the data obtained from the top five networks, it was possible to deduce the relative shares for each of these networks of traffic exchanged with the other four networks and with its other peers. When a company owned a number of networks and some of these would purchase transit while others would peer, all traffic was aggregated and considered as peering traffic. This assumption is beneficial to the parties since this is mostly the case with their smaller competitors.

(113) Combining the relative share of traffic exchanged between network A and B from A perspective and then from B perspective provides a ratio of the market shares of network A and network B. This method can also be applied to networks A and C and then to networks C and B to get another estimate of the ratio of the market shares of network A and network B. The Commission applied that approach to each of the top five networks and obtained the following table of ratios for the purpose of the statement of objections ([33]):

	Ratio of size of network X to the size of the MCI WorldCom network
GTE	[...]*
Sprint	[...]*
C&W	[...]*
MCI WorldCom	[...]*
AT & T	[...]*
Total	[...]*

(114) When applying this methodology to a hypothetical market comprising MCI WorldCom, Sprint, Cable & Wireless, GTE and AT & T (this corresponds to the relevant market defined by Sprint in their submissions on the WorldCom/MCI merger in 1998), their respective market shares would leave MCI WorldCom group 46 to 51 % of such a market, with Sprint bringing an additional [10 to 20]* %, or [56 to 71]* % in total.

([33]) These ratios are provided in ranges in order to protect the confidentiality of the information provided by third parties.

(115) To calculate market shares on the basis of the universe of 17 potential top-level networks, assumptions had to be made for the size of the remaining 12 networks. The general assumption, in line with the revenue figures, was that the traffic flowing through one of these networks could not be greater than the traffic flowing through any of the top five networks. Given the ratio of total traffic flowing through the smallest of the top five top-level Internet connectivity providers compared to MCI WorldCom traffic is […]*, the ratio of the aggregation of the remaining 12 networks cannot be more than 12 times […]*.

(116) On this basis and assuming that these 12 networks are not of similar sizes, the total traffic flowing through the 12 networks should be equivalent to MCI WorldCom traffic. The market-share estimates give the MCI WorldCom group some 32 to 36 %, with Sprint bringing an additional [5 to 15]* % and no competitor having more than 10 to 15 %. The combined market shares of Sprint and MCI WorldCom is then in a range [37 to 51]* %. This leads to the following market shares:

	Ratio of size of network X to the size of the MCI WorldCom network	Market shares
GTE	[...]*	[0-10]* %
Sprint	[...]*	[5-15]* %
C&W	[...]*	[0-10]* %
MCI WorldCom	[...]*	[32-36]* %
AT & T	[...]*	[5-15]* %
Others A	[...]*	
Others B	[...]*	

(117) Even if it was assumed that the total volume of traffic going through the 12 other networks is equal to twice that of the MCI WorldCom group (which, as seen in recital 115, is impossible since their overall size cannot be more 1,8 times the size of MCI WorldCom) then the combined market share of the parties would still be in the order of 32 to 35 % and [up to]* three times bigger than the following network.

(b) **Estimates of market size and share based on revenue figures**

(118) On the basis of the above, a total of 17 Internet connectivity providers would have fallen within the definition of a top-level network. As to the total size of the market, the information available was not comprehensive, and estimates had to be made in respect of the turnover of two firms for which accurate figures were not available ([34]). Revenue for each of the two firms concerned was estimated at USD 100 million each, which was believed to be a considerable over-estimate of their actual revenues.

(119) Market shares were calculated in the statement of objections on the basis of two alternative methods. The first took into account the total Internet revenues (including dial-up, dedicated access, hosting, collocation and others). That led to a market size of approximately USD 6 500 million and to market shares of respectively [40 to 50]* % and [5 to 15]* % for MCI WorldCom and Sprint. Only one other player (AT & T) had a market share between 10 to 15 % and two had market shares in the 5 to 10 % range (C & W and PSINet). All of these revenues are linked to the provision of Internet connectivity. […]*. Similarly provision of dial-up generates traffic, increases the customer base and therefore the market position.

(120) The second method took revenues earned from the provision of dedicated access revenue. The advantage of this method is that it uses only connectivity provisioning revenues, even if it does not cover all connectivity provisioning revenues. However, respondents were not always able to break down their Internet revenues and this approach excludes revenues earned from dial-up. In any event, since this method does not include all relevant Internet revenues, it can only be used as an additional indication of market shares. In the case of firms for which dedicated access revenue figures were not available, these figures were set at the level of one third of the total Internet revenues. This is consistent with the ratio of such revenues to the total Internet revenues of both notifying parties ([…]* and […]*). If such revenues were assumed to be half of total Internet revenues that leads to a combined market share of [30 to 40]* %. On this basis MCI WorldCom's share was [15 to 25]* %, and Sprint added some [5 to 15]* %, giving the combined group some [20 to 40]* % of the market. The three nearest competitors had market shares in the range 10 to 15 %.

([34]) Most of the information used to calculate market shares on the basis of revenue and traffic was provided by the notifying parties and third parties to the US Department of Justice in response to civil investigation demands through the granting of waivers of confidentiality to both competition agencies.

(121) Although the parties repeatedly stressed their belief that revenue figures were the only reliable indicator of market share in this area, many other competitors pointed to the possible dangers of over-reliance on revenue data alone. Although figures based on revenues from basic Internet access were used wherever possible, the companies concerned are under no obligations as regards reporting standards or even disclosure of data. Consequently it was necessary to treat the figures with caution.

(122) Firms which are peered with up to four of the main providers have little claim to be regarded as top-level networks, as a failure to peer with one of the top five indicates a substantial shortfall in their ability to provide Internet connectivity. However, for the purpose of undertaking a sensitivity analysis, market-share estimates were made to see whether the addition of such players not already included in the list of market participants would cause any significant alteration to the figures. On such a basis (which it must be stressed is extremely conservative) combined market shares of [35 to 45 %]* in total Internet revenue terms were still recorded for the notifying parties.

(c) **Conclusion on the calculations of market shares**

(123) On the basis of market shares calculated on the basis of traffic flows as well as revenues, the merged entity's market share would amount to between [37-51]* % based on traffic exchanged ([35]) and [30 to 65]* % based on revenue. The market share of the next competitor is never higher than 15 per cent. Irrespective of the methodology used, the Commission's investigation shows that the merged entity will have market shares based on revenue more than three times higher than its closest competitors and four times as to market shares based on traffic. These results remain robust even under the implausible assumption that the combination of the 12 smaller top-level entities would be the twice the size of MCI WorldCom.

(d) **The parties' response**

(124) In their response to the statement of objections, the parties alleged that the Commission's market-share estimates were too broad and that at the low end of the range the market-share gives rise to no competitive concerns. The estimates of both the Commission and third parties also demonstrate that MCI WorldCom would have lost substantial market share since 1998. Moreover, the parties questioned the use of revenue and traffic measurements in this case since they argue that the methods are likely to overstate the market share of the merged entity.

(125) According to the information available to the Commission at the time of the statement of objections, MCI WorldCom's market share based on total Internet revenue is [40 to 50 %]* in a market comprising 17 top-level connectivity providers ([36]). This should be compared to a [35 to 45 %]* market share in 1998 for WorldCom. Despite the fact that the assumptions used by the Commission in the current procedure are more generous to the parties compared to the assumptions made in the WorldCom/MCI decision in 1998, it can be concluded from the above that MCI WorldCom's market share based on total Internet revenues has increased since 1998.

(126) However, after the issuing of the statement of objections, the parties informed the Commission that an additional USD 110 million should be added to MCI WorldCom's North American dedicated-access revenue. As a consequence, MCI WorldCom's market share calculated on the basis of dedicated access revenue would increase from an initial [20 to 30]* % (see above in recital 120) to [25 to 35]* %. This would give the merged entity a combined market share of [35 to 45]* %.

(127) Furthermore, MCI WorldCom's market share based on traffic flows amounted to [32 to 36]* % compared to a [30 to 40]* % market share in 1998. The 1998 market share was based on fewer (16) top-level providers.

(128) In their reply to the statement of objections, the parties alleged that the Commission had made mistakes in its spreadsheets and that the methodology used by the Commission to calculate market shares on the basis of traffic flows was flawed. The Commission submitted to each of the three third-party backbones cited in recital 113 all computations made on the basis of information they supplied and asked them to state whether their data was reproduced accurately and whether they believed that the methodology followed by the Commission was sound. Each of the third parties noticed some clerical errors but also declared the data to reflect accurately their measurements and their agreement with the methodology used by the Commission. When re-calculating market shares taking into account all the clerical errors brought to its attention by the notifying parties and third parties, the Commission found minimal variations (less than half a percentage point) in the estimated market shares.

([35]) This market share would amount to approximately [30 to 40]* % if assumptions extremely favourable to the parties were made.

([36]) In 1998, the merged entity's combined market share was estimated at [45 to 55]* % ([35 to 45]* % for WorldCom and [5 to 15]* % for MCI) MCI's Internet business was later divested to Cable & Wireless.

Impact of the merger on competition

(a) **Current market characteristics**

(129) There are indications that MCI WorldCom today has a very strong market position that does not necessarily translate into a single dominant position in the market for top-level connectivity. However, it is clear that MCI WorldCom is close to achieving such position. Already in 1997, MCI WorldCom's UUNet had a substantial market share compared to its competitors. This was evidenced by its decision in early 1997 to attempt (an attempt that ultimately failed) unilaterally to cease peering with a number of existing peers.

(130) Since the merger between MCI and WorldCom, MCI WorldCom has been able to maintain its number one position and it is perceived by many competitors as close to being dominant. This is confirmed by the fact that MCI WorldCom is able to demand significantly higher prices (20 to 100 %) than any of its competitors and Sprint and at the same time sustain its leading position […]* ([37])[…]* ([38])[…]* ([39]). Nevertheless, for the purpose of this transaction the issue of MCI WorldCom's single dominance can be left open given that the investigation has shown that the merger would create a dominant position.

(131) The parties have contested the existence of a price differential with their competitors notably by explaining that AT & T charges prices similar to those of MCI WorldCom. However, significant price differential can be found as soon as the comparison is extended to other market participants apart from AT & T.

(132) The information provided by the merging parties also shows that between [40 to 80]* % of both parties' traffic is internal traffic (i.e. traffic not exchanged with peers). No other competitors show any higher percentage of internal traffic than 30 to 35 %. Furthermore, even the three largest competitors of the merging parties exchange more than 15 % of their traffic with the merged entity. This shows that the merging parties are much more independent than their competitors and that their competitors' reliance on the merging parties already today is significant. It also shows that the merger removes one of MCI WorldCom's strongest competitors. These figures also underline the importance of a customer base.

([37]) […]*.
([38]) […]*.
([39]) […]*.

(133) This is also confirmed by the figures provided by the parties concerning their percentage of multihomed customers. […]*

(134) The strength of MCI WorldCom and, to a lesser extent, of Sprint is contrasted by the evolution of Cable & Wireless. This network is the result of the divestment of the MCI Internet network in 1998. Its internal traffic relative share has decreased since the divestiture and its market position has degraded. The reasons for that degradation are probably multiple but include the perception by the market place that the transfer was not entirely complete and that the service offering had been degraded.

(135) The comparison of the levels of internal traffic among top-level Internet connectivity networks also underlines the already existing imbalance of size and dependence among market participants. The other networks source a much lesser extent of their connectivity from their customers and therefore depend much more on their peering arrangements (notably with MCI WorldCom and Sprint) to be able to offer universal connectivity than MCI WorldCom and Sprint do.

(136) It is generally acknowledged by respondents to the Commission's investigation that the merged entity's large network and its access to the largest number of hosts and customers as well as key Internet sites is essential to their own performance since their customers would demand connectivity to the merged entity's network. Given that the merged entity would have the largest number of customers it can also provide connectivity to the greatest part of the Internet […]* ([40]) […]* ([41]).

(137) It has been argued that being facilities based is not important and that there is an abundance of capacity to lease. Firstly, this is contrary to MCI WorldCom's own predictions ([42]) […]* ([43]). The Commission's investigation has also shown that even though the cost of transit has fallen substantially, especially in Europe during the last years, the transit costs have not always fallen as much as the cost of leasing infrastructure. Thus, Internet connectivity carries a premium. That premium is greater for the larger, established networks, with the greater number of routes. In order to circumvent the expense of leasing capacity or paying for transit, larger European ISPs have now laid their own circuits to the USA to reduce their costs for transit. However, they are still purchasing transit from the top-level connectivity providers in the USA.

([40]) […]*.
([41]) […]*.
([42]) John Sidgmore at Spring Internet World 2000, *UUNet chair says industry concerned over capacity*, Reuters, 4 April 2000.
([43]) […]*.

(138) The parties also allege that having a large network is no guarantee of quality. This is contrary to the result of the Commission's investigation as well as information submitted to the Commission by the parties […]* ([44]). As stated above, the importance of private peering has been shown by the requirement of large corporate clients for private peering points ([45]) since this increases reliability of interconnection. Given that only the largest top-level connectivity providers have private peering arrangements with one another the size of the network and its architecture effects reliability […]* ([46]). The Commission's investigation has also shown that the quality of service offered already today by UUNet through its service level agreement (SLA) guarantees a latency rate much lower than any of its competitors. Thus, in addition to its customer base, the merged entity would also have one of the largest networks with reach in at least […]* countries and a service level so far unrivalled by its competitors.

(b) **Impact due to the growth of the Internet since 1998**

(139) The Internet has experienced unprecedented growth over the past years. According to the parties the rapid growth has led to significant new entry to the market and increased supply that puts a competitive constraint on connectivity providers. In addition, the increased use of multihoming and content delivery services would have shifted the traffic away from the top-level networks to smaller networks. More importantly, there would have been a change in traffic flows from being US-centric to become more regional, in particular European, due to increased network supply and local content in other parts of the world.

(140) Nevertheless, as acknowledged by MCI WorldCom's Vice Chairman John Sidgmore, it is likely that connectivity providers will not be able to increase capacity to meet the increasing demand. Given that more people are connected to the Internet with faster computers and local high-speed connections they are also sending more data to the backbone networks. Increased use of e.g. multimedia applications also adds to the traffic. 'UUNet see demand increasing by eight to 10 times so we need to increase capacity by 800 to 1000 per cent just to meet current usage'. He acknowledged that he was concerned about not having enough network space to handle the growing demand ([47]).

(141) However, contrary to what is alleged by the parties the rapid growth in Internet traffic has not hindered the merging parties from sustaining significant market shares in the market for the provision of top-level or universal connectivity. In particular, contrary to the views of the merging parties this has not led to a reduction in concentration of the top-level network providers. Even though there has been substantial and significant entry of Internet access and network providers, the market investigation has shown that there is still a limited number of top-level (universal) connectivity providers. This is due to the high barriers to entry into this market. Universal connectivity can only be obtained on a settlement free basis if the network in question has a sufficient customer base and sufficient geographic reach. As the top-level networks grow with the Internet, it is getting ever more demanding for third parties to match their size to be able to peer with them.

(142) The majority of the new Internet providers entering the market are small local or regional access and network providers that purchase transit for universal connectivity from the top-level providers. In addition, the top-level connectivity providers that have entered the market (Cable & Wireless and AT & T) have entered the market by acquisition of existing networks (Cable & Wireless bought MCI's Internet business after the merger between MCI and WorldCom and AT & T bought IBM's Global Network (IGN) business) but have nevertheless not been able to take any significant market shares away from the merging parties.

(143) Even though the parties have argued that the market has become less US-centric and that there has been a huge increase in European content, the parties themselves have identified the 50 most significant websites worldwide to be US-based websites. This is also consistent with the Commission's finding that despite increased European content there is a strong demand from European end-customers to have access to US websites. As a consequence, even though there has been a diminution of the traffic originating in the EU going to the US, still between 50 to 80 % of the traffic originating in the EU is to the USA. It is also clear from the Commission's investigation that in order for European Internet access and network providers to provide such services to their customers, and contrary to what the parties allege, even the larger European providers are still relying on transit from one or more top-level connectivity providers in order to provide their customers with services.

([44]) […]*.
([45]) See recital 23.
([46]) […]*.
([47]) John Sidgmore at Spring Internet World 2000, *UUNet chair says industry concerned over capacity*, Reuters 4 April 2000.

(144) The Commission's investigation has also shown that despite increased use of multihoming and distributed content services, there has been no real impact on the market shares of the top-level connectivity providers. This given that all new entrants and users of these techniques, irrespective of whether they are European or based in the USA, need to purchase connectivity from the top-level connectivity providers.

(c) **Market characteristics post merger**

(145) The merger between MCI WorldCom and Sprint will lead to the creation of a top-level network provider that through its sheer size would be able to behave to an appreciable extent independently of its competitors and customers. Given the global scope of the market, this will impact consumers in Europe as much as any other consumers.

(146) The merger will create a super-tier provider of global Internet connectivity. It will have an inherent strong position due to its absolute and relative size compared to its competitors. Given the size of the merged entity, it will be able to control the prices of its competitors and customers. It will also be in a position to control technical developments. The combined entity will be able to sustain such behaviour due to its capacity to discipline the market notably through the threat of selective degradation of its competitors Internet connectivity offering (see recitals 152 to 164) and also through its essential ability to determine and agree any new technical development to enable advanced Internet services (see recitals 147 to 151).

1. *Ability to control technical developments*

(147) The network of the merged entity will enable it to provide services of a quality that its competitors may have to agree with the merged entity to be able to duplicate. This will become increasingly important for new advanced Internet services. In order to send voice over IP or video images over the Internet the data transmitted needs to be compressed before it can be transmitted over an Internet network ([48]).

(148) The technique of packet switching ([49]) sends the data over the most efficient available route (not necessarily along the same route). In order to have a good quality of service, it is important that all the data is reassembled in the correct order and at the desired time. If there is no agreed manner of giving certain types of data priority as they pass over the Internet, there is the inherent risk that the picture or audio sound will only be transmitted to the user's computer once all the packets have arrived (leading to delay) or perhaps be transmitted in an incomplete form.

(149) In order to provide quality of service for advanced Internet services, such as voice over IP, video conferencing and Internet banking, the reliability of the connection is very important. In order to ensure quality of service, Internet connectivity providers have to agree to a standard (a protocol) that will guarantee quality of these services when passing through different networks. Currently no agreed protocols exist for such services. The merged entity would therefore be in an ideal position to develop standards for such services that would be offered either only on their network or at a much better quality on their network unless its competitors agree to certain conditions. Due to the merged entity's absolute and relative size they would be able to dictate the conditions for such future quality of standards. This is also confirmed by the parties' own submissions […]* ([50]).

(150) A combined MCI WorldCom/Sprint would have more than [40 to 80]* % of its traffic staying on-net. All other networks have internal traffic of no more than 32 %. Other top-level Internet connectivity providers will exchange around 20 % of their total traffic with the combined entity while the traffic exchanged with other top-level providers would represent less than [0 to 5]* % of the combined entity's total traffic.

(151) Key new drivers of traffic on the Internet such as voice over IP, live video conferencing and advanced e-commerce solutions are only available when adequate levels of quality of service can be obtained throughout the networks across which such services travel. This is the case with the QoS that can be obtained by keeping all the traffic 'on-net', i.e. on a single network end-to-end […]* ([51]). In addition, when traffic travels across a peering point, there is the inherent risk of loss of 'the package(s)' and delays which jeopardise the possibility of providing these services. The merged entity's high percentage of 'on-net' traffic will increase its incentives to degrade interconnection and reduce its incentives to support cross-network QoS standards to reinforce the attractiveness of its own network.

([48]) The analogue audio signal must first be converted into a digital signal in order to be transmitted over the Internet. After being digitised, it is compressed and transmitted. The quality of the signal will depend on the number of bits used to encode it.

([49]) Packet switching is the method used to move data around the Internet. In packet switching, all the data is broken up into smaller packages. Each package has the address of where it came from and where it is going. This enables the packages of data from many different sources to co-mingle on the same lines, and be sorted and directed to different routes along the way. This enables Internet connectivity providers (and their users) to use the same lines at the same time.

([50]) […]*.

([51]) […]*.

2. *Ability to raise prices*

(152) Given its combined size and importance of internal traffic, the merged entity will also be able to increase the relative price of its customers connections. The parties would not be constrained by competitors as the latter would be exposed to the threat of selective degradation. The combined entity will be in a unique position to control the quality of its own connections as well as the connections of its competitors and customers. This given that the merged entity will only rely to a limited extent for connectivity on its competitors compared to other top-level Internet connectivity providers.

3. *Ability to discipline the market*

(153) It could be argued that since 'everybody needs global connectivity' and also since the merged entity will be dependent on its competitors to achieve this, the merged entity could not afford anticompetitive behaviour. However, as a result of the merger, the merged entity will be in a position to discipline the market by the mere threat of selectively degrading the connectivity of its competitors. This will allow it to control both actual and potential competitors as well as customers in this market.

(154) A non-dominant network would need its competitors and their customer base too much to risk degrading the quality of its connectivity offering. A degradation of the peering interface between two competitors of equal sizes would be detrimental to both connectivity providers. These two networks would see the quality of their offerings degraded to the extent their connectivity depends on the other network in question. In response to such a degradation, the customers of both networks would likely switch to other providers. When there is imbalance in the size of the two networks, the bigger network depends less on the smaller one in order to source connectivity than the smaller depends on the larger. A degradation would then have greater effects on the smaller network than on the larger one since the smaller network is more dependent on the dominant network for global connectivity than the dominant is on the smaller ones.

(155) However, unless the degradation is so small that it becomes unnoticeable by the customers of the larger network, or it is off-set by specific advantages of this network (such as its absolute size and the extent to which it provides connectivity from its customers), the larger network would still see its connectivity offering become less competitive than other non-degraded networks. Pre-merger, it is not sure that either MCI WorldCom or Sprint had reached the level of imbalance in sizes of their Internet network compared to their networks that would have put them in a position to degrade profitably the peering connections with their competitors. However, the merger of MCI WorldCom and Sprint's Internet activities will create a situation post-merger where the merged entity will have a network of such absolute [30 to 55]* % of the Internet and more than [40 to 80]* % of its traffic remaining on-net) and relative size ([several]* times bigger than the second in the market) that it will be able to behave independently of its former peers by selectively degrading the connectivity quality of its peers. The mere threat of such degradation will allow the merged entity to control both the technological developments in the market as well as the prices of its competitors.

(156) If the merged entity decided to decrease the capacity at private peering points (which is the main point of interconnection between top-level connectivity providers), or rather not increase the capacity in accordance with demand, the degradation would not be immediate for other top-level providers or customers of the merged entity. But it would have an immediate effect on the targeted competitor and its customers. According to third parties, competitors and customers, as well as the parties' internal documents, the customers are demanding high levels of quality. The reaction of the degraded networks customers would thus be to try to find an alternative to the degraded connectivity provided by the degraded network, either through multihoming and/or moving from the degraded network.

(157) First, the Commission's investigation has shown that multihoming is used as a back-up and for redundancy and to ensure global connectivity. The Commission's investigation has also shown that direct access to customers improves the quality of service (i.e. less latency and less risk of loss of 'packages'). Thus, the merged entity's customers would have no economic incentive to switch the bulk of their traffic to the degraded network when they can continue to be customers of the merged entity which provides them with direct connectivity and direct reach to a larger customer base. The same argument is valid for the customers of the degraded top-level competitor. When comparing the quality of service being offered by the merged entity to its competitors also these customers would find it more beneficial to switch a bulk of their traffic away from the degraded network to the merged entity. In addition, the mere threat (possibility) of the merged entity also degrading other competitors' networks would mean that customers of the degraded network would be likely to choose the merged entity over other competitors since the merged entity will have by far the largest network and will be able to guarantee direct access to the largest number of customers. Nevertheless, even with substantial multihoming, degradation would cause a movement of traffic to the dominant network from other top-level networks and increase the advantage over other providers of top-level connectivity in the number of customers served. The end result would likely be that the former top-level competitor becomes a customer of the merged entity since it would no longer qualify for peering.

(158) Secondly, to enter into an extensive peering and transit policy would impose additional burden on the competitor since new and additional agreements would have to be entered into. This would be both time-consuming and costly. Even more importantly, the service level (quality) of the connectivity would drop even further given that the traffic would no longer go directly to the merged entity's customer but would have to pass through other networks. Contrary to the parties' submission, passing through a large number of hops will affect performance quality and create delays (latency increases with the number of hops) […]* ([52]) […]*. Despite this statement from Sprint, the relationship between the number of hops and the quality of the service offered was contested by the parties in their reply. However, third parties provided evidence to the contrary of the parties' argument at the oral hearing. This in turn would lead the degraded network's customers to find the larger network more attractive. The degraded network would also find it more difficult to regain the confidence of its lost customers.

(159) Additionally, the merged entity could degrade the connectivity to its competitors (other top-level connectivity providers) unless these competitors accept settlement charges (either paid peering or transit). The affected competitor would then have to pass the new charges on to its customers and they in turn their customers. Given the increased cost for connection, the affected competitor's customers would react by switching from the connectivity provider or migrate most of their traffic to another top-level network provider to keep their costs down. Given the size of the merged entity's network (and its proportion of on-net customers), the merged entity would be the best and natural choice for these customers.

(160) The options of the targeted competitor would be just as limited in this latter situation as if it were hit with degradation through decreased capacity. As already shown in recital 160, by selectively degrading connectivity to a competitor the merged entity would be the natural choice, given its already large direct access to customer base much larger than any of its competitors, to gain the targeted competitors' customers. Given that customers demand global connectivity and quality of service offering, the reaction of new customers would be the same. They would also choose the merged entity before other competitors for the same reasons.

(161) The degraded top-level provider's only possibility to retaliate would be to persuade single-homed customers of the merged entity to switch to its network, most likely by multihoming to it, or enter into an extensive new peering and transit policy to ensure that its existing customers would stay with it. Otherwise, it is likely that these customers (wholesale or large corporate customers) would decide to switch their traffic to the merged entity, or at least multihome with the merged entity.

(162) Even if pursuing a degradation strategy would degrade the quality of service for both the merged entity and the competitor concerned, the competitor would be hurt to a greater extent, as his customers would lose connectivity to a larger portion of the Internet than the merged entity's customers. In proportional terms, the percentage of traffic affected by such a strategy would be higher for the smaller network (the merged entity would have [40 to 80]* % of its traffic as internal traffic, while its competitors maximum 32 %. The smaller networks are thus proportionally more dependent on the merged entity than the merged entity is on the smaller networks).

(163) In addition, if customers of the degraded network were to decide to stay with the degraded network these customers would have greater incentives to multihome than would the customers of the merged entity since the degraded network would not be able to provide the same quality of global connectivity. Given that the degraded network is a smaller network, the customer would have the incentive to multihome to a larger network (i.e. the merged entity) since this network can guarantee good quality of direct connection to the largest number of customers. The effect of the degradation would thus be accentuated because the merged entity's customers would have a much greater ability to substitute on-net services/content for off-net services/content than would the customers of the other network. Again, the result would be that the merged firm would gain customers and traffic, while the degraded competitor would lose both.

(164) Still, if one were to make the assumption that customers of the merged firm and the degraded network were equally likely to multihome in response to degradation, it is highly probable that degradation would still be in the merged firm's interest and would achieve the objective of consolidating its dominant position. Even with substantial multihoming, degradation would cause a movement of traffic to the merged entity's network from other top-level connectivity providers and increase its advantage over other competitors in the number of customers directly connected to it. This would enhance both the merged entity's market power and add revenue. It can therefore be concluded that multihoming is no deterrent to degradation.

([52]) […]*.

4. *Potential competition*

(165) The parties have argued in their submission to the Federal Communications Commission ([53]) that the merger will not impact the robust competition among Internet backbone service providers because barriers to expansion and entry are negligible and outside the merging parties' control. However, even though a number of new entrants have started to offer Internet connectivity and there has been a large increase in capacity built, there is still no significant entry into the top-level network market. Any change in the identity of the top players (such as the entry of Qwest, Level 3, Global Crossing, and AT & T) have been by change of ownership in existing networks, not by construction of new networks. These changes of control, therefore, do not alter the level of concentration in the market.

(166) With the necessity of matching the size of the combined networks in order to be a candidate for peering relationship with them, potential entrants would need to be certain to capture a very large portion of the future growth in Internet traffic if they want to reach the thresholds. In order to gain customers, they would always need to rely, initially, on the merged entity. Even if a new entrant would gain a substantial customer base, it would be sufficient for the merged entity to engage in the same behaviour against a potential competitor as an actual competitor. It would then be able to prevent the potential competitor from reaching peering status by exercising the threat of degradation or, it would be able to prevent the potential competitors from assuming top-level status by setting the prices of transit high enough to prevent them from building sufficient market shares. This is due to the dependence of smaller networks (top-level or others) on the merged entity for global connectivity.

(167) Even if potential competitors were to join forces these would not be better positioned than any other competitor or customer, because they could not afford to do without connectivity obtained from the existing top-level providers to ensure that their customers did not move to another connectivity provider. Potential competitors would face this problem irrespective of whether they were European or from other parts of the globe. In addition, any potential new entrant would be competing with existing top-level connectivity providers that are likely to be equally active in attracting new customers to keep their top-level status. Potential competitors would thus face competition from two sides. First, from existing top-level connectivity providers that are competing with the merged entity and need to keep their customer base to ensure that their peering status with the merged entity is not harmed. Second, from the merged entity itself that would have no incentive to allow the potential competitor to undermine its dominant position.

([53]) Sprint and MCI WorldCom's submission to the FCC, *Reply to comments and petitions to deny application for consent to transfer control,* 20 March 2000, pp. 89 *et seq*.

5. *Customers' reactions*

(168) Given the importance of being connected to the combined networks, also the merged entity's own customers would not be able to retaliate to an increase in price or degraded connectivity. As stated in recital 130, already today MCI WorldCom's customers accept prices that are more than 20 % above those charged by its competitors. This is since the entity already has a large direct and indirect customer base and offers its customers a service level guarantee (latency guarantee).

(169) It would, as stated by one European ISP 'become unavoidable' for it to switch from its current top-level transit providers and purchase transit from the new merged entity or at least become multihomed with the merged entity. This would be required from its customers, as a condition for purchasing services from the smaller ISPs, that it has a direct relationship with the merged entity's customer. Thus, if they are not already purchasing the majority of their transit from one of the merging parties, the Commission's investigation shows that the customers would establish a direct connection to the merged entity given its large direct and indirect customer base.

(170) If the merged entity decided to increase prices customers could try to counteract such a strategy by moving to the other networks to counterbalance the power of the merged entity. However, unless the customers can act as a unit (and there is no evidence that the customer base is sufficiently concentrated to permit this) no individual customer may want to take the risk of moving to obtain a possibly inferior service without having any assurance that a sufficient number of other customers would take the same step. The risk of degraded connectivity to the merged entity would be too great. In addition, customers connected to the merged entity would not readily migrate to a smaller network since they would still rely indirectly on the merged entity to obtain full connectivity.

(171) According to the parties, the development of distributed content services (notably mirroring and caching) increases the bargaining power of customers such as website and content providers vis-à-vis connectivity providers. The parties allege that the former could easily switch providers or switch part of the traffic onto their own networks.

(172) The aim of distributed content services is to accelerate the speed of content delivery to customers by limiting the amount of traffic exchanged across the Internet. However, they do not take away the need for content providers to have access to as many end-customers as possible. It is thus difficult to understand what impact the increased use of such services may have on the choice of connectivity provider. If quality is what matters, then customers have an unchanged incentive to select the combined network that would give them access to an unrivalled portion of the Internet. It also clear from the Commission's investigation that web content providers prefer to work with a single provider who can provide collocation/hosting facilities on a global basis, in diverse data centres. This simplifies management, billing and contracts with customers. Given that the merged entity would have the largest customer base, content providers using mirroring or other techniques would also have the same need as any other customer to have access to these customers. Once this is achieved, the situation of competition is the same as in the context of multihoming.

(173) The merger will thus create a 'snowball effect', because the merged entity will be better placed than any of its competitors to capture future growth through new customers, because of the attractions for any new customer of direct connection with the largest network and its customer base, and the relative unattractiveness of competitors' offerings owing to the threat of disconnection or degradation of peering which the merged entity's competitors must constantly live under. As a result the merger would provide the new entity with the opportunity to enlarge its market share even further.

(174) Increased use of multihoming and content delivery services will not change this fact. Despite increased use of such techniques all existing and new entrants in the market would have an incentive to connect, directly or indirectly, with the merged entity to ensure global connectivity. Given its increased market power due to its large customer base and large network with global reach, there will be no retaliation possible for either actual or potential competitors or customers.

The parties' response

(175) The parties argue in their reply to the statement of objections that the Commission has failed adequately to consider other factors than market shares when concluding that the merged entity would be dominant.

(176) Indeed, according to the parties the Commission has failed to consider (a) the short time necessary to deploy an Internet backbone network and enter the market as well as the sunk costs associated with the operation/construction of an Internet backbone network, (b) that customers of top-level connectivity providers are sophisticated corporations that have access to market information and are unlikely to accept any level of degradation, (c) that innovation plays a fundamental role in keeping pace with ever-increasing demand for high quality services and (d) that the relevant market is characterised by volatile market shares.

(177) It must be underlined that the parties' reply runs contrary to all submissions made by Sprint in the course of the review of the WorldCom/MCI merger where it argued that the combination of WorldCom and MCI would result in an entity able to degrade the peering connections of its competitors (including Sprint) due to its absolute and relative size.

Barriers to entry

(178) It has been explained in recital 166 that barriers to entry into the identified relevant market are high. The Commission's investigation has shown that it is the incumbent top-level provider that is perhaps best placed to capture future growth. MCI WorldCom has, due to its extensive network, large customer base and traffic flow, been able to retain its leading position despite the increased growth in the market during the last two years. In order for a new entrant to challenge this position, it not only needs an extensive network, but also a significant customer base. Without a large customer base, and traffic flows, a new entrant would not be able to obtain peering with top-level connectivity providers.

(179) To this effect the parties argue in their reply to the statement of objections that peering is not a barrier to entry. However, this argument is based on an assumption that the Internet is not hierarchical, an assumption that is contradicted by Sprint and the Commission's findings in this procedure. Top-level connectivity providers can only maintain their position by ensuring that they continue to have peering agreements with all other top-level networks. Otherwise they will be downgraded to the second-tier level. In any event, as acknowledged by Sprint in a submission to the Commission […]* ([54]).

([54]) […]*.

Customers reaction

(180) The parties then argue that degradation would be a counter-productive policy in the Internet, where providers of Internet connectivity services compete on the basis of providing high quality connections. A degradation strategy would be as harmful to the merged entity's customers as to the degraded network's customers and that the extended period of time required to implement fully such a strategy would cause the merged entity to lose market share. The parties also argue that degradation would be easy to detect.

(181) The parties also argued that if the merged entity were to engage in a selective degradation policy, this would affect the merged entity more than its competitors since a customer would have a strong incentive to switch, not to the merged entity, but to its largest rivals as only these offer a non-degraded service. The parties argued that the overall quality of the merged entity would be inferior to any of its competitors.

(182) The Commission cannot share this analysis. As stated in recital 164, if the merged entity were to slow down the upgrade of private peering points this would not necessarily affect its own customers to any significant degree. This is further evidenced by the parties' own submissions to the Commission ([55]). Their large customer base combined with their extensive network reach would enable the merged entity to maintain quality of services since customers would not necessarily have to leave the network which would otherwise increase these customers' exposure to latency, reliability and general performance issues.

(183) Because the merged entity relies only marginally on each of its smaller competitors whereas it will be a major source of connectivity to each of these competitors, the quality of service offered by MCI WorldCom/Sprint would not be affected to any significant degree by a selective degradation strategy. If the merged entity were to degrade the connectivity of one of its four largest competitors, this would only affect about [0 to 10]* % of its overall traffic. But, it would amount to more than [10 to 20]* % of such traffic for any of the largest competitors exchanged with the merged entity (off-net traffic). Assuming that this would trigger a decrease by 50 % of the quality of the connection between the two peers, this would translate to a decrease of one percentage point of the service quality provided by MCI WorldCom and of seven percentage points by its smaller competitor.

(184) In addition, the on-net traffic of the combined entity will amount to around [40 to 80]* % of the traffic flowing through their backbone. This means that any of the merged entity customers could access [40 to 80]* % of the Internet space without using peering connections. [40 to 80]* % of the quality of service would be in any event immune from degradation. It should be noted that the notifying parties have contested the significance of the on-net traffic as measured by the Commission. In their view, on-net traffic should only include traffic exchanged between end-customers of the merged parties and not between resellers of Internet connectivity who happen to be customers of MCI WorldCom/Sprint. This allegation does not resist closer examination, as what matters is that the merged-entity customers would access directly [40 to 80]* % of the Internet space without getting through a peering connection. Degradation of a peering relationship would not affect this access to [40 to 80]* % of the Internet space.

(185) The rapid growth in Internet traffic would allow the merged entity to implement its degradation strategy by focusing on the development of its own network and customers rather than upgrading the links with competitors. This is especially so given the large customer base of MCI WorldCom/Sprint compared to the merged entity's competitors. If, as the parties argue, this would be easily detectable by customers, both existing customers of the merged entity, customers of the merged entity's competitors as well as new customers would be more inclined to choose MCI WorldCom as their principal provider of connectivity. This is likely to be particularly true for large customers facing ISPs and content providers that have to maintain good quality connectivity to their sites and customers. Well-informed customers are likely to react more swiftly to a degradation than other customers. They would also be in a better position than less-informed customers of realising the benefits of being directly connected to the merged entity's large customer base.

(186) The parties have in their response argued that multihoming can be used to avoid degradation. According to the parties a customer could easily compensate degradation by utilising a direct connection that would bypass the degraded peering connection.

(187) However, as already stated in recital 36, multihoming does not necessarily prevent traffic from passing over a network with a degraded connection. The path of the outbound traffic can to some extent be influenced so that passing over a degraded network is avoided. But the return traffic would not be possible to control to any significant degree. A customer is in this situation likely to take the safest option and bypass the degraded peering point by connecting directly to the merged

([55]) […]*.

entity rather than connecting to a smaller connectivity provider since this would allow it direct connectivity to the merged entity's customer base. If it would decide also to multihome to another connectivity provider, it would be more likely that this connection is secondary to its agreement with the merged entity and used as a back-up to the principal connectivity provider, MCI WorldCom/Sprint.

(188) The parties alleged that the possibility to increase prices for transit on top of service degradation would only accelerate the flight of customers from the merged entity to other top-level connectivity providers, which would offer better quality at a lower price.

(189) In their argument, the parties assume that the merged entity would apply blindly and indiscriminately such a strategy. However, the parties will be able to target degradation and/or increase in prices on potential competitors that would want to enter the market. As evidenced by the Commission's investigation, a potential competitor would not be able to stay competitive (and provide universal connectivity) without obtaining connectivity from the merged entity's customers. If the potential competitor does not purchase transit from the merged entity, it would need to start peering with it or become a customer. It is not, however, obvious that a peering relationship would be granted by the merged entity. Alternatively, current customers could be disciplined by a threat of either degradation or higher prices. Given the potential competitors and customers dependence on the merged entity, this strategy could be effectively applied to targeted companies without any significant risk to the merged entity's own market position. In other words, it is extremely unlikely that the merged entity would uniformly increase its prices or degrade its connections to discipline the market.

(190) Furthermore, a large customer base combined with a large network enables a connectivity provider to keep higher quality of standards than a smaller network provider where customers would need to leave their network which would increase these customers' exposure to latency, reliability and general performance issues.

Effect of innovation

(191) The parties also argued in their reply to the statement of objections that both customers and end-users have the possibility of bypassing degraded peering points through new technologies such as caching and other storing techniques.

(192) The Commission does not share this view as this is only true to a limited extent. It is correct that these techniques are being used more and more to combat congestion and latency. But, these techniques cannot be used for all types of content. Furthermore, traffic still needs to pass through the top-level connectivity providers to ensure full connectivity. In any event, some of these techniques are also used by top-level connectivity providers to ease traffic congestion and bring content closer to their customers.

(193) The parties have objected that the merged entity would be able to control technical developments. According to the parties, no individual ISP would be able to impose standards on the Internet at the network level.

(194) However, given that innovation will play an increasingly important role in the future development of the Internet, a dominant player with a large customer base will be best placed to set the pace for such innovation. The technology used by the dominant operator to provide a given service would become a de facto standard since all customers of this dominant undertaking would have adopted the technology chosen by the incumbent.

Volatility of market shares

(195) The parties have also argued that market shares would be volatile. However, as described in the section covering market-share calculation, the market share of MCI WorldCom has shown a remarkable stability from one procedure to the other. Market shares for the other market participants have seen an increase for AT & T and a decrease for all other competitors.

Conclusion

(196) It follows from the above, that the notified concentration, if not modified, will result in an entity of such absolute (more than [35 to 45]* % of the market) and relative ([several]* times larger than its closest competitor) size, that this would enable the merged entity to behave independently of competition and customers. For instance, it will be able to increase prices to customers or to impose its own standards on the industry. Its ability to diminish its rivals' quality of service at any time through selective degradation will make it possible for the combined entity to discipline the market. It can therefore be concluded that the notified transaction will lead to either the creation or the strengthening of a dominant position in the market for the provision of top-level or universal Internet connectivity.

GLOBAL TELECOMMUNICATIONS SERVICES

Current market characteristics

(a) **Parameters of competition**

(197) Global telecommunication services are provided on a tailored basis to multinational companies. Because of the highly technical nature of these services the market functions typically with bids organised by the customers to which global telecommunication services providers are invited to bid.

(198) To be a credible bidder, a candidate would need to meet high quality requirements (for instance to prove that its network has a global reach, that it is reliable, that it is supported by enough sales and technical personnel in order to correct any fault in the service provided, etc.). It appeared that brand/quality perception is also a key element of competition. The fact that a provider already has a significant number of global telecommunication services customers and also some key accounts appears to be a determinant factor for customers when deciding whether it is a credible bidder. Customers confirmed that price was only relevant at the second stage of the bidding process, when adequate levels of quality of the service were ensured.

(199) The market investigation has shown that to participate in such bids is costly and time and resource intensive. Knowledge of past bidding history is a major asset to be able to bid competitively as it provides high-level information on recent market prices and bidding behaviour of rivals. Such information makes it possible for a market participant to ensure that the price offered in the first stage is in an acceptable range for the potential customer and then to refine the price in the negotiations in the second stage.

(b) **Barriers to entry**

(200) According to the notifying parties, barriers to entry to the global telecommunication services market are low. Yet evidence from both the notifying parties and third parties suggests that this is not the case. The costs of bidding can range from a few thousand dollars up to over USD 500 000 for some bids. Bids can take up to a year before the entire process is complete and may require a significant number of staff to complete the bidding process for the supplier. Consequently, participation in the market leads to high sunk costs. A true global operator, according to one third party, can be expected to receive a few hundred complex requests for proposal each year and many more simpler ones. With this volume and frequency of proposals, and the costs of bidding for each one, the costs of entry into the global telecommunication services market appear to be high. In addition, even if the new entrant is prepared to incur the sunk costs of bidding, they will then need to overcome a further difficulty which will be the absence of an existing customer base with which to convince the customer that they are a credible contender on the market. This includes support and sales staff in their organisation that have experience to implement the RFP bid.

(201) According to one third party, to enter the market involves a choice between constructing the network based on leased lines, which is the quick way to build but is more expensive, or to roll out its own network, which will enable costs to be kept under control in the future, but takes longer to do. Entry is therefore made difficult in two ways, so that new entrants, assuming that they could reach the second stage of a bidding process, who choose to enter the market quickly will be unable to match incumbents with established networks on cost if they rely on leased lines, whilst the building of a new network will further delay the entry of the company into the market. It should also be noted that Equant, one of the market participants, has recently announced that it now intends to build its own network instead of leasing fibre. Customers have also explained that they prefer to deal with facilities based providers as such providers are directly in control of the underlying cables and therefore better able to control the quality of their offering.

(202) […]*. If such a strong company as Sprint would take that long to build its non-US business should the merger fail, the task for new entrants without Sprint's US network, brand image and its large customer base would be even greater.

(203) […]*.

(204) […]* ([56]).

([56]) […]*.

(205) In conclusion, the previous recitals show that the barriers to entry for new players in the market are high, contrary to the assertions of the notifying parties in their submissions. In order to achieve substantial entry, entrants need to bid for a substantial number of contracts, which is expensive. In order to win such contracts, these companies need to have a network in place that will satisfy the demanding terms that customers put into RFPs to be able to reach the second stage of a bidding process, and this network generally has to be extensive in order to meet customer needs and to enjoy low-cost provision of services. Even if new entrants are able to fulfil these needs, they will still lack the bidding experience of the existing market players. This bidding experience would enable the new entrants to extract information on competitors' past prices, likely costs and behaviour which is necessary to help them to compete effectively.

(c) **Market participants**

(206) On the supply side, prior to the merger, there were three main suppliers with a number of smaller competitors. The three main suppliers were the Concert Alliance (including BT, AT & T and their jointly controlled subsidiary Concert), MCI WorldCom and the Global One Alliance (including France Télécom, Deutsche Telekom, Sprint and their jointly controlled subsidiary Global One). These three suppliers held substantial portfolios of customers. They were able to participate in a majority of the requests for proposals issued by customers and able to provide any sort of global telecommunication services. The smaller players, including Cable & Wireless and Equant, were only able to participate in a few bids, rarely won important bids and could not necessarily provide all services. One important competitive advantage enjoyed by the three main players was that through their wide participation in bids (there are a few hundred bids per year) they could accumulate information on the cost and pricing of most of the demanded global telecommunication services.

(207) In the BT/AT & T decision, the Commission found that there were a limited number of actual or potential competitors in the GTS market. These included BT/Concert, AT & T/AUCS/Unisource/WorldPartners, Global One, Equant, Cable & Wireless as well as other potential local and IT based companies as potential competitors on the market. In the same decision, on the demand side, the Commission found that there was a short list of companies which some GTS customers said that they would always consider when issuing an RFP (BT/Concert, AT & T/AUCS/Unisource/WorldPartners, Global One, Equant and Cable & Wireless) ([57]).

([57]) Since the completion of BT/AT & T, the WorldPartners alliance has effectively disappeared and Unisource has been merged into Infonet with AUCS.

(208) Information provided by third parties' customers regarding their bid history over the previous year for obtaining global telecommunications services confirmed that it was generally the same short list of suppliers which bid for those contracts, namely Equant, MCI WorldCom, BT, AT & T, C & W and Global One.

(209) In their notification, the parties do not specify which companies are on or outside the market. Instead, they compare the Commission's assessment in the BT/AT & T decision to the one made by the Federal Communications Commission (FCC) on the same transaction ([58]). The FCC decision 'identified a number of other firms which are emerging as significant providers of GTS'. These firms included the Regional Bell Operating Companies (RBOCs) and '[n]ew carriers' such as Qwest, IXC and Level 3 as well as Global Crossing/Frontier, GTS (which acquired Esprit Telecom in 1999) and Colt. The parties' analysis of the notification concerns only potential competition, the notifying parties do not challenge the list of actual competitors set out in BT/AT & T. In further documents provided to the Commission, the parties also identified other entrants such as Deutsche Telekom, Infonet, Telecom Italia and Telefónica.

(210) The parties' allegations that there are a large number of potential competitors who could easily enter the market are contradicted both by their own submissions and by the Commission's investigation, which both confirm the analysis made in the BT/AT & T case.

(211) In a submission ([59]) in the context of the BT/AT & T procedure which concerned products similar to the ones in the present case, MCI WorldCom stated that: […]* ([60])[…]*.

(212) Furthermore, in documents provided to the Commission during the course of the investigation ([61]), […]*.

(213) In approving the BT/AT & T operation, the Commission used the narrowest possible market definition to provide the most rigorous analysis of the operation. Despite the failure of the notifying parties to challenge the number of competitors on the market to any significant degree, it is necessary to identify whether the actors on the market have changed over the last year as well as to measure the effect of this operation.

([58]) Form CO page 39
([59]) Response dated 23 November 1998 to Commission request for information,
([60]) I.e. BT/AT & T/Concert.
([61]) […]*.

(214) As anticipated in the BT/AT & T decision, Unisource have ceased to exist in their previous form and the WorldPartners alliance now appears to be moribund. AUCS, the former AT & T-Unisource joint venture, is now part of Infonet. Some multinational companies have identified AUCS/Infonet as being suppliers for some bids. In addition, another company identified AUCS/Infonet as being a competitor on certain bids, but primarily to small and medium-sized enterprises in Europe, and not a true global player. This is also borne out by the win/loss data provided by the companies in the market where Infonet very rarely appeared as a winner or losing bidder for the contracts for which the Commission was provided information.

(215) The Commission has also examined a number of other possible new entrants into the market as identified by the notifying parties. As set out above, these included the regional Bell operating companies (RBOCs), Qwest, Global Crossing/Frontier, IXC, Level 3, GTS (which acquired Esprit Telecom in 1999) and Colt. However, the Commission noted in its statement of objections that none of these companies, with the exception of Qwest which is considered in recital 216, featured at all significantly on the win/loss lists provided by the major suppliers, nor in the assessment of customers in reply to the Commission's questions. Indeed, many of the above companies appeared to be unknown by some customers because there was either no comment or a question mark against their entry in the table of possible competitors. In addition, the internal analysis provided by MCI WorldCom and Sprint did not identify any of the above companies, with the exception of Qwest, as a serious competitor on data markets: in as much as they were considered to be competitors, they were aggregated under the 'other' category in the analysis. Finally, the President and CEO of Yankee Group, a major telecommunications consultancy firm, Berge Ayvazian, described two of the competitors as: 'second tier competitors such as Qwest and Level 3' ([62]).

(216) As mentioned in recital 215, of the potential competitors identified by the notifying parties, Qwest is the most convincing possible actual entrant into the GTS market. According to win/loss data provided by MCI WorldCom and a third party, Qwest is beginning to be regarded as a competitor for some bids. […]* ([63])[…]* In addition, as identified by the parties in their analysis of the potential competitors on this market, Qwest has a joint venture with KPN which holds 'significant European long-haul fibre assets and expertise'. Therefore, of all the possible new entrants in the market since the BT/AT & T decision, Qwest appears to be the most credible.

([62]) http://www.yankeegroup.com/webfolder/yg21a.nsf/yankeetoday/A+View+From+the+Top.+Our+President+and+CEO,+Berge+Ayvazian+discusses+the+proposed+merger+of+MCI+WorldCom+and+-Sprint.

([63]) […]*.

(217) Notwithstanding the above evidence, given the differing interpretations of the number of players on the market, for the purposes of this analysis, the Commission has widened its view of the players on the market and assumed that some of the marginal players are on the market. It was then assessed whether these can exert a meaningful influence over the major players on the market following the concentration (MCI WorldCom/Sprint and the Concert alliance ([64])), or whether the two major players post-merger will enjoy a dominant position, either singly or together.

(218) In submissions to the Commission during the course of the procedure, both MCI WorldCom and Sprint provided information on their assessment of the players on the market on the basis of a list of the service lines that they provide on the market place. This generated the following overall results:

Company	MCI WorldCom's view		Sprint's view	
	Number of services offered	Rating (between 1 (best) and 5 (worst))	Number of services offered	Rating (between 1 (best) and 5 (worst))
MCI WorldCom	[...]*	[...]*	[...]*	[...]*
Sprint	[...]*	[...]*	[...]*	[...]*
Concert	[...]*	[...]*	[...]*	[...]*
AT & T	[...]*	[...]*	—	—
BT	[...]*	[...]*	—	—
Global One	[...]*	[...]*	[...]*	[...]*
Cable & Wireless	[...]*	[...]*	[...]*	[...]*
Equant	[...]*	[...]*	[...]*	[...]*
Qwest/KPN	—	—	[...]*	[...]*
Infonet	—	—	[...]*	[...]*
SBC	—	—	[...]*	[...]*

([64]) I.e. Concert itself, together with its parent companies AT & T and BT.

Company	MCI WorldCom's view		Sprint's view	
	Number of services offered	Rating (between 1 (best) and 5 (worst))	Number of services offered	Rating (between 1 (best) and 5 (worst))
Deutsche Telekom	—	—	[...]*	[...]*
France Télécom	—	—	[...]*	[...]*

(219) The above analysis, based on the parties' view of the service lines, indicates that both MCI WorldCom/Sprint and the Concert alliance will offer a full range of services after the merger. Some others offer a similar range of services, but they do not have as good a set of services on the market, in the view of the notifying parties.

Effect of the concentration

(220) In BT/AT & T the Commission found that the market shares in that case (in the range 39 to 47 % — see recitals 106 to 108 of the BT/AT & T decision) did not by themselves indicate a creation of a single dominant position. This was because of the presence of substantial competitors to the Concert alliance such as Sprint/Global One and MCI WorldCom as well as to a lesser extent Equant and C & W, who were found to be able to compete on equal terms with the joint venture. These players were found collectively to exercise competitive constraints on the notifying parties at the time of a bid for a contract from a customer. Indeed, they assured customers that there would be enough bidders present to ensure the maintaining of competition. This was either because they are requested to bid as well by the customer or because the parties know that, faced with sophisticated customers, they could not impose their conditions because in that case the customer would extend the request for proposals to the other possible providers.

(221) At the same time as the notified concentration, the Global One Alliance has lost two of its members with a twofold effect on competition. First, with the inclusion of Sprint in the MCI WorldCom group, which is a direct competitor of Global One, Global One loses its distribution partner, and therefore presence in the United States. Second, the break-up of the Global One joint venture and the sale of its assets to France Télécom also leads to a similar effect in Germany, but there is no causal link between the notified concentration and the withdrawal of Deutsche Telekom from Global One.

(222) The importance of Sprint to the Global One market position is underlined by internal documents from the parties. […]*.

(223) Existing and potential customers of Global One showed a certain loyalty to their supplier when asked whether they would switch. However, they stated that the ability of Global One to provide coverage in the USA would be examined closely during the remainder of the current contract and at the time of renewals. In response to the Commission's investigation? nearly all existing or potential customers rated Global One, after its acquisition by France Télécom, as a medium-ranking player, behind MCI WorldCom and the Concert alliance. This was in part caused by the sudden lack in US coverage.

(224) The second effect of the notified concentration results from the combination of Sprint's customers in the United States with those of MCI WorldCom. This combination will reinforce the latter's already strong position in the GTS market.

(225) The notifying parties argued in their notification and in the course of the procedure that the existing Sprint customers who are using Global One services will remain with Global One and not Sprint. According to them, such customers would be bound in some way to the Global One network. This was however not confirmed by the market investigation. This is contradicted by both parties' analysis of the future of Global One.

(226) […]* It is also generally expected that Global One will lose a significant proportion of its current customers due to the merger notably because of the lack of US coverage? as explained in recital 221.

(227) This second effect of the likely move of customers from Global One to the merged entity is confirmed by Sprint in a document supplied to the Commission […]* ([65]); For instance, an MNC explained that Global One is lacking a US presence and does not have a particularly strong global presence but does provide very good EMEA (Europe Middle East Africa) presence and good service capabilities. Another one stated that they will probably not continue their relationship with Global One but are awaiting further developments around that company.

([65]) […]*.

(228) Therefore, the operation will result in the withdrawal of Global One as an effective leading competitor on the GTS market, because of the absence of its US reach and the expected loss of a significant proportion of its US customers to the merged entity. Consequently, the subsequent analysis is conducted on the basis that whilst Global One will remain in the market, it will be as a niche player only able to bid for a limited set of contracts because of its absence of its own US presence, and its consequent reliance on Sprint, at least in the short term.

(a) **Market share analysis**

(229) In a document [66] supplied to the Commission during the course of the investigation, Sprint provided its perception of the market shares in the USa for data services (which it defined as IP, Frame Relay and ATM) as well as total external market (the market which included data, private line, international voice, toll-free and business outbound), Sprint provided market shares for the two markets. […]* In 1999, for data services, Sprint had [5 to 15]* %, MCI WorldCom [35 to 45]* % and AT & T [15 to 25]* % with Qwest on [0 to 10]* % and the remainder aggregated at [20 to 30]* %. For the wider group of services, Sprint had a market share of [5 to 15]* %, with MCI WorldCom on [30 to 40]* %, AT & T on [30 to 40]* %, Qwest on [0 to 10]* % and the others aggregated at [20 to 30]* %. This data, provided by the one of the notifying parties, indicates the strong position that the merged companies hold on the GTS market.

(230) The Commission measured the market for GTS in two main ways:

Method A: by overall revenues from products contained in the GTS market;

Method B: by analysing the total sales of the companies in the GTS market to around 200 large telecommunications spending companies (as was done in BT/AT & T).

(231) In addition, the Commission analysed the perceptions of the companies on the market by customers and competitors.

(232) The assumptions behind the tables to calculate methods A and B were based on the presence in the market of a larger number of companies than had been present in BT/AT & T, including companies which the notifying parties claimed in their notification were actual or potential competitors on the market. BT were unable to provide data in time for the Commission, so data ascribed to BT are based on figures given in the BT/AT & T investigation. These figures are likely to represent an underestimate of BT's market position.

(233) Three further assumptions were made, all of which work in favour of the notifying parties and the Concert alliance. First, Global One was retained as being in the market, when all the evidence suggest that Global One's existing customers will migrate in large numbers to Sprint or change to other providers and new potential customers will be less likely to choose Global One until its US and German presence is established. Second, even though Qwest has been unable to provide data for the Commission's investigation, it has been given a 5 % market share, which is well in excess of the market share which Sprint estimates it has in the US. Finally, even though Infonet did not provide data, the figure for AUCS has been doubled to allow for Infonet's sales in this market. This implies that Infonet has a market share of 5 %, the same as Qwest and represents an overestimate in that Infonet is not identified as a major competitor by Sprint in their analysis mentioned in recital 216, unlike Qwest.

(234) In the light of the above information, it is likely that the tables under method A and B below represent a view of the market which is more favourable to both MCI WorldCom/Sprint and the Concert alliance than reality.

1. *Method A*

(235) Method A involved the collection of overall revenue data from the companies in the market for their sales of a list of services. This definition was global network services [67].

Supplier	Market share (%) (due to rounding the total may not be exactly 100 %)
MCI WorldCom/Sprint [68]	[25-35]*
Concert alliance	25-35

[66] […]*.

[67] Global network services are defined as international network services (including voice and data (e.g. X.25, frame relay and ATM)), ancillary services (e.g. international 800, calling cards, etc.) and whole circuit IPLCs. The definition does not include professional services or customer premises equipment. For the purposes of the above definition, stand alone services such as international IDD, long-distance or local connections are included only if they are part of a larger bundle of global network services.

[68] MCI WorldCom: [15 to 25]* %, Sprint [0 to 10]* %. Sprint data includes all of its existing customers for Global One services given the likely decline of Global One.

Supplier	Market share (%) (due to rounding the total may not be exactly 100 %)
Global One/France Télécom	15-25
Equant	< 5
Cable & Wireless	< 5
Qwest	5
AUCS/Infonet	5-15
Level 3	< 5
Deutsche Telekom	< 5
Colt	< 5
Williams	< 5

Supplier	Market share (%)
Concert alliance	35-45
Global One/France Télécom	5-15
Equant	< 5
Cable & Wireless	< 5
Qwest	5
AUCS/Infonet	< 5
Level 3	< 5
Deutsche Telekom	< 5
Colt	< 5
Williams	< 5

2. *Method B*

(236) The Commission then collected data from the companies on the market in order to discover the revenues which each company earned from global network services. This method, which was also used in the BT/AT & T investigation, involved the collection of data from each supplier in the market of their sales to a list of around 200 companies who formed the top international telecommunications spenders worldwide. This list was extracted from a wider list of the top 2 000 companies by the same measurement. These 200 companies accounted for at least 35 % of the telecommunications expenditure of the 2 000 companies. The services were the same as used in method A.

(237) The companies on the list were identified as being large multinational companies by the notifying parties when asked to comment on the list and they regarded the list as being an acceptable proxy measurement for the market. Again, a similar analysis to that contained in method A was carried out.

Supplier	Market share (%)
MCI WorldCom/Sprint ([69])	[30-40]*

([69]) MCI WorldCom: [30 to 40]* %, Sprint [0 to 10]* %. Sprint data includes all existing customers given the likely decline of Global One.

(238) These data in the tables above appear to confirm what Sprint has already identified regarding the position of the notifying parties and the Concert alliance as the principal players on the market, well in advance of any other market actor.

(239) These market-share figures are confirmed by the win/loss analyses the Commission has received from the parties and third parties and the bidders competing to provide services to the top 200 or so companies.

(b) **Perceptions of the suppliers**

(240) The market shares outlined in recital 237 reflect past contracts won and lost in bids but not necessarily the future ability to win bids. They give an indicator of future market power, but the bidding market is also based on customer perception and the capability of suppliers to incur costs and sustain their challenge in bidding for contracts.

(241) In order to discover the perception of the customers and competitors in the market, the Commission asked third parties to rank the players on the GTS market on a grading scale from 1 (worst) to 5 (best) for a number of factors. These factors included: US presence ([70]), global presence, service capacity, facilities-based, brand

([70]) As identified in the analysis of Global One in recitals 221 to 226, US presence is important for GTS suppliers because of the number of MNCs with headquarters there.

and customer portfolio. A number of respondents provided qualitative rather than quantitative analyses which confirmed the quantitative analysis that the strong firms on the market were MCI WorldCom/Sprint and the Concert alliance with Equant, Cable & Wireless and Global One being the following players with some weaknesses but still in the market. Of the third parties that provided a quantitative analysis, the following results were obtained:

Supplier	Customer rating	Competitor rating
MCI WorldCom	3,7	4,3
Concert alliance	4,3	4,7
Global One/France Télécom	3,2	3,7
Equant	3,1	4,0
Cable & Wireless	2,9	3,6
Qwest	2,9	3,6
AUCS/Infonet	2,6	3,6
Level 3	2,6	3,0
Deutsche Telekom	2,2	2,9
Colt	1,1	2,7
Williams	—	2,6
GTS	—	2,5

(242) As can be seen from the table, customers and competitors are generally consistent in how they rank the companies, though competitors consistently score companies higher than customers, possibly because of their more extensive knowledge of the market. The two largest players on the market — MCI WorldCom and the Concert alliance — score highest by both customers and competitors. Following them come a number of companies very close together in terms of rankings, with Global One and Equant leading that group.

(243) It should be noted that the above table reproduces averages of varying rankings attributed to each company. Only MCI WorldCom and the Concert alliance scored consistently high for all criteria by nearly all respondents.

(244) The table also seems to indicate that the players who the notifying parties claim to be entering the market are in fact not regarded as meaningful players on the market by either themselves or their customers. It confirms the Commission's view that the market has been drawn widely in its market analysis.

(c) **Conclusion**

(245) From the market-share analysis and customer and competitors' assessments outlined above, the statement of objections concluded that only two players are able to participate in a high number of bids. This seems to be true both for the top 200 multinationals and for the other components of the demand as the resulting market shares, both in absolute and relative terms, are consistent.

(d) **The parties response to the statement of objections**

(246) The parties say that the market share increase as a result of the merger is minimal. This is because Sprint has few GTS activities, as a result of its involvement with Global One, and the increase in market share attributable to Sprint is only […]*[0 to 10]* % to […]* % as a result of the merger. The parties argue that this increase did not justify the opening of proceedings under the Merger Regulation.

(247) It should be noted that it is incumbent on the Commission to investigate any creation or strengthening of a dominant position in a notified operation. Increase in the market share of the parties is one of the indicators looked at to assess the changes in the market power detained by the notifying parties. The statement of objections found that this contributes together with the disappearance of a potential US leg for any competitor on the relevant market to the creation of the joint dominant position as identified in the statement of objections.

(248) Next, the parties allege that the concentration has no causal connection with the change in ownership and control of Global One. They say that the decision to change the ownership structure of Global One was taken well before the decision of Sprint to merge with WorldCom. They continue that the statement does not focus on the small increase in market share attributable to Sprint, but instead to the consequences of a different operation which had already been assessed by the Commission.

(249) The Commission accepts that there is no causal link between this operation and the break-up of Global One (see recital 221). However, the break-up of Global One is relevant to assessing competition on the market. The Commission has an obligation to take into account the facts on the market and make projections on how the market will develop in the future. Indeed, the decline of Global One is a fact following the change in ownership and the loss of its US partner: Sprint.

(250) The parties then pointed to the BT/AT & T decision where the market for GTS was found to have 'substantial competitors' and to be 'highly competitive and fast moving' and that customers were 'sophisticated' and were 'powerful enough to dictate their demands'. They also pointed to the numbers of serious potential competitors which the Commission noted in that decision. They also pointed to the FCC Decision on the BT/AT & T case taken in October 1999 where that organisation also did not find significant competition issues. They believed that the changed market structure which the Commission identified in its statement of objections could not have taken place in such a short period of time.

(251) As set out in recitals 206 to 218, the market participants retained by the Commission do not only include all of the companies who the Commission considered to be on the market in the BT/AT & T decision (and which MCI WorldCom believed constituted the market players along with the now defunct Unisource in the course of the BT/AT & T procedure) but also other companies who the parties claimed were also on the market (some of which did not feature significantly on the win/loss lists obtained by the Commission).

(252) The parties alleged in the reply that the Commission has underestimated the degree of competition on the GTS market. On actual competitors, first they argued that Equant and Cable & Wireless remained global competitors on the market. Second, they pointed to Infonet, Level 3 and Teleglobe as being significant new players. The parties went on to argue that Global One will remain a significant force on the market by building up its US presence through new investments and a possible alliance with a US operator together with the retention of its existing US customers and its capture of some customers from Sprint where Sprint is distributor of Global One's new service. According to the parties, customers confirm the view that Global One remains a significant player even after the severing of its links with Sprint.

(253) The parties criticise the Commission's statement which said that the potential competitors identified in the BT/AT & T decision had not featured significantly in the win/loss lists supplied to the Commission. According to the parties, potential competitors would not feature in such lists, only actual competitors would. In addition, the parties point to the RBOCs and Global Crossing in particular as being significant potential competitors.

(254) The parties quote the BT/AT & T decision on potential competitors extensively in their reply. Since that decision was taken in March 1999, only the companies that the Commission has identified on the market, such as Qwest, Williams and GTS have started to feature in bidding contests. This suggests that the role of the other companies identified as potential competitors in the BT/AT & T decision is less credible than was thought at that time.

(255) The final criticism by the parties of the Commission's analysis is that the Statement overestimated the market power of the combined entity. In particular, the parties pointed to four main alleged defects to the methodology used. First, the Global Network Services market-share measure used did not correspond to the market definition and exaggerated the Concert market share. Second, they pointed to method B as being flawed, as there is no justification as to how the 200-company sample, taken from a wider sample of 2 000 companies, can be considered to be representative of all the MNC customers. Third, they believed that the market share attributable to Sprint was too high as the statement assumed that Sprint will retain all of its customers for Global One services. Finally, they argued that the Commission cannot treat the Concert alliance as one single entity for the purposes of calculating market share, as BT, AT & T and Concert compete with one another for some contracts.

(256) The Commission notes that the 200-company sample is an alternative method of measuring the market to the method based on total revenues. The point about the Sprint market share has already been addressed in recital 249. As to the aggregation of the Concert alliance market shares, this aggregation of the market shares of a group of companies bound by joint venture agreements is entirely consistent with normal competition law analysis. It should also be noted that the members of the Concert alliance distribute the same Concert products.

Creation of dual dominant position

(a) **Absence of single dominance**

(257) In the light of the market share information given in recitals 235 and 237 and the ability to bid extensively for new contracts, neither MCI WorldCom/Sprint nor the Concert alliance can be expected to enjoy a single dominant position. Should either company attempt to exercise market power alone, the other would be able to defeat that attempt given its own presence on the market. However, the Commission took the view in the statement of objections that together the two companies would have a market position to exercise joint dominance on the GTS market.

(b) **Criteria for parallel behaviour**

(258) In many former collective dominance cases, the Commission has applied the following series of criteria to establish the likelihood of the creation or reinforcement of a collective dominance position. These criteria are as follows: (i) the relevant product should be homogeneous; (ii) market shares should be stable and symmetrical; (iii) barriers to entry; (iv) symmetry of costs; (v) demand should be stagnant and inelastic and (vi) there should be a low level of technological changes.

(259) These criteria are, in most circumstances, important tools in addressing the four fundamental questions related to the analysis of collective dominance cases under the Merger Regulation, i.e.:

(a) are there incentives for the market players to engage in parallel behaviour?

(b) is it easy for market players to monitor the competitive behaviour of the other market players?

(c) are there disincentives for the market players to deviate from the parallel behaviour?,

(d) is it possible for the demand to constrain the parallel behaviour?

(260) In summary, the statement of objections took the following view of the criteria. Since global telecommunication services are tailored to the need of each customer, it does not appear at first sight that they are homogeneous. However, global telecommunication services are assembled from the same basic components and competition between suppliers for a particular customer's business is on the basis of the same customer needs. It is difficult to assess the symmetry and stability of market shares as this market is recent and has witnessed shifting alliances (of which this merger is only the most recent) and concentration over the past two years. Barriers to entry are certainly high as a market participant would need to possess an extensive infrastructure and would have to incur sunk costs due to the participation in bidding processes. On a value basis, demand is growing materially even if on a volume basis (i.e. the number of customers with global telecommunication service needs) this growth is much smaller. Demand is not significantly sensitive to price as quality is the key driver of competition in this market. There are technological changes occurring in the market place but they affect all players in a similar way.

(261) The statement of objections argued that in the case of a market like motor fuel retailing (see the *Exxon/Mobil* and *TotalFina/Elf* cases), competition takes place on prices and the market operates with individuals as price takers. It is in that instance relevant to look at the series of criteria set out in recital 258 ([71]). Incentives to coordinate in those cases were found to be high because market participants were all purchasing motor fuel on a wholesale market and had symmetrical market shares. The homogeneity of motor fuel and the full transparency of prices made it easy for market players to monitor the competitive behaviour of their competitors. The excess refining capacity made it easy to retaliate against any cheater. Low demand price elasticity and its scattered nature made it very difficult for demand to counter any parallel behaviour.

(262) The statement of objections argued that in the German long-distance gas transmission market (see the *Exxon/Mobil* case), the Commission raised objections even if few of the criteria set out in the series of criteria in recital 258 were met. The objections were not based on collusion on prices, but on market geographical partitioning. Because of a former cartelisation of the market, market participants (with one exception) each had a territory on which it held a strong market position. All market participants had similar incentive to preserve their strong home-territory market position. In addition, this geographical demarcation of territories made it relatively easy to monitor the behaviour of competitors and, if any crossed the border, retaliation would take the form of crossing the border in return.

([71]) Cases M.1383 *Exxon/Mobil* of 29 September 1999 and M.1628 *TotalFina/Elf* of 9 February 2000.

(263) In the case at stake, the market functions on a bid basis where providers are selected essentially in the first instances of the bidding process on their ability to offer high quality tailor-made sophisticated services that can only be provided by a limited number of providers. Given that barriers to entry are high (as stated in recital 205 it is not enough to have the possibility of providing the network and perhaps also the services, it is also necessary to have a proven track record) if there were parallel behaviour, this would centre around the bidding process and the ability to offer competitive services to the companies requiring these services. In such a case, collusion would not take place on prices but on who wins what bid (and who has won what bids).

(c) **Changes in the incentive to compete**

1. *Two leading players and a tail of followers*

(264) The statement of objections argued that because it would be implemented at the same time as the considerable lessening of the competitive position of Global One, the notified merger would result in a market with two leading players (MCI WorldCom/Sprint and the Concert alliance) followed by smaller competitors. With the addition of the Sprint market share to that of MCI WorldCom, the merged entity increases in market presence. Post merger, both leading market players would thus present similar competitive characteristics and would enjoy significant advantages over the remaining competitors.

(265) First, as is clear from the market-share analysis, they will have approximately similar portfolios of customers (together they amount to approximately 60 to 80 % of the market) and market positions.

(266) Second, the statement of objections argued that they would enjoy a similar cost basis in terms of the underlying infrastructure. The notifying parties have consistently argued that raw capacity is available on the market place. It follows that the costs of network provisioning are necessarily constrained by the prices charged in the market place for raw capacity. As the parties have explained, the network costs of providing more elaborated services are a function of the underlying network costs. As the functions are similar with similar inputs, it results that both players enjoy similar network costs. In addition, the size of their networks and the importance of their service offering enables both entities to benefit from scale and scope economies that are not available to their smaller competitors. Neither MCI WorldCom/Sprint nor the Concert alliance has to incur the sunk costs of building out global networks, providing support services or employing sales teams to enter into the market. As indicated in recitals 200 to 205 this is an expensive and long-lasting process which will take years to achieve before even an existing player who has recently exited from an alliance (e.g. Sprint or Global One) can reenter the market on a credible basis. The other categories of costs relate either to telecom equipment or labour costs. The statement of objections argued that both were functions of exogenous market places and are therefore similar to both leading players. Given their size, it is likely that equipment and labour costs will be lower for these companies compared to smaller companies, bringing them further competitive advantages.

(267) Thirdly, both the merged entity and the Concert alliance will benefit from similar range and quality of service portfolios that are not provided to the same extent and scope by its main competitors. This is supported by the market-share analysis set out in recitals 229 to 244 and by the market investigation. Both have a wide range of services which they can offer to large multinational customers. Others have a wide range of services, but MCI WorldCom/Sprint and the Concert alliance are consistently highly rated for a majority of their services, whereas others have more significant weaknesses.

(268) Fourthly the statement of objections argued that both the merged entity and the Concert alliance have a substantial and well-established brand image, which leads to a general high perception of the quality and reliability of those suppliers. Both the merged entity and the Concert alliance are facilities-based in a large proportion of the world and have good control over the quality of their network and an extensive geographic reach as a consequence. Smaller competitors may have good global networks, but are perceived in the market place as having 'thin' networks which may not have sufficient bandwidth to satisfy increasing customer demands in the future. Also, they have the necessary technical support and sales services available globally to their customers.

(269) Finally, unlike the other players on the market, by participating in a majority of the bids the merged entity and the Concert alliance have much more complete information over their competitors and the different bids than any of the smaller competitors that are not able to participate in all bids. According to the win/loss data obtained by the Commission, either MCI WorldCom/Sprint or the Concert alliance are present in the majority of bidding procedures. For instance, in the win/loss bids data received from BT, either MCI WorldCom/Sprint or the Concert alliance is the winner of a very significant number of the total submitted bids.

As for the data received from C & W, a similarly very significant number of the total bids lost by C & W, include MCI WorldCom and the Concert alliance as competitors. In MCI WorldCom's own win/loss lists, smaller players hardly appeared at all either as winners or as main competitors likely to be on the final short-list. On the contrary, Sprint or the Concert alliance appeared as winners for half of the bids lost by MCI WorldCom. According to win/loss data supplied by AT & T, the vast majority of their strong competitors where they won bids were either MCI WorldCom or Sprint.

(270) Also, it should be noted that MCI has been distributing Concert services as part of the break-up agreement with BT, while Sprint will continue to distribute Global One services and serve Global One contracts in the United States for a transitional period. This increases the transparency in the market as regards the identity of customers and the nature of the services which they are using for the time when the next RFP is issued.

(271) The statement of objections concluded that the merger would bring MCI WorldCom/Sprint and the Concert alliance into close parity with one another on the GTS market.

2. *The bidding game*

(272) The statement of objections further argued that the new market structure resulting from the merger is prone to tacit coordination by MCI WorldCom/Sprint and the Concert alliance given the manner in which they both participate in bids.

(273) There are two possible bid situations. The first situation concerns bids to renew or upgrade a telecom offering where either the merged entity or the Concert alliance is the incumbent provider. In such circumstances, the statement of objections argued that other competitor would have no strong incentive to challenge the position of the incumbent. This is further reinforced by the inherent cost advantage to the incumbent (switching costs can be as high as 20 %) and there is also an understandable customer nervousness other about consequences of the change (the changing of network connections from one supplier to another, maintaining the operation of the network during the change, etc.), For instance, one customer stated that in case they were not happy with their supplier, the difference in the price/performance ratio with the current provider would have to be significant to overcome the costs of migration to a new provider. The second situation is where neither the merged entity nor the Concert alliance is an incumbent (i.e. for a new GTS customer or a new service to an existing GTS customer).

(i) MCI WorldCom/Sprint or the Concert alliance as incumbent supplier

(274) In the case of the merged entity or the Concert alliance being the incumbent supplier for a contract to be renewed, the statement of objections argued that the other would have incentives to participate to the bidding process, but not to the extent to put in jeopardy the position of the incumbent. To participate in the bidding process, would bring various benefits to the other oligopolist. First of all, it would be able to get further information for use in future bids. In addition, it further strengthens the perception that it is a competitive bidder while by its simple presence it limits the ability of third parties to be serious contenders in the bidding process.

(275) By not competing strongly in the second stage on prices, the other competitor provides incentives to the incumbent to behave in a similar way in the converse situation. This is likely to happen within a short time-frame given the frequency of bids. In addition, by helping to maintain higher prices, the other provider makes sure that the market place is fed with price information that will not put in jeopardy a similar strategy in other bids where it will be the incumbent.

(ii) New customer or third-party incumbent supplier

(276) In such bids where neither the merged entity nor the Concert alliance is the incumbent, the statement of objections argued that both entities would have equal chances to win the bid and would know that they would benefit from advantages not available their smaller competitors.

(277) The statement of objections described the following strategy. Their first strategy would thus be to put in an offer with a portfolio of tailored services that, in principle, only the two or them would be able to offer, in other words to compete primarily on non-price factors at the first stage of the bidding process. Secondly, their pricing strategy would likely be to price initially within a given range (even though at the stage of responding to the RFP, pricing is not the most important issue). The top end of the range would be based on information derived from earlier bids where either of them was the incumbent. The bottom end, on the other hand, would be the maximum price at which they would be sure to exclude other bidders (if any).

(278) The statement of objections argued that it would be to the advantage of both the merged entity and the Concert alliance to win such bids and to acquire information. This would reinforce their reputation with customers as leaders while raising the barriers to entry and expansion for the other actual or potential competitors who would have to incur sunk costs that they could finance through earnings from a pre-existing portfolio of customers. Asymmetries in information about past bid history in favour of MCI WorldCom/Sprint and/or the Concert alliance induce each firm to sacrifice short-run profit by raising its price in order to build a reputation with the aim of consistently charging higher prices in the long run.

(d) **Sustainability of the parallel behaviour**

1. *Incentive not to deviate*

(279) The statement of objections found that both MCI WorldCom/Sprint and the Concert alliance would have incentives not to deviate from the parallel behaviour explained in recital 273 in a situation where bids are frequent. Each firm, by independent but parallel behaviour, exposes itself to the risk that the other firm undercuts it in the final stage of the bidding process, and that it loses this first bid. However, because the identity of the winner of the bid is immediately known, the cheating firm reveals itself as a non-cooperative firm. As there are frequent bids, it exposes itself to retaliation and therefore foregoes future extra profits that it could have derived from parallel behaviour. If the horizon is long enough (i.e. if there is a sufficient number of bids where both leaders can interact) the loss of future profits exceeds the immediate gain of cheating. Both firms having equal chances to participate and to win bids will be therefore better off coordinating. BT data mentions that MCI WorldCom/Sprint and the Concert alliance have participated in 1999 in more than 70 bidding procedures.

(280) From the win/loss information available, and the information on the market for the supplies to the top 200 companies it is clear that companies know the identity of the incumbent supplier to these large MNC customers. For example, according to Sprint: 'The account team is more likely to know about and list incumbent providers. Because AT{START_ENTITY}nbsp;& T and MCI WorldCom are the incumbent provider in a relatively high number of bids, they are more likely to be listed more often than competitors that are not incumbents as often.' ([72]) It is therefore easy to detect any deviation from the parallel behaviour.

(281) According to the statement of objections, the scenario outlined in recital 273 would lead to supra-competitive prices for some categories of contracts and to prices closer to market levels in other bids. It could be argued that the higher prices would not be sustainable as these customers would be made aware of lower prices charged in the industry. The statement of objections found that this was unlikely for the following reasons. First, such services are differentiated, and comparisons for customers on the basis of prices are difficult to draw. Indeed, even if the basic elements of costs are known, the specific needs of a given customer are not available to other customers. Secondly, it relies on the assumption that the two leading players would have an incentive to compete when one of them is the incumbent. As explained in recital 275, this is not the case. Neither could smaller players afford to challenge the incumbent as they would have to overcome the switching costs for the customer and the competitive disadvantages due to lower information, cost and quality.

(282) It could be further argued that as the market for the provision of global telecommunication services is increasing in value, this would lead to incentives to deviate from the parallel behaviour. The statement of objections dealt with this issue with the following argument. The growth when translated into number of customers is much lower, as there are not many new companies with global telecommunication needs. In addition, as the merged entity and the Concert alliance have equal chances to win new bids, the fact that they would compete on these bids does not undermine the stability of their parallel behaviour. It would rather further entrench their positions as dominant oligopolists, as this would make it even more difficult for the smaller players to get significant customers and would further feed their reputation.

2. *Smaller competitors and new entrants will not be able to challenge the parallel behaviour*

(283) The statement of objections stated that smaller competitors are very unlikely to be able to bid successfully against the two leaders for three main reasons.

([72]) […]*.

(284) First, because they do not have the same all-round qualities as the two main players on the market. As rated by their competitors, MCI WorldCom/Sprint and the Concert alliance have excellent global reach, a reliable global network with ample bandwidth in key markets; they also have an excellent product offering, covering both older technologies, for which a demand continues to exist, as well as the newer technologies, on which potential entrants appear to be relying.

(285) Second, competitors do not have the same cost and price information advantage as MCI WorldCom/Sprint and the Concert alliance. Cost advantage and price information are essential to be an active bidder with a credible chance to win at the end of the bidding process in the market, as bidding costs are high and bidding for contracts without such an advantage is extremely difficult to sustain. Indeed, competitors do not have the same sophisticated price information systems, cost-targeting coupled with greater scale and scope economies which the notifying parties and the Concert alliance enjoy. Finally, the statement of objections argued that they do not have the same larger customers' portfolios, essential to keep costs under control as well as an access to relevant information on rivals' costs through bidding price histories. This is borne out by competitors' evaluations of MCI WorldCom/Sprint and the Concert alliance which are consistently high, and no other competitor consistently matches that evaluation.

(286) It is indeed likely that the smaller competitors will have an interest in following the price signals sent by the two leading players. If they were to launch price wars in order to win customers, assuming that they were able to reach the second stage of the bidding process, they would run a high risk of the two oligopolists pricing at very competitive rates that would eventually force the smaller players out of the market. This would be sustainable for the two leaders as smaller players would participate in a much smaller number of bids than they do. Repetitive losses of deals would quickly make it unprofitable to remain on the market. The two leaders could also target retaliation against a given smaller competitor by competing forcefully on bids where it would be the incumbent.

(287) When a new entrant is seeking to bid, they will face the strengths of the two leading players, who will always have a considerable comparative advantage. A new competitor has to make major investments in network capacity, points of presence and sales teams, incurring costs which are already sunk for MCI WorldCom/Sprint and the Concert alliance. So, and at least for the first series of bids, while the incumbents might be willing to bid down to their average variable costs, the new entrants would not bid below their average total cost. A new potential bidder could be more efficient than the incumbent, but the latter would always be able to undercut it, thus deterring potential entry. Hence, the statement of objections found that MCI WorldCom/Sprint and the Concert alliance will be then able to renew the existing contract at non-competitive terms.

(288) The statement of objections also argued that entry can be also discouraged further because of the long periods of time that each bid takes. Even if the new entrant thought it had a prospect of winning a contract, it has to consider the length of time that will elapse before it receives any revenue.

(289) The statement of objections further suggested that possibilities for retaliation are increased by the presence of MCI WorldCom/Sprint and the Concert alliance as competitors in a number of different markets. These include the market for top-level internet connectivity, long-distance and international telephony in the United States and Europe and the ownership of international cable capacity. These activities in other markets make it possible for the discipline of the jointly dominant companies to be maintained in the GTS market, by increasing the possibility of punishment in another market.

(290) In the light of the above, the statement of objections concluded that it would be very unlikely that neither smaller competitors nor new market entrants would be able to prevent this parallel behaviour.

3. *Customers will not be able to challenge the parallel behaviour*

(291) The statement of objections stated that there are no obvious constraints on the demand side to prevent such parallel behaviour. It argued that if customers consider changing suppliers for whatever reason, they are faced with a number of expensive choices. They can return to self-provision, which, even if possible, which seems unlikely from customer replies, would be expensive and time consuming. However, customers indicated that '[t]he company will have a need for these services,

so there is no debate about whether or not we will purchase them.' or '[i]n case of a uniform price increase of an individual service, we would probably be forced to continue buying such a service'. The increasing sophistication of the services being offered to MNCs and the considerable time, cost and complications involved in changing supplier combined with the decreasing number of effective players on the market leads to a reduction in influence by the customer over the supplier.

(292) According to the statement of objections, the alternative for a customer who chose to move from MCI WorldCom/Sprint or the Concert alliance to another provider would be to contract with a smaller and inferior provider, and seek to do some service integration by themselves which would incur extra costs and could jeopardise the reliability of the network. This will add a powerful additional incentive for customers to stick with one of the two companies.

(e) **The parties' response to the statement of objections**

Bidding process

(293) The parties pointed to four aspects of the analysis by the Commission of the competitive bidding market as being faulty. First, not all bidding processes are two-stage ones. Some customers conduct sudden-death processes where the winning bid is chosen after the RFPs have been received, without the second stage of the bidding process referred to in recital 78. Second, the parties argued that the Commission does not give price the importance that it deserves in the bidding process, and that some customers have indicated that it is important in their reply. Third, the parties disagreed with the Commission that being facilities-based is necessary to operate on the GTS market to be a credible bidder, and that customers do not demand this from suppliers.

(294) On the other hand even if the bidding process were to be one stage rather than two, the tacit coordination might remain possible. All of the advantages of asymmetry of information, greater bidding experience and lower cost base would be as effective in other bidding structures since the purchaser would need to make a first, implicit or explicit, selection of the bidders based on quality.

Creation of collective dominance

(295) The parties pointed to four main areas why the merger will not lead to collective dominance between MCI WorldCom/Sprint and the Concert alliance. First, as outlined in recital 248, the merger will have no more than a *de minimis* impact on the market and the combined entity's market share. Second, again as mentioned earlier, the parties do not believe that the Concert alliance can be considered to be a single entity with an aggregated market share. Third, the parties argued that there is no economic basis for the concept of collective dominance in the post-merger GTS market. Notably, the parties explained that in bidding markets, suppliers are able to price-discriminate between customers. Moreover, firms with a small market share e.g. Equant and Cable & Wireless are able effectively to constrain the behaviour of companies with larger market shares. Finally, there is no legal basis for the finding of collective dominance.

(296) In respect of the legal grounds for a collective dominance analysis, the parties quote the Kali and Salz judgement, amongst others, and say that the Commission must find that there is moderate growth on the demand side, with inelastic demand and insignificant countervailing buyer power in order to find collective dominance. The supply side has to be highly concentrated with high market transparency for a homogeneous product, mature production technology, high entry barriers and suppliers with financial links and multi-market contacts. The parties alleged that the statement only focused on and failed to prove the existence of homogeneity, high barriers to entry, market transparency, inelastic demand and stagnant growth, mature production technology and retaliation. In addition, according to the parties, the statement overlooks a key factor identified in Gencor/Lonrho, namely countervailing buyer power.

(297) The parties accuse the Commission of mischaracterising the supply side of the GTS market. First, they state that the Commission does not accurately represent the heterogeneous nature of the products being supplied to customers. Second, they assert that the Commission's analysis of costs is self-contradictory and that different suppliers' cost models are different. The parties challenge the Commission's analysis of the homogeneity of the GTS market as they say that no two packages are identical and are tailored to the needs of the customer.

(298) As regards high barriers to entry, the parties argue that neither the brand, the existing portfolio of customers, the costs of bidding, the experience in previous bids nor

the ownership of facilities amount to high barriers to entry in the GTS market.

(299) The parties explained that the amount of information available to bidders during the bidding process is much less than the statement says.

(300) The parties argued in their reply that the market is growing rapidly, and that demand is sensitive to price, contrary to the statement of objections. The parties stated that technological change is advancing rapidly in the market and that customers will demand it when they are comfortable that the new technology will serve their needs. The parties concluded that any possibility for retaliation would mean that the GTS market was operating as a cartel.

(301) Finally, the parties asserted that the statement makes no mention of the countervailing buying power of GTS customers, where customers have sheer size and sophistication and control information and contract lengths. The parties indicated that buyers are sophisticated and have countervailing buyer power. In particular, they pointed to the presence of consultants who act on behalf of customers and the tendency of companies to use more than one supplier with the possibility of transferring between them at a lower cost than would be the case for a new bidding process.

Conclusion

(302) The Commission recognises that it was not able to show the absence of competitive constraints from actual competitors such as Equant or Cable & Wireless to the merging parties and the Concert alliance. An important consequence of the existence of such competitive constraints is that the demand could exercise countervailing powers against any parallel behaviour by the two leading players. Indeed, customers could foster the emergence of other leading players by contracting with the existing smaller competitors. Therefore, one of the key factors to examine when proving the creation of a collective dominant position, i.e. the absence of possibility for the demand to counterbalance the position of the possible oligopolists, could not be shown. Regardless of the merits of the other arguments put forward by the parties in their Reply, the Commission decided not to pursue further its objection related to the market for providing global telecommunications services.

C. *INTERNATIONAL VOICE TELEPHONY*

(303) As to the international voice telephony market, the Commission has received a number of critical comments from US-based and EU-based operators that the merger would lead to the creation of a dominant position on the international voice telephony market as a result of the parties' important position together with AT & T on the US retail or wholesale long-distance markets.

(304) The Commission's assessment of the competition issues raised by third parties has led to the conclusion that if there was any risk of the creation or the strengthening of a dominant position in the meaning of Article 2(3) of the Merger Regulation on the market for international voice telephony, this would be a consequence of dominance on domestic US retail and/or wholesale long-distance markets. However, it is uncertain that any dominant position will be created or strengthened as a consequence of a dominant position on another market. For this reason, it cannot be said that the merger between the parties on the US long-distance markets will have immediate, substantial and foreseeable effects on the European Community.

(305) There are two principal ways for a European carrier to convey telephone calls between Europe and the US.

— The first is for the European carrier transporting the phone call to agree with a US carrier that it will hand over the traffic at a notional point in the middle of the Atlantic (half-circuit). This is subject to commercial negotiations and usually there is a financial settlement only if one party sends more minutes of phone calls than the other. A condition sine qua non for such transaction to take place is that each carrier is likely to bring at least an equivalent amount of minutes to the other.

— The second is for the European carrier to own a full circuit across the Atlantic and to contract with an American carrier to convey and terminate the phone calls on the US territory.

(306) In both instances, the phone call will follow a similar route once it lands on the US side. It is first conveyed by long-distance operators to a local or regional exchange point and then the call is eventually terminated by a local exchange carrier. End-consumers typically purchase local loop telephony services from local exchange carriers and long-distance (including international) services from the long-distance operators.

(307) AT & T, MCI WorldCom and Sprint are the clear leaders on the retail side of the long-distance market. This seems to be due in particular to the high recognition of their brands by end-consumers. These three companies are also the only operators owning a network covering the whole of the US territory. A number of other operators own networks covering a material part of the US while some others are simply resellers of long-distance conveyance. This diversity of long-distance operators has resulted in a wholesale long-distance market that is generally described as competitive.

(308) The proposed merger between MCI WorldCom and Sprint reduces the number of tier-one players in the US long distance industry from three to two. A number of complainants have explained that in so doing the transaction would lead to an increase in the prices of international calls between the USA and Europe. Two theories have been submitted to the Commission.

(309) Under the first theory, post merger, AT & T and MCI WorldCom/Sprint would be able to leverage their unique coverage of the US territory in the long-distance market into a joint dominant position in the wholesale long-distance market. They could dictate their conditions to European carriers that would want to settle their international calls with them or would want them to convey over the long distance the calls that they transported to the US shore.

(310) This alleged effect of the merger appears however unlikely to occur. The parties have shown that only 12 local territories (LATAs) would see the number of long-distance players being reduced to two by the merger. These areas (for instance parts of the Midwest of the United States and Alaska) are sparsely populated and represent less than a percentage point of the total long-distance phone calls in the USA. Moreover, even the complainants have accepted that it would be difficult for AT & T or MCI WorldCom/Sprint to bundle their long-distance offering to these desolate regions with the long-distance services to the rest of the US territory. This assessment relies however on the assumption that the retail long-distance market(s) remain competitive. If that was not the case, it might be that the parties would abuse their dominant position on the retail long distance market by squeezing their wholesale competitors out of the market by internalising their current purchases on the wholesale market and other behaviour.

(311) The second theory focuses on the market for retailing of long-distance telephony. The concentration would lead to the creation of a dual dominant position held by AT & T and MCI WorldCom/Sprint on that market. Thanks to that position these two players could capture most of the international telephony minutes to be exchanged with European carriers. This would put both players into a strong bargaining position vis-à-vis the European carriers and enable them to impose their conditions in the settlement negotiations.

(312) However, as long as the wholesale long-distance market remains competitive, the European carriers would have the option of carrying the calls on their own transatlantic circuits and then recourse to the wholesale long-distance market to have them conveyed directly over the long distance instead of using settlement transactions.

(313) It therefore follows that for the merger to have anti-competitive impact on the international voice telephony markets, the Commission would first need to establish that the new entity would become jointly dominant with AT & T on the retail long-distance market(s) and that secondly AT & T, MCI WorldCom and Sprint would be able to extend that dominance to the wholesale long-distance market. Such an extension do not appear be sufficiently foreseeable and immediate to grant the Commission jurisdiction under the Merger Regulation over this aspect of the transaction.

(314) Assuming that there was dominance on the retail long-distance market, it appears difficult to predict that this would necessarily translate into dominance on the wholesale market. Demand in the wholesale market comes not only from retailers but also from customers such as big corporations or major foreign operators. Even if the merged entity and AT & T each decided to integrate their operations vertically and to stop buying in the wholesale market, the remaining demand and supply would still be able to match each other. It would probably take a deliberate abuse of their retail long-distance dominant position for the parties to be achieve a dominant position on the wholesale market. It cannot therefore be concluded that the effects on the international voice telephony market of the dominant position acquired by the parties on the retail long-distance market would be immediate and foreseeable.

(315) For these reasons, the Commission had no jurisdiction under the Merger Regulation to examine the effects of the merger on the US long-distance markets.

VI. **UNDERTAKINGS**

(316) On 8 June 2000, the notifying parties submitted to the Commission an undertaking regarding the divestment of the Sprint Internet business. The text of this undertaking is attached to the [confidential version of the present decision]*. On 27 June 2000, the parties withdrew the submitted undertaking.

A. *SUMMARY OF THE PROPOSED UNDERTAKING*

1. ACTIVITIES

(317) The parties proposed to divest the public Internet activities of Sprint (hereafter 'Sprint Internet'). This included the following service lines.

Dedicated Internet access

(318) Also known as SprintLink, this service offers high-speed continuous access to the Internet over Sprint Internet's backbone at speeds ranging from 56 Kbps to 2,5 Gbps (OC48). SprintLink service is available globally through 320 points of presence (POPs) in the USA and six POPs in Europe.

Dial Internet access

(319) Also known as DialNet, this service provides 56 Kbps and ISDN dial-up Internet access and related services to ISPs and retail customers connecting them to Sprint's networks through more than 450 POPs located throughout the USA DialNet service is also sold to over […]* business customers and enterprises in the USA as 'IP Dial' remote access service, which enables businesses to provide their mobile employees around the world with secure dial-up access to intranets, extranets and the Internet.

Internet virtual private networks

(320) Sprint Internet's Internet virtual private networks (IVPN) service is an enhanced network protocol service that enables companies to establish continuous, high-speed, secure connections with geographically dispersed employees, customers, partners and suppliers over Sprint's dedicated and dial Internet access networks.

Web hosting

(321) These services allow companies to manage their Internet content and applications on a shared infrastructure managed by Sprint Internet at its network nodes and data centres.

Managed security

(322) Such services are designed to protect customers' Internet traffic and internal networks from unauthorised access. For example, Sprint Internet provides fully integrated managed firewall and user authentication services, such as SecureID and ACE/Server software, with a suite of managed IP security solutions.

2. ASSETS

(323) The proposed undertaking includes all US and international routers, servers, modems, ports, domain name and authentication servers for Internet access, web-hosting servers, servers for dial network and other equipment deemed necessary by the parties to operate Sprint Internet.

(324) Where necessary, the parties have offered to make shared systems, infrastructure and personnel available to the purchaser of the divested business […]*.

(325) […]*.

(326) The parties propose, at the option of the purchaser, to enter into one or more network-specific supporting agreements in order, according to the parties, to give full effect to the proposed divestiture […]*.

(327) Such agreements would include the following:

— Network facilities agreement […]*.

— Network transport agreement […]*.

— Local access agreement […]*.

3. PERSONNEL

(328) According to the parties, Sprint Internet will have between […]* dedicated employees, including over […]* operations and engineering professionals and over […]* sales and sales support personnel, located throughout the USA and Europe. The parties explain that these professionals possess the experience in developing, designing, marketing, selling, delivering, integrating, managing and maintaining Internet network infrastructure and services that is necessary to operate Sprint Internet.

(329) As to the sales personnel, the parties argue that Sprint Internet currently uses multiple sales and support channels to respond to the demand. These channels include a […]*.

(330) In December 1999, Sprint created a […]*. According to the parties, these services are often purchased by executive level employees and have a significant impact on how a company differentiates itself from its competition. […]*.

(331) Finally, the parties also explained that during 1999, […]*.

(332) The merging parties have undertaken not to employ any of the employees transferred from Sprint to the purchaser without the purchaser's prior consent for an agreed period after the sale of Sprint Internet. In addition, for an agreed period after the sale of Sprint Internet, neither WorldCom/Sprint nor the purchaser would solicit any employee of the other engaged in certain Internet activities without the other's consent.

4. CUSTOMERS

(333) The parties intend to transfer Sprint's entire Internet customer base, including ISPs, small business Internet access customers, large commercial customers, government customers and web-hosting providers.

(334) Customer information such as customer lists and existing historical data relating to the provision of Internet services to that customer base and all existing associated contracts for Sprint Internet's wholesale and retail customers would be transferred to the purchaser.

(335) Some contracts may require consent from the customer before transfer. For these contracts, Sprint would use reasonable best efforts to obtain the necessary consents and would offer additional inducements as deemed necessary. For contracts where the necessary consent could not be obtained, MCI WorldCom/Sprint undertakes to keep the traffic on the divested network and pass the associated revenue through to the purchaser.

(336) The notifying parties undertake not to solicit any existing customer of Sprint Internet that is not also an existing Internet service customer of MCI WorldCom at the time of closing, with the purpose of providing that customer with the Internet access service it is purchasing from the Sprint Internet. […]*. There is no specific non-solicit clause for the Internet services other than the provision of dedicated access.

(337) In addition, the parties undertake not to take any steps to cause the transfer of Internet services business from Sprint to MCI WorldCom, or to multihome such business on MCI WorldCom networks beyond the ordinary course of business, prior to closing.

5. SETTING-UP OF AN AUTONOMOUS UNIT

(338) […]*.

B. *ASSESSMENT*

(339) Given the high growth of the Internet and the importance attached by customers to the quality of service, any proposed business for divestiture should be in a position to compete fully and effectively from the date of transfer of ownership. Any difficulty met by the divested entity would result in a limitation of its growth and lead quickly to a relative lowering of its market share. The combination of the uncertainties exposed in the recitals below make it highly unlikely that the divested entity could exercise in the short to medium term any competitive constrain on the parties. In addition, the text of the undertakings raises numerous issues that increase even more the uncertainties as to the efficacy of this proposed remedy.

(340) The proposed undertakings raise fundamental doubts on at least six grounds: (i) the scope of the services divested is too narrow; (ii) the divested entity would have little power to retain its customer base; (iii) there are many uncertainties as to the experience and know-how of the personnel to be transferred; (iv) the divested entity will remain dependent on MCI WorldCom/Sprint for its continued operation and any attempt to gain independence would be costly and time consuming; (v) monitoring would be a difficult task; and (vi) there is uncertainty on some assets to be transferred.

1. SCOPE OF THE SERVICES TO BE DIVESTED IS TOO NARROW

(341) The proposed undertakings provide for the sale of the activities related to the sale of Internet dedicated access services, the sale of Internet dial-up access services, the sale of web-hosting services, the sale of firewall services and the sale of Internet virtual private network services. All of the services that the parties intend to divest run over the public Internet. There are however other services that use the Internet protocol (called IP services) that the parties are not proposing to be included in the divestiture. The parties argue that only the IP services that are carried over the public Internet should be divested.

(342) However, the Internet protocol (IP) used to carry the data generated is also used to carry data for the virtual private network type of services (intranets, extranets, voice over IP, etc.) as well as other enhanced services. Generally, such services do not use the public Internet but are sometimes partly carried over the public Internet.

(343) In addition, public Internet services as well as other services carried over IP are provided through using part or all of the underlying network facilities (transmission facilities as well as routers, switches and modems connected to the underlying transmission facilities). This underlying Internet network infrastructure is also used for Sprint's telecommunications needs (voice and data).

(344) During the course of the Commission's investigation, third parties have explained that the inclusion of intranets and extranets and other enhanced services carried over IP in the package to be divested is necessary to ensure that the divested entity would be a full competitive force. First, according to third parties these services represent the highest expected growth area in Internet-related services (up to over 200 % growth rate between 1999-2000). Secondly, customers usually purchase such services from the same provider as the one who provides access to the Internet. Finally, customers also purchase bundles of services that include both Internet services and non-Internet services such as ATM and private-line services. Because the top-level Internet connectivity provider's market power reflects both its network and its customer base, a divestiture should encompass all of these.

(345) This was indeed the position taken by Sprint in its submissions to the Commission in the course of the WorldCom/MCI procedure in 1998 […]* ([73]).

(346) In WorldCom/MCI, the Commission stated that it was not necessary to include enhanced IP services for three reasons. First, it noted that some IP-based VPNs might be based on other underlying protocols such as X25, Frame Relay or ATM and that the Internet component of the VPN might be very small. Secondly, it explained that the provision of intranets or extranets was in general less complex than a public Internet network, and in principle easier to run, hence not requiring the special skills which were required for the Internet at large. Thirdly, the Commission considered it doubtful whether the offering of services such as intranet or extranet could provide a gateway to the offering of Internet services.

(347) The market investigation conducted by the Commission in the present case has shown that these conclusions are no longer applicable. The trend in the industry is to optimise the use of the Internet protocol by limiting to the maximum the superposition of layers of protocols on the underlying facilities. This is exemplified by Sprint and third partie technological choices. Irrespective of the underlying transport protocol (IP, Frame Relay or ATM), applications and services are being based on IP […]* ([74]). As to the level of complexity of the provision of enhanced IP-based services, it appeared from the parties' own statements and from the third parties' submissions that such services are usually tailored to the needs of the customers and are by definition complex. Finally, as to the link between the offering of public Internet services and IP based enhanced services, it should be noted that all of the leading Internet access providers provide both categories of services. According to both third parties and Sprint, customers are increasingly buying a bundle of services and products and end-to-end solutions.

([73]) […]*.
([74]) […]*.

2. THE DIVESTED ENTITY WOULD HAVE LITTLE POWER TO RETAIN ITS CUSTOMER BASE

(348) […]*.

Customers for Internet and telecommunications services

(349) […]*. Some third parties have explained that by combining the connections to a customer location, bundling of Internet and telecommunications services brings economies of scale.

(350) According to the Commission's calculations based on data provided by Sprint, approximately […]* % of the Internet revenue of Sprint for the year 1999 is generated by customers purchasing only Internet services from Sprint. The merged entity will therefore continue to be in contact with […]* % (in terms of revenue) of the customers. When the terms of these contracts will end […]*, these customers may turn back to the merged entity. The parties have endeavoured to address that issue by proposing a non-solicitation clause in their proposed undertaking. This is evaluated in recital 358 *et seq*.

(351) Similarly, excluding Sprint's contract with […]*, […]* % of Sprint Internet turnover was generated by customers ([…]* % in number of customers) who spend at least as much on Internet services as on other telecommunications services purchased from Sprint.

(352) This means that knowledge about the customer needs, technical specificities, etc. would remain with MCI WorldCom/Sprint after the proposed divestiture. This retention of customer knowledge will be aggravated by two other factors.

(353) First, […]*.

(354) Secondly, MCI WorldCom/Sprint will in any case need contact persons to serve the remaining telecommunications needs of most of the Internet customers. […]* As the proposed divestiture is structured, it appears that a significant number of account managers or other personnel with knowledge of the account will not be transferred. This is certainly true for those customers who spend more on telecommunications services than on Internet services ([…]*). Sprint would therefore retain knowledge about the customer Internet needs and maintain on-going relationships with most of the divested business customers.

Multihomed customers to MCI WorldCom and Sprint

(355) […]*. On the basis of information supplied by the parties and that they describe as not complete, it appears that […]* % of the […]* related Sprint Internet revenues for 1999 is generated by customers who purchase Internet services from MCI WorldCom as well. […]*.

(356) The consequence […]* of multihoming with Sprint Internet and MCI WorldCom is that in addition to the general knowledge of the account on the Sprint side for the other telecommunications services, the merged entity would continue to provide Internet services to many divested customers. The parties have argued that it is very easy for a customer to shift its demand among the existing providers of Internet services. Any perceived limitation in the ability of the divested entity to provide top-quality services would be likely to be punished by customers shifting their demand towards MCI WorldCom/Sprint. As the merged entity will be made aware of the new needs of the multihomed customers as they arise through its existing commercial relationship, this may make it easier for the merged entity to gain a competitive advantage over the divested entity.

Earthlink

(357) Earthlink is, after AOL, one of the largest retail dial-up Internet access providers in the USA. Sprint has a long-lasting relationship with Earthlink that takes the form of rights over […]* % of the share capital of Earthlink and extensive supply agreements in the Internet field. Earthlink represented […]* % of the overall Internet revenues of Sprint in 1999. The proposed undertaking would lead to a transfer of the Internet contracts but does not address Sprint's link in Earthlink capital. As the main shareholder in Earthlink, Sprint will have substantial influence over the renewal of its transferred contract. This may jeopardise the long-lasting nature of Earthlink's relationship with the divested entity.

Absence of protection of the divested business

(358) It could be argued that the parties could propose a non-compete clause to protect the divested entity from witnessing its customers feeding back to MCI WorldCom/Sprint. The parties have not included such a full non-compete clause in their proposed undertaking but only a limited undertaking not to solicit Sprint's Internet customers.

(359) […]*.

(360) It should be noted that Sprint had drawn the Commission's attention to this potential problem in the WorldCom/MCI procedure. […]* ([75]). […]* ([76]).

(361) An additional difficulty that may arise involves customers who signed contracts that require their consent to be transferred to another person than Sprint. According to the parties and on the basis of limited sample of contracts, this represents a […]* part of Sprint Internet revenues. […]*.

(362) It therefore appears that the Internet customer base of the divested entity would be likely to shrink significantly if the proposed divestiture was accepted. This would result in a materially smaller competitive force on the market.

3. THERE ARE MANY UNCERTAINTIES AS TO THE NUMBER, EXPERIENCE AND KNOW-HOW OF THE PERSONNEL TO BE TRANSFERRED

(363) According to Sprint, […]* of the staff to be allocated to its future Internet business unit are already dedicated to Internet activities. The other […]* are only partially dedicated.

(364) There are doubts as to the experience of most of the identified personnel (for the moment, only the alleged dedicated personnel have been identified). For instance, many of the selected persons have […]* experience in the Internet field. This is probably due to the […]* teams dedicated to the sale of Internet products.

(365) The doubts are even greater as regards the staff that spend only part of their time on Internet services. Such personnel have yet to be identified. The following table sets out the extent to which each of the units constituting Sprint Internet will include either staff already dedicated to Internet or staff partially involved in Internet activities. It shows the proportion of staff for each of these units that will replace persons spending only part of their time on Internet issues. Apart from the Operations and Engineering unit, […]* of the staff in all other units will be taken from staff previously not fully dedicated to Internet activities.

	Dedicated	FTE		Total	% FTE
			[...]*	[...]*	[...]*
[...]*			[...]*	[...]*	[...]*

([75]) […]*.
([76]) […]*.

	Dedi-cated	FTE		Total	% FTE
[...]*			[...]*	[...]*	[...]*
[...]*			[...]*	[...]*	[...]*
[...]*			[...]*	[...]*	[...]*
[...]*			[...]*	[...]*	[...]*
[...]*			[...]*	[...]*	[...]*
[...]*			[...]*	[...]*	[...]*
[...]*			[...]*	[...]*	[...]*
			[...]*	[...]*	[...]*
Total			[...]*	[...]*	[...]*

Note: FTE stands for full-time equivalent, a notional number that represents the number of persons who would need to be working full time to replace staff who spend only part of their time on Internet activities.

(366) It is well known that any divestiture encounters issues of cultural adaptation. Given the formally integrated structure of Sprint Internet, such issues would be likely to be raised twice, once at the time of selecting the relevant staff to be allocated to Sprint Internet and again at the time of integrating the divested entity into a purchaser organisation. As each of these units are essential to the proper functioning of the entity proposed for divestiture, the uncertainties are multiplied by the reliance of each of them on 'FTE' personnel.

(367) When comparing the staff count of the proposed divestiture to competitors, the […]* number submitted by the parties appears to be materially lower. Indeed, AT & T, GTE-Genuity, Cable & Wireless and obviously UUNet all put forward figures in the region of or higher than 2 000 people. This puts into question the proposed number of personnel to be transferred. This discrepancy could be explained by omissions. For instance, it does not appear to include […]* staff. It could also be explained by the fact that, because it will, *inter alia*, not be facilities-based, the divested entity will be dependent to a significant degree on MCI WorldCom/Sprint for the continuation of its activities […]* ([77]). This latter aspect is addressed in the following recitals.

(368) In its WorldCom/MCI decision, the Commission stated that the number of employees would depend to a large extent on the identity of the purchaser, and its level of involvement in the same type of Internet activities as MCI. For that reason, the undertakings had left open the number of employees to be transferred as a matter for negotiation between the vendor and the acquirer.

(369) As reflected in Cable & Wireless' FCC submission, its acquisition of Internet MCI met a number of difficulties and this shows that it is not easy for a potential purchaser in the circumstances of a forced divestiture to evaluate the number of staff and to identify the relevant persons needed to run the divested business as an effective and immediate competitor. This is particularly so in the case of the divestment of an integrated business where information is not readily available. This is further substantiated by the Federal Trade Commission study on remedies ([78]). The Commission cannot therefore rely on negotiations between the notifying parties and any third party to identify the adequate number of staff to be transferred.

4. THE DIVESTED ENTITY WILL REMAIN DEPENDENT ON MCI WORLDCOM/SPRINT FOR ITS CONTINUED OPERATION AND ANY ATTEMPT TO GAIN INDEPENDENCE WOULD BE COSTLY AND TIME CONSUMING

(370) The Internet activities of Sprint […]* within Sprint, many of its support services […]* provided by Sprint. […]*.

(371) Sprint Internet dedicated access customers connect to Sprint's network via a private line to the local exchange carrier which in turn connects to one of the 320+ Sprint POPs. These POPs are […]*. From the POP, the customer is connected to a backbone node (that includes equipment such as routers and switches) via a backhaul line. A backhaul line does not belong to the backbone. The same architecture is applied in the case of the dial-up services.

(372) It is important to note that all of the abovementioned assets (POPs, backhaul lines and backbone) are multipurpose. This has two consequences. First, Sprint Internet bears only internal transfer prices for the use of these facilities as opposed to relying on market prices that are normally materially higher. In addition, as explained in recital 140, John Sidgmore, Vice-Chairman of MCI WorldCom, explained recently that there is a shortage of available capacity on the market. This is confirmed by submissions from third parties. Secondly, the way the backbone has been structured was to maximise economies of scope of Sprint's existing telecommunications facilities.

([77]) […]*.

([78]) Federal Trade Commission, *A Study of the Commission's Divestiture Process* (1999), www.ftc.go v/os/1999/9908/ind ex.htm#6.

(373) The same business choices have been applied to the operational support services […]*.

(374) The parties offer to sign support services agreements with any purchaser to provide for continuation of these shared services during the transition period needed by the purchaser to set up or migrate to its own systems or processes.

(375) The proposed undertakings provide for support agreements for the following services: collocation of Internet equipment within Sprint's premises ([…]*), network transport capacity ([…]*), local access agreements (no indication on timing and pricing on commercial terms), other operational services (customer service report, order entry, billing services, network management, network provisioning and other services reasonably required). […]*.

(376) However, the Commission's investigation and the purchase of Internet MCI by Cable & Wireless show that such agreements can be extremely complex to draft and difficult to implement and monitor. In addition, the purchaser would depend to a material extent on the merged entity for the continuing operation of the former Internet activities of Sprint. This will negatively affect the cost basis and the quality of service of the divested entity.

(377) It should for instance be noted that the Internet part of GTE, now named Genuity, has just been separated from its mother company to be floated in the market. To enable Genuity to remain a genuine competitor, the new entity will also own its network and will not depend on a third party for its underlying facilities.

Collocation

(378) Third parties have explained that to be fully effective, a collocation agreement needs to enable the purchaser to protect the confidentiality of its business actions (changes in equipment, free access, etc.), to have enough space to expand the equipment to meet future growth and to avoid electromagnetic interference from cables on switches.

(379) To enable the divested entity to continue to operate the divested equipment effectively and independently from the merged entity, third parties argued that a collocation agreement should include detailed provisions concerning the space made available to accommodate the transferred assets. For instance, personnel of the divested entity should, independently of the merged entity, be able to access the collocated equipment and to deploy and/or repair equipment. It is not sure that such a space would be readily available within all Sprint's POPs.

(380) In addition, third parties explained that the purchaser would need to be able to expand collocated facilities within Sprint's POPs (including the right to interconnect existing installations within Sprint's premises with new installations located in other premises and the right to cross-connect facilities). It is not obvious that there would be space and personnel available to accommodate such expansion.

(381) Furthermore, they drew the Commission's attention to the fact that there are no standards for the pricing of such collocation services and that generally they avoid collocating with a competitor.

(382) Any purchaser of Sprint Internet would have to collocate at Sprint premises for a transitional period starting from the date of closing and until customers, equipment and networks have been fully migrated to the purchasers' own facilities. It is estimated by a majority of third parties […]* that such a process is very lengthy and takes from two to four years to complete (see below). This means that the purchaser will be dependent on the merged entity for collocation for a very long period. During that period the merged entity may benefit from confidential commercial information on the divested entity actions, may limit the growth of the divested entity by simply lacking space or allocate available space to accommodate its own growth first and may impose costs difficult to monitor on the purchaser.

(383) In addition, given the circumstances of a forced divestiture, any purchaser would lack the necessary information and time to negotiate optimally collocation agreements and would have to take Sprint's proposed draft of the agreement.

Network transport agreements and local access agreements

(384) Such agreements would provide for the underlying cable facilities to connect the customer premise to a POP, to connect the POP to the backbone (backhaul) and to supply the cables used by the backbone.

(385) These agreements raise similar issues as for the collocation of premises. Third parties explained that the provision of such services is difficult to price. First, these services are currently supplied internally within Sprint. The cost of provisioning these services benefits from economies of scope drawn from the multiple use of the network facilities. Therefore the current cost of use is materially lower than any market price. Secondly, some of the underlying services are said not to be available on commercial tariffs. This is notably the case of the largest capacity cables (as OC-48) that are currently put in place to accommodate the growth of traffic.

(386) In addition, the divested entity will be dependent on MCI WorldCom/Sprint to meet increased traffic demand (for further capacity, connections, etc.). The merged entity would benefit from confidential commercial information from the divested entity which would allow it to control the growth and network costs of the divested entity.

(387) Finally, it was explained that such agreements are of a very complex nature. Any purchaser would lack the necessary information and time to negotiate optimally such agreements and would depend on Sprint's proposed draft of the agreements.

Migration

(388) It could be argued that the shortfalls exposed above attached to the conclusion with the major competitor on the market of collocation agreements, network transport agreements and local agreements could be avoided by a swift transition to the facilities of the purchaser.

(389) The Commission in its WorldCom/MCI decision noted the view of third parties that the purchaser of Internet MCI would be dependent on the seller and that this would not provide a long-term solution. It was also noted that to be a successful top-level Internet connectivity provider one needs to be facilities-based. Indeed, a purchaser who had to lease facilities permanently from a competitor would be dependent on that competitor. The Commission concluded that an acceptable buyer ought to be in a position either to migrate its traffic more or less immediately onto an existing alternative network, or to build its own network in a reasonable period of time and then migrate traffic onto it. The Commission tried therefore to assess whether arrangements for collocation and other network services provided adequate time for the migration of the traffic onto a new network. It concluded on the basis of third-party submissions that a two-year period for which preferential terms were offered would be sufficient to permit the transfer of all relevant activity to the alternative network and to permit that network to operate fully independently of MCI.

(390) However, both third parties and previous migrations by third parties and by the parties themselves show that migrating an Internet business is a very complex task and may take between two to four years to complete.

(391) The construction of an Internet backbone involves a number of successive steps. First, the backbone operator needs to define its network architecture. Secondly, it needs to build new POPs. Thirdly, it needs to build out the transition network to connect the POPs. Fourthly, it needs to develop or migrate operational support systems. After this, the process of migrating the customers can commence.

(392) The most time-intensive part of the whole process is the migration of the customers. The main constrains on an Internet connectivity provider who would want to migrate from one network to another is to ensure that customer satisfaction is maintained during the migration process. For that reason, past migrations have avoided sudden substitution of connections and rather opted for a gradual approach where the connections to each of the customers are duplicated during a transitional period. To change the connection to the customer, the supplier will need to provide new local exchange circuits and to get the help of the customer to install new equipment or change the connections of the lines.

(393) This process is labour intensive. As explained above, it is not sure that the divested entity would have the necessary staff resources to run its day-to-day business. Even if the purchaser hired (at its own costs) a significant number of additional staff for the purpose of migrating customers, the process of migrating customers would be very lengthy. In all instances, the time, management attention and cost of the migration would have to be borne by the purchaser.

(394) This means that the network costs of the divested entity will be determined by negotiation with MCI WorldCom/Sprint until the purchaser has been able to migrate its networks to other facilities after a period of at least two years.

Operational supporting services

(395) Most of Sprint Internet operational supporting services […]*. The parties explain it will be easy to isolate Internet specific tasks within their systems. However, they undertake to provide such services to the divested entity but not to transfer systems to the purchase.

(396) John Sidgmore, Vice-Chairman of MCI WorldCom, recently stressed the importance of such services: 'the real success drivers will not be transmission speeds — it will be operating efficiency, Internet marketing and billing' ([79]).

(397) The reliance of the divested entity on the merged entity raises a number of risks. First, the merged entity may benefit from confidential commercial information drawn from the existence of integrated systems. Secondly, the ability of the divested entity to innovate on operational support services will be limited because it would need the agreement of its main competitor, MCI WorldCom/Sprint.

(398) The building-up of new systems is a lengthy and costly process and would be likely to take more than one year to set up. The parties themselves estimate that migration of systems would take a year to complete ([80]).

Conclusion

(399) It appears from the above developments that the absence of facilities and systems from the entity that the parties are proposing to divest leads to significant risks as to efficiency and competitiveness of the divested entity, which would be dependent for a significant time on its main competitor.

(400) John Sidgmore, Vice-Chairman of MCI WorldCom, stated recently that 'if you own the network, you have better control of cost and quality and we get to decide when to implement new products and services' ([81]).

(401) Sprint explained in 1998 that the Internet MCI business was integrated within MCI in a similar manner to the integration of Sprint Internet. […]*.

5. MONITORING WOULD BE EXTREMELY DIFFICULT IF NOT IMPOSSIBLE

(402) It may be argued that a trustee could be put in place to monitor the proper implementation of the collocation, network transport, local access and other operational support systems agreements and ensure that the merged entity could not hinder in any way the development and independence of the divested entity.

(403) However, such a task would be extremely complex and the undertakings would be difficult to monitor. It would require many staff and skills and extended powers would have to be attributed to the trustee. Even assuming that a trustee with such extended talents could be found, the degree of complexity of the task increases materially the uncertainties attached to the effectiveness of the realisation of the remedy.

6. OTHER ISSUES

(404) […]* Furthermore, an undertaking to continue to peer does not necessarily mean that necessary increases in capacity are made at the relevant peering points. This increases the uncertainties as to the commercial viability of the proposed divestiture.

(405) The proposed undertaking provides for the right of use of intellectual property rights and other assignable permits or authorisations held by Sprint. Third parties have explained that the detention of intellectual property rights is of paramount importance in an innovation-driven market. Indeed, ownership of intellectual property rights makes it possible to innovate by, for instance, further extending the scope of the underlying intellectual property. This puts further into question the ability of the divested entity to be immediately an effective competitor.

7. CONCLUSION

(406) In summary, the proposed undertaking would have significantly altered the economics of the divested entity by separating it from the wider Sprint activities such as the underlying infrastructure, the operational support services and the necessarily arbitrary selection of staff to be transferred.

(407) As stated in paragraph 180 of the Commission's 1999 Annual Report on Competition Policy, when the nature of a competition problem becomes such that they require elaborate undertakings and mechanism to remove the concerns, the Commission has to consider carefully whether accepting complex undertakings will lead to a truly satisfactory result from the competition point of view or whether such transactions should instead be prohibited.

(408) In addition, future growth of the business will be constrained by the necessity to rely on the merged entity to provide for additional resources during a transition period of between two to four years until the purchaser would be able to migrate the divested

([79]) Keynote address at 'Supercomm 2000' conference held in Atlanta on 7 June 2000.
([80]) […]*.
([81]) […]*.

business to its own facilities. This migration, necessary for the competitiveness of the divested entity, will also entail substantial migration costs that will be borne by the purchaser.

(409) For the above reasons, the Commission concludes that the proposed undertaking would not have been appropriate to re-establish with enough certainty as to their effects immediate and effective competition on the relevant market for the provision of top-level Internet connectivity.

VII. **CONCLUSION**

(410) In the light of the above, it can be concluded that the merger of MCI WorldCom and Sprint would lead to either the creation of a dominant position […]* or the reinforcement of a dominant position […]* in the market for the provision of top-level or universal connectivity, as a result of which competition would be significantly impeded in the common market within the meaning of Article 2(3) of the Merger Regulation. The undertaking submitted by the parties on 8 June 2000 would not have remedied [the Commission's competitive concerns]*. The Commission has accordingly come to the view that the notified concentration is incompatible with the common market and with the functioning of the EEA Agreement.

HAS ADOPTED THIS DECISION:

Article 1

The notified concentration consisting of the merger between MCI WorldCom and Sprint is declared incompatible with the common market and the functioning of the EEA Agreement.

Article 2

This Decision is addressed to:

MCI WorldCom Inc.
1801 Pennsylvania Avenue
NW; Parkway
Washington, DC 20006
United States of America

Sprint Corporation
2330 Shawnee Mission
Westward
Kansas 66205
United States of America.

Done at Brussels, 28 June 2000.

For the Commission
Mario MONTI
Member of the Commission

ANNEX

UNDERTAKING SUBMITTED BY THE PARTIES ON 8 JUNE 2000 AND WITHDRAWN ON 27 JUNE 2000

[…]*