

DOCTRINE

Network neutrality: Legal Answers from an EU Perspective

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La neutralité de réseaux se réfère à un principe de politique concernant l'accès pour les contenus en ligne et les prestataires de service à l'infrastructure à large bande. Ce principe implique une obligation générale et ex ante de non-discrimination pour les opérateurs de réseau en accordant l'accès aux fournisseurs des services en ligne, dans le but d'exclure des pratiques telles que bloquer l'accès au contenu non affilié, dégrader la qualité de la transmission, imposer des restrictions déraisonnables ou donner la priorité au contenu affilié. La question de savoir si une telle obligation devrait être ancrée dans la législation a d'abord été intensément discutée aux États-Unis, et le sujet gagne maintenant de plus en plus l'attention dans d'autres régions du monde, y compris l'Union européenne, où le cadre réglementaire pour les communications électroniques est actuellement en révision. Cet article examine si les règles existantes fournissent déjà aux autorités compétentes les outils nécessaires pour agir contre les fournisseurs à large bande se rendant coupables d'une discrimination ou d'un blocage du contenu de ceux qui ne sont pas disposés à payer un "péage" pour l'usage des réseaux de vitesse plus élevée ou des services de qualité supérieure. Sinon, le cadre réglementaire devrait-il être adapté en conséquence? Il aborde le droit de la concurrence ainsi que le cadre réglementaire de 2003 pour les réseaux et services de communications électroniques, y compris les propositions législatives publiées par la Commission européenne le 13 novembre 2007 et les discussions ayant lieu actuellement au Parlement européen.

Network neutrality refers to a policy principle regarding access for online content and service providers to broadband infrastructure. It implies a general and ex ante obligation of non-discrimination for network operators when granting access to providers of online services, with the aim of excluding practices such as blocking access to non-affiliated content, degrading the quality of transmission, imposing unreasonable restrictions or prioritizing affiliated content. Whether such obligation should be anchored in regulation was first fiercely debated in the United States, and the issue is now gaining increased attention in other parts of the world, including the European Union, where the regulatory framework for electronic communications is currently under review. This article examines whether

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existing rules already provide the competent authorities with the necessary tools to take action against broadband providers discriminating or blocking content of those who are not prepared to pay a "toll" for the use of higher speed networks or better quality services. And if not, should the regulatory framework be adapted accordingly? It looks at both competition rules and the 2003 regulatory framework for electronic communications networks and services, including the legislative proposals published by the European Commission on November 13, 2007 and the discussions currently taking place in the European Parliament.

INTRODUCTION

Network neutrality refers to a policy principle regarding access for online content and service providers to broadband infrastructure. It implies a general and *ex ante* obligation of non-discrimination for network operators when granting access to providers of online services, with the aim of excluding practices such as blocking access to non-affiliated content, degrading the quality of transmission, imposing unreasonable restrictions or prioritising affiliated content. Whether such obligation should be anchored in regulation was first fiercely debated in the United States (US), and the issue is now gaining increased attention in other parts of the world, including the European Union (EU), where the regulatory framework for electronic communications is currently under review. In the context of this review, the discussion on network neutrality shifts the attention of the electronic communications industry from dealing with former network monopolies to the possible tension between network operators² and Internet content providers.³ The debate has raised a number of key questions, among which the most contro-

versial is whether network operators really are motivated to introduce price differentiation for Internet access by online service providers (in other words, network operators demand online service providers to pay a "toll" for the use of higher speed networks or better quality services), and if they have the power to do so, even in the absence of dominance. If the answer to this question is yes, the next crucial question is whether this will have a detrimental effect on consumer welfare, and whether policy makers and/or regulators should thus take action to stop this from happening. A final question that must then be asked is whether existing rules already provide the competent authorities with the necessary tools to take such action, or whether the regulatory framework should be adapted accordingly.

While the first two questions above are more economic in nature, the answer to the last one requires legal analysis. This article aims to conduct such an analysis⁴ by examining the major network neutrality problems in the light of EU law. To do this, the second part of this article will briefly present the debate on network neutrality, focusing on the cause of the debate and the main network neutrality problems. Next, an overview of the relevant EU legal provisions that may be applicable

² "Network operators" refer to operators that provide Internet access and data transmission services to their customers, which include both Internet end-users and Internet content providers.

³ "Internet content providers" refer to all operators providing content, applications, services, or content based on the platform of the Internet, to Internet end-users.

⁴ Building on earlier legal papers in this field, such as: F. Cioch (2007), *EU and P.L. Law*, "Network Neutrality in the EU" (2007) TELECOM Discussion Paper No. 2007-030, available at: <http://www.comlab.tue.nl/1015126>.

to network neutrality problems will be given. These provisions entail both sector specific rules – the so-called regulatory framework for electronic communications networks and services⁵ (the 2003 Regulatory Framework), which is currently under review – and competition rules. Attention will also be paid to the legislative proposals of the European Commission (the Commission) in the context of the ongoing electronic communications review⁶ and the discussions currently taking place in the European Parliament. Subsequently, the applicability of these rules to network neutrality problems will be tested to examine whether the current and upcoming EU legal frameworks can sufficiently tackle network neutrality problems. After arguing that some problems in relation to network neutrality are beyond the reach of the EU legal frameworks, the fifth part will analyse whether, and how, we should manage these problems in the EU. The final part will then present some conclusions.

I. WHAT IS NETWORK NEUTRALITY?

Although network neutrality has been described in many ways that emphasise different goals⁷, at the heart of the debate lies the question of whether or not the Internet

should be open, neutral and accessible to all on equal conditions.⁸ More specifically, a large part of the network neutrality debate centres on network operators that, based on their market power, discriminate against particular Internet content providers or certain types of legitimate⁹ data flow.¹⁰ This is especially the case with network operators who are vertically integrated or have alliances with content providers because these network operators are considered to have enhanced incentives to require other content providers (who may also be consumers) to pay a "toll" to use the higher speed networks that they in turn offer to end-users.¹¹

A. The cause of the debate

When looking at the network neutrality debate, the first question that comes to mind is why this issue was raised only recently, rather than when the Internet was created. The answer to this question can be traced back to the architecture of the Internet.

The Internet's original design is based on the so-called "end-to-end principle" as a way to maximise the efficiency and minimise the cost of the network. Based on this end-to-end principle, each data flow on the Internet is transmitted with best effort. When Internet users generate traffic load in excess of the routing and transmission capacities of the network, each data flow must be passed on a first-come-

⁵ See all the legal instruments within the 2003 Regulatory Framework at: http://ec.europa.eu/information_society/policy/econnw/current/index_en.htm.

⁶ More information on the reform of the electronic communications regulatory package can be found at: http://ec.europa.eu/information_society/policy/econnw/etnrow/index_en.htm.

⁷ For different definitions on network neutrality, see, for example: J. M. Pava, "The Benefits and Risks of Mandating Network Neutrality, and the Quest for a Balanced Policy," (2007) *International Economics and Economic Policy*, Vol. 3, pp. 644-668; J. G. Suss, "What Is the Network Neutrality Debate Really About?" (2007) *International Economics and Economic Policy*, Vol. 3, pp. 377-388; R.W. Hain and S. Weiser, "The Economics of Net Neutrality," *Economics Today*, June 2006, available at <http://www.us-brookings.org/publications/about.php?pub=3067>.

⁸ See Save the Internet, "Your Internet: Open or Closed", 2008, available at: <http://www.savetheinternet.com/blog/2008/02/16/your-internet-open-or-closed>.

⁹ Beyond data flow, violating, for example, human rights, copyrights, or patents, is not an issue concerning network neutrality.

¹⁰ See J. M. Pava, W.R. Lee and S. Weiser, "The State of the Debate on Network Neutrality," (2007) *International Journal of Communication*, Vol. 3, pp. 709-716.

¹¹ P. C. F. M. van den Heuvel, "Net Neutrality and Consumer Access to Content," (2007) *Telecom*, Vol. 3, Iss. 4, pp. 407-415 (410).

first-serve basis¹². Thus, while the Internet's current design performs quite satisfactorily for delay-insensitive Internet applications such as web browsing and email, it does not provide the quality of service (QoS) that is envisaged by many applications today. The end-to-end principle, as it is currently implemented, does not provide functionality that could guarantee the desired QoS for time-sensitive applications, such as Voice over Internet Protocol (VoIP), streaming video, online video gaming, *et cetera*.¹³

Since the beginning of the 1990s, engineers have started to develop new technologies relating to "traffic prioritisation" (also known as "traffic shaping" or "access-tiering"), in order to allow the Internet to support the required QoS in these newer time-sensitive applications.¹⁴ This new technology provides network operators with the ability to "prioritise" or "shape" traffic at the router level by installing software/hardware that can detect the identities of the sender/receiver of a data flow and/or its content and type. This gives network operators extensive flexibility in determining the way how data packets and traffic are sent or received on a given network. In case of congestion, network operators can thus transfer data with a higher priority better and faster than data with a lower priority.¹⁵ This new technology would thus guarantee the appropriate QoS.

However, while this new technology supports QoS, it also triggers concerns of discrimination, the common component of network neutrality problems.¹⁶ Because traffic prioritisation provides network operators with the ability to control data flows coming onto the networks, as well as to distinguish types of traffic and handle them differently, it also offers them the possibility to block, degrade or prioritise the data transmission service for particular Internet content providers or certain types of data. The "technical code", *i.e.*, the end-to-end principle that does not allow network operators to discriminate against their customers, will be challenged by traffic prioritisation. This explains the emergence of the debate on network neutrality. Within this debate, network neutrality proponents express the concern that network operators could stifle innovation and competition at the edge of the network, *i.e.*, in the markets for Internet content, by determining what Internet content can be delivered or be delivered better; by contrast, their opponents believe that traffic prioritisation will create incentives for new market entry and investment for the next generation of networks.¹⁷

B. Network neutrality problems

It is not the ambition of this article to judge which side of the debate is correct, but rather to examine whether the problems raised by those who favour imposing or regulating network neutrality could be solved on the basis of the current (and proposed) EU legal framework. In order to do so, we must first identify the most significant problems articulated by network neutrality proponents. However, due

¹² See J. S. 1991, D. Rubin and D. C. 1991, "End-to-End Arguments in System Design", 1991 ACM Symposium on Computer Systems, vol. 3, No. 4, pp. 271-282.

¹³ See OECD, "Internet Traffic Prioritisation: An Overview", Note by ITIS, 2001 (DSF/ICEP/TISP/2001), available at: <http://www.oecd.org/dataoecd/41/51/38412721.pdf>.

¹⁴ See, *eg.*, IETF, "The Internet Engineering Task Force", "Integrated Services in the Internet Architecture: an Overview", RFC 1911 (1996), available at: <http://tools.ietf.org/html/rfc1911>.

¹⁵ See OECD (2002), *op.cit.* 13.

¹⁶ See J. M. P. 2002, W. H. L. 2002 and V. W. 2002, *op.cit.* note 10.

¹⁷ See, *eg.*, C. S. 2002, and T. W. 2002, "Regulating Innovation: The Role of Copyright Law", *Journal of Intellectual Property Law and Commerce*, Vol. 1, No. 1, pp. 375-392.

to the lack of a consistent definition of network neutrality among scholars (which demonstrates the ambiguous scope of the issues involved, as well as the lack of consensus about network neutrality problems and effective solutions), this is not an easy task. In order to facilitate the subsequent analysis, we will then elaborate on legislative proposals on network neutrality in the US in order to identify the major network neutrality problems.

By late 2005, network neutrality regulations were included in several US Congressional draft bills, as a part of ongoing proposals to reform the US Telecommunications Act of 1996. At the moment of writing this article, there have been seven attempts to legislate network neutrality in the United States. However, each of the first five attempts failed and only the last two bills, the Internet Freedom and Preservation Act²⁸ and the Internet Freedom Preservation Act of 2008,²⁹ are currently still under review by the relevant legislative bodies. In essence, the two US legislative bills in particular focus on the following discriminatory practices by network operators:

- 1) the *blocking* of the ability of particular Internet content providers to use broadband services;
- 2) the *degrading* of the ability of particular Internet content providers to use broadband services;
- 3) the imposition of *unreasonable restrictions with regard to attaching certain devices or as to which applications* that may be used on the networks of network operators; and

- 4) the provision of *prioritisation* only to particular Internet content providers.³⁰

Several incidents that have taken place both in the US and in Europe demonstrate that network neutrality is not, as some of the literature alleges, "a solution in search of a problem".³¹ For example, in the *Madison River* case, a US telephone company blocked the ability of its digital subscriber line (DSL) customers to use VoIP services.³² In the conflict that involved *Comcast Corporation*, the US network operator was sued for preventing bitTorrent users from seeding files.³³ In Europe, some network operators have reportedly blocked VoIP and peer-to-peer systems³⁴. Similarly, the removal by some UK mobile operators of VoIP functionality from *Nokia N95* handsets last year also triggered network neutrality concerns.³⁵ Prioritisation, which implies a higher level of traffic shaping than blockage or degradation,³⁶ has not yet been fully installed by network operators.

²⁸ The Internet Freedom and Preservation Act requires that prioritisation should be provided free of charge, although there is no consensus among network neutrality proponents whether this should actually be the case. However, this issue is beyond the scope of this paper.

²⁹ See A. Sica, "The Problem with Network Neutrality" (2006), available at: http://www.freedomworks.org/informed/ideas_template.php?issue_id=2571.

³⁰ See *Madison River Communications, LLC and Affiliated Companies*, Order, File No. 05-05-H-0110, 20 FCC.R. 4395 (Enforcement Bureau, 2005).

³¹ See R. Scalet, "Comcast Sued Over BitTorrent Blocking - Updated", November 14, 2007, available at: <http://blog.wired.com/27b/stories/2007/11/comcast-sued-ov.html>.

³² See M. Gray, "Towards a two-tier Internet", BBC, 12 December 2005, available at: <http://news.bbc.co.uk/1/hi/technology/4552138.stm>.

³³ See T.iphone, "Removal of VoIP Functionality Threatens Mobile Net Neutrality, Says T.iphone", April 23, 2007, available at: <http://t.iphone.bing.net.com/2007/04/removal-of-voip-functionality-threatens-net.html>.

³⁴ Technically speaking, it is more difficult to prohibit a website from being blocked than to block it. See OECD (2007), www.oecd.org, 15.

The bill text of the Internet Freedom and Preservation Act is available at: <http://www.publicknowledge.org/wordpress/wp-content/uploads/2007/09/IFPA.pdf>.

The bill text of the Internet Freedom and Preservation Act of 2008 is available at: http://www.senate.gov/legislative/2008/ifpa/ifpa_081106.html.

Nevertheless, PlusNet, a UK-based network operator, has already started selling prioritisation services for different types of Internet applications.²⁷ Last but not the least, several network operators have also expressed their intention to discriminate against some Internet content providers.²⁸

II. OVERVIEW OF RELEVANT EU LAW

The network neutrality problems highlighted above indicate that the core of the network neutrality debate centres on discrimination, in particular discrimination by network operators against Internet content providers and individual Internet users. We can identify two fields within the current EU legislative framework that might be apt to deal with this discrimination. On the one hand, there are the sector-specific rules contained in the 2003 Regulatory Framework, while on the other there is relevant industry-wide regulation, in particular EU competition law. The last section of this part will also discuss the legislative proposals recently published in the context of the electronic communications reform, focusing on the proposed amendments relating to network neutrality.

A. Sector-specific regulation: the 2003 Regulatory Framework

The 2003 Regulatory Framework was adopted in 2002 and came into force in 2003. With regard to the restrictions on market behaviour of broadband network operators, there are three mechanisms provided by the 2003 Regulatory Framework that may be of relevance for network neutrality problems.

The first mechanism, which is also the most important, is the so-called significant market power (SMP) regime. According to this regime, in order to regulate network operators, the National Regulatory Authorities (NRAs) of EU Member States must first define relevant markets for the particular electronic communications networks or services. After defining a relevant market, NRAs must conduct a market analysis to find out whether there are one or more undertakings that enjoy(s) SMP on the market so defined. This is equivalent to the notion of "dominance" under Article 82 of the EC Treaty.²⁹ In the case where no undertaking is found to have SMP, the market is left unregulated. If the relevant NRA concludes, however, that there is in fact SMP, it must impose obligations only on those undertaking(s) having SMP. The possible obligations that can be imposed on SMP undertakings include transparency, non-discrimination, accounting separation, imperative access, and price control.³⁰

Under the second mechanism, NRAs can, in predefined circumstances, regulate network

²⁷ See Article 14 of Directive 2002/21/EC of the European Parliament and of the Council of March 7, 2002 on a Common Regulatory Framework for electronic communications networks and services (2002) OJ L 108/33 (Framework Directive).

²⁸ See Articles 9-13 of Directive 2002/19/EC of the European Parliament and of the Council of March 7, 2002 on access to and interconnection of electronic communications networks and services (2002) OJ L 108/17 (Access Directive). It should be noted that within the Commission's proposals for amending the Access Directive, NRAs could also impose a new obligation of functional separation. See Article 11 of Proposal for a Directive of the European Parliament and of the Council amending Directive 2002/21/EC on a Common Regulatory Framework for electronic communications networks and services (2002) EC on access to and interconnection of electronic communication networks and services and 2002/20/EC on the authorisation of electronic communication networks and services (hereinafter "the Better Regulation proposal"), available at: http://ec.europa.eu/information_society/doc/comm_dir_library_proposal027.htm 2167 (02/07). en.pdf

²⁹ See PlusNet's policy on its prioritised broadband at <http://www.plus.net/support/broadband-quality/broadband>.

³⁰ See *Save the Internet: What they've got planned*, available at: <http://www.savetheinternet.com/files/Save-the-Internet.pdf>.

operators *regardless* of the existence of SMP. According to Article 5 of the Access Directive,³¹ NRAs are able to impose (a) to the extent that is necessary to ensure end-to-end connectivity, obligations on undertakings that control access to end-users, including in justified cases the obligation to interconnect their networks where this is not already the case and (b) to the extent that is necessary to ensure accessibility for end-users to digital radio and television broadcasting services specified by the Member State, obligations on operators to provide access to the other facilities on fair, reasonable and non-discriminatory terms (hereinafter "the Article 5 regime"). It should be noted that this provision – in contrast to the SMP regime, which is tightly monitored by the European Commission – grants to NRAs a large amount of flexibility to handle national circumstances, and leaves them a considerable margin of discretion in dealing with issues of access and interconnection.

A third mechanism can be found in the consumer protection rules, which require certain types of electronic communications services to be made available for all end-users at an affordable price (universal service obligations, or "USO") and a certain degree of transparency concerning contracts of provision of electronic communications services.³² For the time being, broadband Internet access (with specified characteristics in terms of quality and price) is not included in the list of EU universal service obligations. Almost all other provisions in the area of consumer protection (such as contractual and transparency obligations) relate to public telephony. Therefore, the

current Universal Service Directive is of little help in resolving problems related to network neutrality.

Besides these directives, another that should be mentioned here – even though it does not form part of the 2003 Regulatory Framework – is the Radio and Telecommunications Terminal Equipment Directive ("the RTTE Directive"). The RTTE Directive, which aims to create an open competitive single market for telecommunications terminal equipment, prohibits unjustified restrictions to the use of electronic communications terminal equipment by network operators.

B. EU competition law

Discriminatory behaviour of network operators that distorts competition with and amongst Internet content providers, may trigger the application of EU antitrust law, which consists of two basic rules.

The most relevant rule for our analysis can be found in Article 82 of the EC Treaty, which prohibits the abuse of a dominant market position. This provision imposes a special responsibility on dominant undertakings to not impair genuine undistorted competition by, for example, predatory pricing, tying, limiting production, or applying dissimilar conditions to equivalent transactions. As far as discrimination is concerned, Article 82 of the EC Treaty, in general, does not permit network operators that are in a dominant position to discriminate, in an anti-competitive manner and without objective justifications, among Internet content providers who are in similar circumstances.

Article 81 of the EC Treaty targets distortions of competition that result from agreements or similar practices (collusion), either between undertakings at the same level of the production chain (horizontally), or between undertakings at different levels of the production chain

³¹ Under Article 5 of the Access Directive, see Directive 2002/22/EC of the European Parliament and of the Council of March 20, 2002 on universal service obligations relating to electronic communications networks and services (2002/22/EC) (2002 OJ L10/12).

(vertically). It prohibits "agreements", "decisions" and "concerted practices" between undertakings, which have as their object or effect the prevention, restriction, or distortion of competition, within the EU's common market. Examples of "hardcore" restrictions prohibited by Article 81 of the EC Treaty include price fixing, limiting output and market allocation.³³

C. Legislative proposals in the context of the electronic communications reform

On 13 November 2007, the Commission put forward its proposals for the review of the electronic communications regulatory package.³⁴ A first proposed directive (commonly called the "Better Regulation proposal") put forward amendments to the Framework, Access and Authorisation Directives. A second one (the "Citizens Rights proposal") contained amendments to the Universal Service and e-Privacy Directives. It is mainly the latter proposal in which the Commission articulated its position on network neutrality. Following the so-called co-decision procedure,³⁵ the Commission's

legislative proposals now have to be approved by the Council of the European Union and the European Parliament. Final adoption of the new directives is not expected before 2009.

Basically, the Commission considers that the existing rules in EU law are sufficient to deal with network neutrality problems, with the exception of problems in relation to degradation of the quality of service to unacceptably low levels.³⁶ In its amendments to the Universal Service Directive,³⁷ the Commission proposes two measures with the aim of safeguarding "basic access and quality of service ('net neutrality and freedoms')".³⁸

- 1) A new Article 20.5 would oblige Member States to ensure that customers are clearly informed in advance of the conclusion of a contract, and regularly thereafter, of any

European Parliament, who then both have to approve the proposals.

See European Commission Staff Working Document, Impact Assessment – Accompanying document to the Commission proposal for a Directive of the European Parliament and the Council amending European Parliament and Council Directives 2002/19/EC, 2002/20/EC and 2002/21/EC, Commission proposal for a Directive of the European Parliament and the Council amending European Parliament and Council Directives 2002/22/EC and 2002/58/EC; Commission proposal for a Regulation of the European Parliament and the Council establishing the European Electronic Communications Markets Authority, SEC(2007)1472 (hereinafter "Impact Assessment"), 2007, pp. 91-92, available at: http://ec.europa.eu/information_society/policy/comm/doc/library/proposals/ia_en.pdf.

See Proposal for a Directive of the European Parliament and of the Council amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks, Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector, and Regulation (EC) No 2006/2004 on consumer protection cooperation (the proposed Universal Service Directive), 2007 (hereinafter "the Citizens Rights proposal"), available at: http://ec.europa.eu/information_society/policy/comm/doc/library/proposal_698/com_2007_0698_en.pdf.

See Explanatory Memorandum to the Citizens Rights proposal, p. 9.

³³ Some scholars believe that Article 81 of the EC Treaty is of little or no relevance in the debate on network neutrality, as problems are only likely to arise with regard to dominant network operators (whose behaviour can be constrained by Article 82). Non-dominant operators, they believe, will not engage in discriminatory behaviour thanks to the competition pressure from larger network operators. Nevertheless, some scholars raise concerns that network operators without market power still refuse to supply prioritisation to some Internet content providers because they have entered into exclusive supply contracts with other content providers. In these cases, Article 81 of the EC Treaty may be used to scrutinise such exclusive agreements. See, e.g., Marsden (2007), *supra* note 11.

³⁴ More details can be found at: http://ec.europa.eu/information_society/policy/comm/tomorrows/reform/index_en.htm.

³⁵ Article 95 of the EC Treaty forms the legal basis for the electronic communications directives (harmonisation measures); this article refers to the co-decision procedure in Article 251 of the EC Treaty, under which the European Commission takes the initiative by submitting proposals to the Council of Ministers and the

limitations imposed by the provider on their ability to access or distribute lawful content, or to run any lawful applications and services of their choice. Hence, this clause provides for a transparency mechanism concerning possible restrictions on end-users' choice of lawful content and applications, in order to empower end-users to make an informed choice of services.

- 2) A new Article 22.3 would grant to the NRAs the power to prevent the degradation of quality of service and the slowing of traffic over networks, by setting minimum quality levels for network transmission services for end-users, and at the same time provide the possibility for the Commission to take implementing measures (intended to ensure, where appropriate, a minimum level of harmonisation in this area at the EU level).

In addition, we see two more proposed provisions that could be of relevance to the network neutrality discussion as well:

- 3) A new al. 2 in Article 21 would oblige Member States to ensure that undertakings providing public electronic communications networks and/or services publish comparable, adequate and up-to-date information on applicable prices and tariffs in respect to access and use of their services, provided to consumers in an easily accessible form.
- 4) The modified Article 28 would prescribe in its al. 1, a) that NRAs should take all necessary steps to ensure that end-users are able to access and use services, including information society services.³⁹

³⁹ The original is a corollary of Article 3.3 of the proposed Framework Directive that end-users should be able to access and distribute any lawful content and to use lawful applications and services of their choice, see amendments to Article 3

In April 2008, the lead committees of the European Parliament published their draft reports on the review. The review of the Citizens Rights proposal is contained in the draft report prepared by Malcolm Harbour (EPP-ED, UK) of the Committee on the Internal Market and Consumer Protection (IMCO) (hereinafter "the Harbour Report").⁴⁰ The Harbour Report has been adopted in IMCO with 38 votes in favour, two against and no abstentions on 7th July 2008. The European Parliament will vote in plenary in September 2008.⁴¹ The Harbour report, in general, supports the Commission's opinion on network neutrality and makes no substantial changes to most of the aforementioned Commission amendments. Modifications suggested in the Harbour Report concern the repositioning of articles or broadening the powers of the NRAs.⁴²

⁴⁰ of the Framework Directive is the Better Regulation proposal, *supra* note 30.

⁴¹ See Committee on the Internal Market and Consumer Protection, Draft report on the proposal for a directive of the European Parliament and of the Council amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks, Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector and Regulation (EC) No 2006/2004 on consumer protection cooperation (Rapporteur: Malcolm Harbour), 2007/0248(COD), PE4041159v-01-02, 14 April, 2008, available at: http://www.europarl.europa.eu/ides/qjDoc.do?pubRef=-//EP//NONISGM/COMPARL/PE/4041159-01-DOC+PDF+VO/1EM/lanquage=EN/Amendment_1.pdf and http://www.europarl.europa.eu/meetdocs/2008_2009/documents/am/7227/722911/722911en.pdf (Amendment 41-200).

⁴² The review of a legislative proposal of the Commission by the Parliament works as follows: first, a lead Committee of the Parliament makes a draft report on the Commission proposal; then, the Parliament holds an internal vote on this draft report in order to define its position on this proposal; and, as a final step, the Parliament discusses its position with the European Council to reach a common position.

Concerning this first amendment, the Harbour Report suggests repositioning it to Article 20, al. 1, b), rather than Article 20, al. 1. See Amendments 14 and 19 in the Harbour Report, *supra* note 40. With regard to the

With regard to the amendment in relation to Article 22, al. 3 (the second point mentioned above), the Harbour Report suggests, first, that minimum quality of service requirements can also apply to "anti-competitive blocking" and ensuring "the ability of users to access or distribute lawful content or to run lawful applications and services of their choice is not unreasonably restricted" (by contrast, minimum quality of service requirements within the Commission's proposal only cover "degradation of service and slowing of traffic over networks"), secondly, that a restriction may be considered to be unreasonable "if it is based on source, destination, content, or type of application, and if it cannot be rendered ineffective by transparency requirements imposed pursuant to Article 21(4)(c) and competition law remedies"⁴³.

With regard to the amendment of Article 28 (the fourth point mentioned above), the Harbour Report considers that there appears to be a contradiction in the (Commission) proposal between, on the one hand, the right of operators to limit access as long as it is disclosed, and, on the other hand, the obligation for NRAs in the proposed Article 28, al. 1, a) to ensure that access is not limited. Hence, the report suggests deleting Article 28, al. 1, a), because, already under Article 22, al. 3 – in the wording of the Harbour Report – NRAs would be able to "take action also in cases where there is competition but access is unreasonably restricted".⁴⁴

⁴³ Indeed, amendments proposed in the amendment to the proposal are able to ensure transparency of prices and tariffs is maintained, but the scope of the obligation is extended and the wording is changed. See Article 29-43. The Harbour Report, *supra* note 41, *infra* note 44. Amended Article 28 of the Harbour Report. Article 28 refers to 14 of the Harbour Report.

III. THE APPLICABILITY OF EU LAW TO NETWORK NEUTRALITY PROBLEMS

This part examines whether the sector-specific rules on the one hand and competition rules on the other can sufficiently deal with the four aforementioned network neutrality problems. We will start by analysing the 2003 Regulatory Framework, and then examine competition rules. Finally, we will take a closer look at the legislative proposals for the electronic communications regulatory framework to see whether they provide solutions for gaps that possibly remain in the existing frameworks.

A. The 2003 Regulatory Framework

1. *Electronic communications services versus internet content*

Before exploring the relevant mechanisms in the 2003 Regulatory Framework (*i.e.*, the SMP regime and the Article 5 regime), as well as the RTTE Directive, it is important to point out the general scope of application of this framework.

The 2003 Regulatory Framework only concerns electronic communications networks and services. In Article 2, c) of the Framework Directive, an electronic communications service is defined as:

"a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; it does not include information society services, as defined in Article 1 of Directive 98/34/EC, which do not consist wholly or mainly in the conveyance of signals on electronic communications networks".

Hence, such services do not include broadcasting services or non-linear audiovisual media services, nor online services that provide content or information services or applications over the Internet. Since these "do not consist wholly or mainly in the conveyance of signals", such information society services are not covered by the definition of electronic communications services.

However, network neutrality potentially concerns all the data flows transmitted over the Internet, including flows generated by content providers.

Furthermore, Article 20 of the Framework Directive grants to NRAs the power to resolve disputes between undertakings, but limits this dispute resolution mechanism to disputes "between undertakings providing electronic communications networks and services". Hence, disputes between network operators and Internet content providers do not fall within the scope of the 2003 Regulatory Framework. Thus, Article 20 again underlines the limitations of the scope of application of the 2003 Regulatory Framework, notably with regard to transmission networks and services.

Consequently, the 2003 Regulatory Framework will not be able to govern all network neutrality problems, and in particular those related to "services providing, or exercising editorial control over, content" and "information society services".

2. The SMP regime

In order to impose any obligation on network operators, regulatory authorities must at first instance define the relevant market(s). Furthermore, in order to define a relevant market, NRAs have to take into the utmost account the European Commission's recommendation on relevant product and service markets within the electronic communications sector susceptible

to *ex ante* regulation ("the Recommendation").⁴⁵ Within the Recommendation, the Commission lists seven relevant markets that should be subject to *ex ante* regulation, unless SMP is not found to exist at a later stage. Consequently, we must first analyse whether the relevant market for network neutrality problems is included in the list of the seven recommended markets.

It should be noted that it is not common practice in the Internet industry that Internet content providers build their own networks to provide services to end-users.⁴⁶ Usually, network operators act as intermediaries, taking care of broadband access and data transmission between Internet content providers and end-users. Consequently, in order for Internet content providers to offer services to end-users, they need to make their own arrangements with network operators regarding services of broadband access and data transmission. Furthermore, if the Internet content providers and the end-users are not within the same broadband network, wholesale broadband transit service between different network operators is also necessary. Moreover, since network operators and Internet content providers operate at different levels of the

⁴⁵ See Commission recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common Regulatory Framework for electronic communications networks and services, 2007/829/EC, 28.12.2007, O.J. L 344/85. This is the second edition of the European Commission recommendation on relevant product and service markets. The first edition dated from 2003 and listed 18 markets as susceptible to *ex ante* regulation (full reference, *infra* note 48).

⁴⁶ Google built a wireless broadband network in San Francisco in 2003. Network neutrality opponents consider this as evidence that declassification of network operators can incentivise Internet content providers, entering markets for Internet infrastructure, thereby promoting consumer welfare. However, Google clearly announced that it had no intention to enter the infrastructure market.

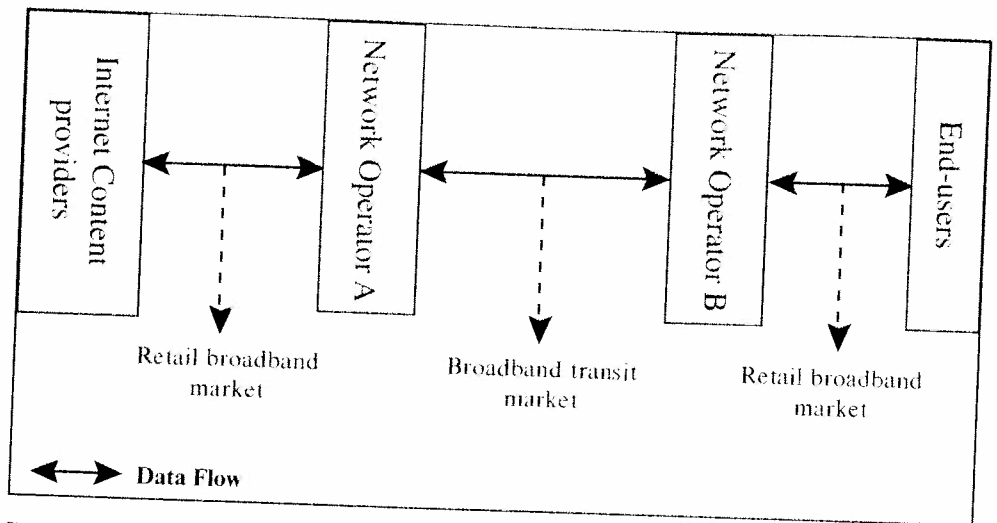


Figure 1: Relevant markets related to network neutrality.

service chain, the markets for deals between network operators and their customers, *i.e.*, Internet content providers and end-users, are in general retail markets. Consequently, there are four groups of parties and two types of markets involved in the entire transaction, as described by the following Figure 1.⁴⁷

The major network neutrality problems concern the discrimination by network operators against Internet content providers and end-users. In other words, only retail broadband markets are relevant for that type of network neutrality problems. However, the retail broadband market is not within the seven recommended markets; even the earlier edition of the Commission's recommendation on relevant markets (where the Commission listed 18 markets⁴⁸) had no mention of it.

One might argue that according to the Commission's Recommendation, the NRAs are still entitled to define relevant markets beyond those listed in the Recommendation under certain conditions.⁴⁹ Nevertheless, it has proven to be very difficult to incorporate retail broadband markets into *ex ante* regulation. This is because, first, the Commission imposes a very high burden of proof on NRAs to define new relevant markets other than those included in the Recommendation, as evidenced by the fact that there are very few additional relevant markets defined by NRAs; secondly, in practice, no NRA has ever defined and analysed retail broadband markets under the Article 7 procedure.⁵⁰

However, even if the NRAs could manage to include retail broadband markets into *ex ante*

⁴⁷ For a case example, please refer to the work of the ECN (see, e.g., ECN (2004) 100, 101, and 102). In particular, see ECN (2004) 100 as relevant product and service markets within the electronic communications sector. This publication is into regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common Regulatory Framework for

Electronic Communications Networks and Services (ENFSI) (2002) 100, 101, and 102. For a case example, please refer to the work of the ECN (see, e.g., ECN (2004) 100, 101, and 102). In particular, see ECN (2004) 100 as relevant product and service markets within the electronic communications sector. This publication is into regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common Regulatory Framework for

regulation and find that a network operator that infringes network neutrality has SMP, it is still unlikely that they can remedy the problem. This is because an NRA has to choose from a "toolbox" of remedies such as obligations relating to transparency, non-discrimination, accounting separation, imperative access and/or price control. All these remedies, however, refer to "interconnection and/or access".⁵¹ Access is defined by the Access Directive as "the making available of facilities and/or services, to another undertaking [...] for the purpose of providing electronic communications services";⁵² while interconnection refers to "the physical and logical linking of public communications networks".⁵³ Apparently, therefore, all these obligations are confined to regulating the relationship between electronic communications networks or services providers, and do not extend to the services provided to customers, which in this case are Internet content providers and end-users. Some NRAs – like the French ARCEP – are of the opinion that they are "basically regulating disputes between operators for 'access' or 'interconnection' issues" and have "no competences to regulate content service providers or disputes between content providers and operators".⁵⁴

3. The Article 5 regime

The application of the Article 5 regime is also constrained by the definition of access and interconnection in the same way as the SMP regime. The only difference between the two regimes is that the existence of SMP is not required in order to impose obligations under

the Article 5 regime. Since access and interconnection are not relevant to retail broadband services provided to Internet content providers and end-users, the Article 5 regime cannot be applied to network neutrality problems either. Nevertheless, some network neutrality proponents argue that launching the new technology of traffic prioritisation will result in segmented standards among different networks and thus problems of interconnection.⁵⁵ It should be noted that this concern can be addressed by the Article 5 regime.

4. The RTTE Directive

Network operators might restrict their customers' ability to attach certain devices, e.g., gaming consoles, Internet phones and Wi-Fi routers, to their networks for many reasons. Network neutrality proponents are concerned with unreasonable restrictions. According to Article 7 of the RTTE Directive, "Member States shall ensure that operators of public telecommunications⁵⁶ networks do not refuse to connect telecommunications terminal equipment to appropriate interfaces on technical grounds"⁵⁷ unless the apparatus "causes serious damage to a network or harmful radio interference or harm to the network or its functioning".⁵⁸ Furthermore, network operators must obtain authorisation from the relevant authorities in their Member State before

⁵¹ See D. J. Watkins, "The Neutral Internet: An Interconnection Architecture for Open Societies" (2006) available at <http://digesal.mit.edu/2006/06/neutralnet.html>.

⁵² At the time when this directive was adopted, the concept of electronic communications did not exist. Nevertheless, since the 2003 Regulatory Framework substitutes the concept of telecommunications to electronic communications, the wording in the RTTE Directive should be read accordingly.

⁵³ See Article 2, al. 1 of Directive 1993/117 of the European Parliament and of the Council of 13 March 1993 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity, [2003] OJ L 31/10, (2003) Article 2, al. 1.

⁵⁴ See Article 3, al. 1 of the Access Directive, *supra* note 30.

⁵⁵ *Idem*, Article 2(a).

⁵⁶ *Idem*, Article 2(b).

⁵⁷ See, e.g., G. Gauthier, "Next Generation: connectivity and net neutrality", presentation at the DATE Transatlantic Telecom Forum, November 14th, 2007, available at: <http://www.comptel.be/line/press/communiquedeurgence-gauthierdate141107.pdf>.

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refusing connection, disconnecting such apparatuses, or withdrawing them from service; and the Member States concerned should notify the Commission of these authorisations.⁵⁹ Thus, the EU provides a legal ground to take care of unreasonable restrictions on attached devices by network operators.

To conclude this section, since the 2003 Regulatory Framework is in principle designed to promote competition between undertakings providing electronic communications networks and services, and since its scope of application is confined to such undertakings, it is currently not apt to deal with network neutrality problems involving Internet content providers.⁶⁰ Nevertheless, the RTTE Directive can govern the unreasonable restrictions of network operators on end-users attaching devices to their networks. Now, however, we will analyse the applicability of the general competition rules to other network neutrality problems.

B. EU competition law

1. Blockage

Blockage refers to the case where network operators refuse to carry data from particular

Internet content providers on their networks. Blockage should not be a concern unless the blocked Internet content providers cannot switch to other network operator. This situation may arise either because of a lack of alternative network operators, or the existence of a preventive switching cost.⁶¹ Where there are no sufficient alternative network operators, or there are preventive switching costs in a relevant market, it also means that network operators that block Internet content providers have dominant positions. Under this situation, network operators may have an incentive to abuse their dominant positions by not carrying data of an unaffiliated Internet content provider in order to favour their affiliated ones. This has already been evidenced by the aforementioned US *Madison River* case where a network operator blocked VoIP services in order to promote its traditional telephone services.

In terms of EU competition law, blockage falls within the category of "refusals to supply or deal". Nevertheless, undertakings, even dominant undertakings, are, in principle, free to choose their business partners and therefore Article 82 of the EC Treaty does not impose a general obligation on dominant undertakings to serve all possible customers. This obligation can only be imposed in exceptional circumstances. The principle has been developed in European case law and is referred to as the "essential facilities doctrine", despite that this term itself has never appeared in any judgment by the European Court of Justice ("the ECJ") and the European Court of First Instance ("the CFI"). Although the definition of an "essential facility" is fraught with difficulty, the central idea is that it is something owned or controlled by a dominant undertaking and which other

⁵⁹ *Ibidem*.

⁶⁰ It should be noted, though, that some commentators disagree, stressing that there is a difference between the addressees of the obligations under the 2003 Regulatory Framework (which should be electronic communications networks or services providers) and the beneficiaries (which could be content providers). There are indeed elements in the Regulatory Framework pointing to this conclusion, like the rules on conditional access systems in Article 6 of the Access Directive (which benefit broadcasters) or the inclusion of market 18 (market for broadcasting transmission) in the first Recommendation on Relevant Markets. Since the application of the framework to the benefit of content providers is at least open for interpretation, we decided to take a prudent position in this paper, defending the viewpoint that the framework cannot be used to deal with discrimination of Internet content providers by network operators in the context of the network neutrality debate.

⁶¹ See V. Stoica and P.W. J. de Burca, "Network Neutrality and the Nature of Competition between Network Operators" (2007) *International Economics and Economic Policy*, Vol. 4, No. 2, pp. 159-184.

undertakings need to access in order to provide products or services to customers.⁶² In the recent *Microsoft* case,⁶³ the CFI had a chance to re-synthesise the conditions of the essential facilities doctrine established in earlier cases.⁶⁴ The CFI considered that a refusal to supply by dominant undertakings constitutes an infringement of Article 82 of the EC Treaty only in the following circumstances:⁶⁵

- 1) "the refusal relates to a product or service indispensable to the exercise of a particular activity on a neighbouring market";
- 2) "the refusal is of such a kind as to exclude any effective competition on that neighbouring market"; and⁶⁶
- 3) the refusal cannot be "objectively justified".⁶⁷

With regard to the application of "indispensability" within the first condition, raw materials that are not substitutable are, without ambiguity, indispensable to undertakings in the

downstream markets.⁶⁸ This is also true for services that undertakings in neighbouring markets depend on highly. Reference to this can be found in the *Télémarketing* case where a television station refused to supply its television advertisement minutes to a telemarketing advertiser whose advertising activity was based on television broadcasting services. In this case, the ECJ stated that an abuse within the meaning of Article 82 of the EC Treaty is committed

"where, without any objective necessity, an undertaking holding a dominant position on a particular market reserves to itself or to an undertaking belonging to the same group an ancillary activity which might be carried out by another undertaking as part of its activities on a neighbouring but separate market, with the possibility of eliminating all competition from such undertaking".⁶⁹

Apparently, therefore, a telemarketing advertiser cannot perform its telemarketing activity without the input of television advertising minutes.

Applying this to our situation of blockage, Internet content services and retail broadband services are also neighbouring but separate markets. Furthermore, like the telemarketing activity, access to broadband is indispensable for Internet content providers to serve their customers, and a blockage by a dominant operator may lead to the excluding of all competition from the blocked Internet content providers. Since the first two conditions are met, the blocking network operator must bear the burden of proof of demonstrating that the refusal can be justified objectively, *i.e.* the third condition. This is, however, a very

⁶² See A. Jones and B. Soren, *EC Competition Law: Text, Cases, and Materials*, (2008), Oxford University Press, New York, p. 517.

⁶³ See, European Court of First Instance, Case T-201/04, *Microsoft v. the Commission*, 17 September 2007.

⁶⁴ See, *e.g.*, European Court of Justice, *Joined Cases C-5 and 7-73, Istituto Chemioterapico Italiano S.p.A. and Commercial Solvents Corporation v. the Commission*, 6 March 1974, [1974] ECR 223; European Court of Justice, Case 31/78, *Télémarketing v. CIT and IRE*, 3 October 1985, [1985] ECR 1261; European Court of Justice, *Joined Cases C-241/91 P and C-242/91 P, RTE and ITP v. the Commission*, 4 April 1995, [1995] ECR I-743; European Court of First Instance, Case T-304/93, *Tetra Loderale v. the Commission*, 11 June 1997, [1997] ECR page II-923; European Court of Justice, Case C-7/97, *British*, 26 November 1998, [1998] ECR I-7791; European Court of Justice, Case C-418/01, *BMS Health v. MDC Health*, 29 April 2004, [2004] ECR I-9339. With regard to refusal to supply of an intellectual property right, an extra condition is required that the refusal should prevent the appearance of a new product for which there is potential consumer demand. See Case *Microsoft*, *supra* note 63, ¶ 314. *Idem*, ¶ 312.

⁶⁸ See Case *Commercial Solvents*, *supra* note 64, ¶ 25.

⁶⁹ See Case *Télémarketing*, *supra* note 64, ¶ 27.

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heavy burden.⁷⁰ For example, in the *Microsoft* case, the CFI did not accept Microsoft's argument that the disclosure of the interoperability information of the Windows work server operating system to its competitors might produce a negative effect on innovation in the industry as a whole.⁷¹ Consequently, the victims of blockage have a real chance to see the blockage lifted on the basis of the essential facilities doctrine.

2. Degradation

Degradation in the context of the network neutrality debate refers to the situation where network operators intentionally delay data flows from particular Internet content providers. Again, degradation can hardly be sustained in effectively competitive markets; as, otherwise, degraded Internet content providers will simply switch to other network operators. Nevertheless, two scenarios can be imagined in which network operators may wish to degrade data transmission services for certain customers:

- 1) Network operators with market power might aim at leveraging their market powers onto Internet content markets, and accordingly, may wish to disfavour unaffiliated Internet content providers by degrading the latter's data transmission capabilities.
- 2) In order to launch the new technology of prioritisation, network operators, instead of building new infrastructure, might reconstruct their current infrastructures without

increasing the capacity of their networks.⁷² In this case, prioritising some customers necessarily implies a general degradation of other non-prioritised customers.

The first scenario – discriminatory degradation – is an easy case for EU competition law. Article 82 of the EC Treaty, in principle, prohibits dominant undertakings "applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage".⁷³ Regarding discriminatory degradation, network operators degrade services of unaffiliated Internet content providers in order to favour affiliated ones, which is similar to the case of blockage. Consequently, as long as degraded Internet content providers can prove that the transactions concerned are "equivalent", although not necessarily "identical",⁷⁴ they can expect similar treatment of data transmission services as affiliated Internet content providers based on Article 82 of the EC Treaty.

The case of the second scenario – general degradation – is more complicated. In this scenario, network operators degrade all the non-prioritised data transmission services in order to provide prioritisation based on their current infrastructure. It should be noted that Article 82 of the EC Treaty only prohibits discrimination taking place in the same relevant markets, so dissimilar treatments among different relevant markets are not subject to this provision. Therefore, in order to demonstrate that they were discriminated against, degraded Internet content providers must

⁷⁰ See, for example, *Case Commercial Solvents Corp. supra* note 64; European Court of Justice, *Case C-7/77, BF v. the Commission* [1978] ECR I 513, [1978] 3 CMLR 174; and European Commission, *Case No IV/30.178, Appier-Brown British Sugar* [1988] O.J.L 284/41, [1990] 4 CMLR 195.

⁷¹ See *Case Microsoft*, *supra* note 61, ¶¶ 680-712.

⁷² See E. W. Fries, "Nuts and Bolts of Network Neutrality" (2006), available at <http://policy.princeton.edu/pubs/neutralty.pdf>.

⁷³ See European Court of Justice, *Case T-81/91, Tetra Pak International s.r.l. v. the Commission*, October 6, 1994, 1994 ECR II 755, ¶ 160.

⁷⁴ See European Court of Justice, *Case T-128/98, Aeroports de Paris v. the Commission*, December 12, 2000, ECR II-3029, ¶ 202.

prove that there is at least one other Internet content provider in the same relevant market that is treated more favourably. However, it is unsure whether in this scenario the non-prioritised services and the prioritised services would be within the same relevant market. Considering the different characteristics of non-prioritised and prioritised services, they are probably not⁷⁵. Thus, if one supposes that they are not within the same relevant market, there is in fact no discrimination against non-prioritised Internet content providers because, in the non-prioritised market, all Internet content providers are degraded.

Considering that general degradation may be the case of limiting output in the market for non-prioritised services, one may further argue that the second scenario is possibly governed by another part of Article 82 of the EC Treaty that, in particular, prohibits limiting production to the prejudice of customers. However, "there is as yet little case law on abuse of a dominant position by restricting output"⁷⁶. It is therefore not legally certain whether degraded non-prioritised customers can reclaim their previous data transmission services based on this provision. Therefore, Article 82 may be not a good means to deal with the problem of general degradation.

3. Unreasonable restrictions on running applications

Network operators might restrict their customers' ability to run specific Internet applications, such as peer-to-peer file sharing networks (as what took place in the US *Comcast* case), for purposes of capacity management. Operators might abuse this right by simply blocking users without any objective justification.⁷⁷ Therefore, network neutrality proponents propose to limit the ability of network operators to set up restrictions on running applications. However, there are no rules within EU competition law that prevent network operators from limiting broadband access to their customers. Accordingly, network operators are not forbidden from initiating restrictions on the services that they provide to customers.

4. Prioritisation

Prioritisation takes place when network operators provide guaranteed data transmission services to customers so that, in case of congestion, prioritised data flow can still be delivered regardless of the congestion. The main issue, at least from a competition perspective, emerges when network operators, after installing prioritisation, only reserve the prioritised services for a limited number of customers.⁷⁸ This may, for instance, occur when network operators agree to exclusive supply contracts regarding prioritisation with favoured Internet content providers. We will now assess the legality of two scenarios under the EU competition law regime: first, whether dominant network operators can legitimately refuse the provision of prioritisation under Article 82 of the EC

⁷⁵ Since delay-sensitive Internet applications have more urgent demands for QoS than delay-insensitive ones, non-prioritised services that do not support QoS may have different groups of customers from prioritised services that guarantee QoS. Therefore, from the view of the demand side, these two services are not in the same relevant service market. In addition, in the *Corbeau* case, the ECJ considered that basic mail service and express mail service were not in the same market. This case may therefore imply that prioritised service and non-prioritised service are not in the same relevant market either. See Case C-240/91 *Corbeau* (1993) ECR I-2511, ¶¶95-104 (CLR 621).

⁷⁶ See L. R. Fray and W. D. Sullivan, *European Competition Law: A Practitioner's Guide*, (2004), Flower Law International, The Hague, the Netherlands, p. 131.

⁷⁷ This section does not cover cases where network operators, in order to discriminate among Internet content providers, prevent end-users from attaching to their networks certain devices or certain applications operated by those Internet content providers; these cases are discussed in section 4.1.1 of this article. See V. Kretzschmar and P. M. J. van Buren, (2007) *op. cit.* 61.

Treaty; and secondly, whether exclusive supply contracts between network operators without market power and Internet content providers are compatible with Article 81 of the EC Treaty.

a. Refusal to supply access by dominant undertakings

It should be underlined once again that the EU courts have never taken the position that all dominant undertakings have an absolute duty to supply their products or services to all those who request them. Rather, only in exceptional circumstances is there an obligation on dominant undertakings to do so, namely under the "essential facilities doctrine". The problem of prioritisation is also a case of a refusal to supply, in the sense that network operators deny to some of their customers access to prioritised services. Nevertheless, it is different from the problem of blockage analysed in the previous section. Blockage concerns the ability to access the Internet as such, without which it is impossible to provide services through the Internet. In the case of denying prioritisation, however, what is at stake is the ability to have access to prioritised services. Without such prioritised services, Internet content providers can still provide services; however, they may be considerably disadvantaged when doing so. With these considerations in mind, we will now analyse whether the essential facilities doctrine can be applied to prioritisation cases.

The first condition of the "essential facility doctrine" calls for an indispensability test. In the *Tiercé Ladbroke* case, the CFI stated that the refusal to supply could fall within the prohibition laid down in Article 82 of the EC Treaty where it "concerned a product or service which was [...] essential for the exercise of the activity in question, in that there was no real or potential substitute".⁸⁹ The EU courts take a very

restrictive approach when evaluating whether the products or services in question are indispensable to the exercise of activities in neighbouring markets. For instance, in the *Bronner* case, one of the reasons why the ECJ rejected the applicant's request for access to the newspaper home-delivery scheme of the dominant undertaking at issue was that

"other methods of distributing daily newspapers, such as by post and through sale in shops and at kiosks, even though they may be less advantageous for the distribution of certain newspapers, exist and are used by the publisher of those daily newspapers".⁹⁰

Furthermore, in the *Microsoft* case, the CFI finding that Microsoft's disclosure of its interoperability information is indispensable is partially based on an observation that

"Microsoft itself has recognised, both in its written pleading and in answer to a question put to it at the hearing, that none of its recommended methods or solutions made it possible to achieve the high degree of interoperability which the Commission correctly required in the present case".⁹¹

Coming back to our case of denial of access to prioritisation, the same argument as in the *Bronner* case may also apply here, in the sense that there is indeed a substitute – non-prioritised data transmission services – available for unaffiliated Internet content providers, even though it may be utilised at some disadvantage. Consequently, the essential facilities doctrine does not apply to the case of denial of access to prioritisation by reason that its first condition is not met.⁹² In sum, therefore,

⁸⁹ See Case *Bridgestone*, *supra* note 64, § 41.

⁹⁰ See Case *Microsoft*, *supra* note 63, § 435.

⁹¹ However, the *Microsoft* judgement may have opened a backdoor for the refusal of supply prioritisation, from a certain point of view. The CFI decision that Microsoft should disclose its interoperability infor-

⁸⁹ European Court of First Instance, Case T-501/93, *Tiercé Ladbroke v. Commission* [1997] ECR page II-923, § 131.

according to the EU competition law regime, dominant network operators may legitimately grant access to prioritised data transmission services to their favoured Internet content providers.

b. Exclusive supply agreements

Another issue related to prioritisation is whether exclusive supply contracts concerning prioritised services between network operators without market power and Internet content providers are compatible with Article 81 of the EC Treaty.

In considering this issue, we will start by analysing whether such an exclusive supply of prioritisation could be exempted under Article 81(3) of the EC Treaty. Since network operators and Internet content providers are at different levels of the service chain that

provides Internet services for end-users, the agreements concluded between them are vertical, rather than horizontal. Commission Regulation No. 2790/1999⁶¹ (hereafter "the Regulation") provides a "block exemption" for vertical agreements, as defined in Article 2(1) thereof. According to Article 1(c) of the Regulation, an exclusive supply obligation means "any direct or indirect obligation causing the supplier to sell the goods or services specified in the agreement only to one buyer inside the Community for the purpose of a specific use or for resale", which covers the exclusive supply contracts of prioritisation. Exclusive supply agreements can be exempted on the condition that the market share held by the buyer does not exceed 30% of the relevant market in which it purchases the prioritised service.⁶² Applied to this case, a block exemption for prioritisation can therefore be obtained, provided that Internet content providers that purchase the prioritisation do not hold market shares of more than 30% in the relevant markets for Internet content provided to customers, and provided that the agreement concerned does not contain any "hardcore restriction".⁶³

Exclusive supply agreements that do fall under the scope of the block exemption mechanism must be examined under Article 81(1) of the EC Treaty. In principle, EU competition law takes a milder attitude towards vertical restrictions. In the *Delimitis* case,⁶⁴ the ECJ stated that, in determining the effect of exclusive supply agreements, it is first necessary to define the

mation to its competitors was based not only on the fact that there are no reliable substitutes, but also on Microsoft's rapidly increasing market share and its competitors' steeply decreasing market shares. The CFI considered that such an evolution of market shares evidences a dilution of effective competition, and thus the indispensability of disclosing Microsoft's interoperability information, despite that there is a competitive fringe of firms, in particular vendors of the Linux-based *weak group* server operating system, that are viable in niches of the market. Compared with the earlier requirement of the elimination of all competition, the CFI thus lowered the threshold of the essential facilities doctrine to some extent. Therefore, Internet content providers that are refused access prioritisation may obtain prioritisation based on the new interpretation of the essential facilities doctrine by claiming that their market shares decrease rapidly after other Internet content providers start being prioritised. However, the possibility of drawing such conclusions from the *Microsoft* case is contested, and some scholars even think that it will prove to be an isolated judgment. Therefore, it is uncertain whether affected Internet content providers can claim access to prioritisation according to the "new" development in EU competition law. See C. Avner and D. S. Evans, "The Microsoft Judgment and its Implications for Competition Policy towards Dominant Firms in Europe" (2008) <http://iam.com.br/article1115862>.

⁶¹ See Commission Regulation (EC) No. 2790/1999 of 22 December 1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices, O.J. L 336/21.

⁶² *Ibidem*, Article 3(2). Provided the conditions mentioned in Article 1 are fulfilled as well (contains the block-listed provisions).

⁶³ See European Court of Justice, Case C-234/93, *Delimitis v. Henninger AG* (1994), ECR 1994, 1992, 5 (at 23-24).

relevant market, and then ascertain whether there is a concrete possibility for new competitors to enter that market. If analysis shows that there is no denial of access to the market, the agreement concerned cannot be found to restrict competition. Taking into account the premise of this scenario that network operators do not have market power, the exclusive supply agreements can hardly be said to foreclose market entry, because there is inter-brand competition among different network operators. Furthermore, exclusive supply agreements may give small network operators incentives to roll out new infrastructure,⁸⁷ which is an important policy objective of the electronic communications regulation. Consequently, these exclusive supply agreements are very likely to be compatible with Article 81 of the EC Treaty.

Thus, Article 81 of the EC Treaty generally does not prohibit network operators from concluding agreements of exclusive supply of prioritised data transmission services with particular Internet content providers.

5. Interim conclusions on the applicability of competition rules

EU competition law is able to deal with two network neutrality problems, namely the situations 1) where network operators block particular Internet content providers from accessing the Internet as a whole, and 2) where network operators intentionally degrade unaffiliated Internet content providers. Nevertheless, EU competition law may not be adequate to deal with the following situations: 1) network operators degrading all the non-prioritised services in order to launch prioritised services;

2) network operators setting up unreasonable restrictions on end-users running some applications; and 3) network operators refusing unaffiliated Internet content providers access to prioritised services.

C. The legislative proposals in the context of the electronic communications review

This section examines whether the legislative proposals to amend the 2003 Regulatory Framework could remedy these three residual problems that cannot be dealt with under the current sector-specific rules and EU competition law. But first, we will assess the applicability of the Article 5 regime to network neutrality problems in the light of the proposed amendments that have an impact on the general scope of application of the framework.

1. The scope of the Article 5 regime

As mentioned earlier, the three discussed mechanisms under the sector-specific rules, *i.e.*, the SMP regime, the Article 5 regime and the consumer protection regime, are not apt at solving network neutrality problems (with the exception of unreasonable restrictions on attached devices that, in our view, can be governed by the RTTE Directive). Nevertheless, within the review of the 2003 Regulatory Framework, some amendments proposed by the Commission may shed some new light on the application of the Article 5 regime to network neutrality problems in general.

There are two major proposals that may have an impact on the Article 5 regime. The first is Article 20 of the proposed Framework Directive. Under the current Article 20 of the Framework Directive, NRAs, as discussed above, can only deal with disputes between undertakings providing electronic communications networks and services. Nevertheless, the

⁸⁷ See, e.g., G. S. Eric, I. M. Kasper and L. J. Shaw, "Network Neutrality and Industry Structure: Phoenix Center Policy Paper Number 24, 2005, available at <http://www.phoenixcenter.com/pubs/PCPF24Final.pdf>.

proposed Article 20 extends the competence of NRAs to cover disputes between service providers "where one of the parties is an undertaking providing electronic communications networks or services";⁸⁸ thereby making it possible from a procedural point of view for NRAs to look at network neutrality problems that arise between Internet content providers and network operators.

The second proposal relates to Article 2 of the proposed Access Directive, and suggests extending the definition of access to the making available of facilities and/or services to another undertaking for the purpose of "delivering information society services or broadcast content services".⁸⁹ This amendment broadens the concept of access to the benefit of information services provided over broadband networks, and potentially allows NRAs, from a substantive point of view, to deal with network neutrality problems in light of the Article 5 regime. Given the broad power of NRAs under the Article 5 regime, some people believe that such a reform would allow NRAs to regulate network neutrality.⁹⁰

In April 2008, the Committee on Industry, Research and Energy (ITRE) of the European Parliament published its draft report on the review of the Framework Directive, the Access Directive and the Authorisation Directive ("the Trautmann Report").⁹¹ In this draft

report, Ms. Trautmann supports the extension of the dispute resolution mechanism to disputes where one of the parties is an undertaking providing electronic communications networks or services. Nevertheless, she does not support the extension of the definition of access to cover information society services and broadcast content services. This is because her concern is to "prevent the regulation from covering content issues, which would open a much bigger field of litigation (already covered in AVMS and eCommerce directives)".⁹²

Following the Trautmann Report, the application of the Article 5 regime will remain limited to the issues of access and interconnection between undertakings providing electronic communications networks and services. The final outcome of the discussions between the European Parliament and the Council of the European Union is still unclear, but based on the result of the discussions so far, it seems that the proposed Article 5 regime will remain ill-suited to deal with neutrality problems.

2. General / systematic degradation

In its Impact Assessment to the proposals to amend the 2003 Regulatory Framework, the European Commission notes that the current regulatory framework does not provide the tools to solve the problem of general degradation (*i.e.*, when network operators systematically degrade all non-prioritised data transmission services, in order to promote and/or enlarge the scope of their prioritised data transmission services):

"the problem also remains that the current Regulatory Framework does not provide NRAs

networks and services (Trautmann, Catherine Trautmann, 2007-03-07 COD: PE304342-00-00, 21 April 2008, available at: http://www.industry.ec.europa.eu/files/indDir.do?type=COMPARATIVE&dir/imp/ig/Ch%C3%A2timent%202007_04_21%20EN.pdf, Annex point 50, p. 45.

⁸⁸ See Article 20 of the proposed Framework Directive, supra note 30.

⁸⁹ See Article 2 of the proposed Access Directive supra note 30.

⁹⁰ See eg. Gylden (2007), supra note 34.

⁹¹ See Committee on Industry, Research and Energy, Draft Report on the proposal for a directive of the European Parliament and of the Council amending Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services, Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and services and Directive 2002/20/EC on the authorisation of electronic communications

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with the means to intervene were the quality of service for transmission in an IP-based communications environment to be degraded to unacceptably low levels, thereby frustrating the delivery of services from third parties".³³

In order to tackle this problem, the Commission proposes to amend Article 22 of the Universal Service Directive to grant NRAs the power to impose upon undertakings providing public communications networks minimum quality of service requirements (with – according to the Commission's proposal – the power for the Commission to adopt technical implementing measures). Similar arguments also appear in the Harbour report. Were this provision adopted in the end, NRAs would thus have a tool to prevent network operators from systematically degrading non-prioritised data transmission services to unacceptably low levels.

3. *Unreasonable restrictions on running applications*

Another remaining problem that in our view cannot be tackled under the existing legal framework is the situation where network operators would set up unreasonable restrictions on running some applications on their networks, to the detriment of their customers. This problem has been observed by the European legislative bodies. Solutions are envisaged within the Commission proposals for amending Article 28, al. 1 of the Universal Service Directive (end-users should be able to use any lawful applications and/or services of their choice), and for amending Article 20, al. 5 of the Universal Service Directive (requiring network operators to inform their customers of limitations to access or distribute lawful content, or run any lawful applications and services of their choice). Although active action on unreasonable restrictions on running

applications was not proposed by the Commission, increasing transparency is considered to be a good safeguard to ensure that network operators do not distort competition, and to ensure that broadband markets remain or become competitive.³⁴ The IMCO of the European Parliament, however, wishes to take a step further and proposed in its opinion in the Harbour Report that the minimum quality of service requirements could be imposed when "the ability of the users to ... run lawful applications and services of their choice" is "unreasonably restricted".³⁵

4. *Prioritisation*

Denial of access to prioritisation services is difficult, if not impossible, to catch under existing EU law (both sector regulation and competition law). The legislative proposals of the European legislative bodies do not change this situation.

This is because, first, there still has not been a proposal to include broadband internet access in the universal service package;³⁶ the European Commission's proposal of November 2007 was limited to clarifying that a connection at a fixed location (which in itself should be guaranteed as part of the universal service obligations)

"shall be capable of supporting voice facsimile and data communications, at data rates that

³³ See DECD (2007), *supra* note 13.

³⁴ See Amendment 196 of the Harbour Report, *supra* note 40.

³⁵ Communication to the Council, COM (2007) 694, paragraph 2.2005. A further step in the area of internet broadband should be to include in the universal service package. See, for example, the European Parliament's "Broadband Gap" presentation at <http://ec.europa.eu/transport/transport-gap/>. Besides of providing for rural areas and less developed regions, Article 14 in DECD (2007) would also be <http://www.ecpa.eu/transport> business using their own means, including, *inter alia*, 300.

are sufficient to permit functional Internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility.⁹⁷

However, even if broadband internet access were to become part of the USO, it is still unlikely that prioritised data transmission services would be considered as having a functionality linked to it (as it is unlikely to be considered a prevailing technology used by the majority of subscribers in the short term).

Second, in the light of the content/network divide underpinning the regulatory framework for electronic communications, NRAs cannot impose, at the request of Internet content providers or end-users, access obligations in relation to prioritisation services either based on the SMP regime or on the Article 5 regime. Hence, the problems concerning prioritisation largely remain.

Thus, the 2003 Regulatory Framework does not apply to network neutrality problems since it does not take into account the direct interests of Internet content providers (besides their indirect interest in a competitive broadband market). Outside the 2003 Regulatory Framework, EU competition law and the RTTE Directive can tackle some network neutrality problems, but this still leaves others unsolved. In addition, although the legislative proposals will, in our view, solve some of the residual problems, they do not help with the matter of prioritisation. The following part will therefore discuss whether and how to regulate prioritisation in the EU.

IV. HOW TO DEAL WITH PRIORITISATION

A. The Commission's position

Prioritisation is a double-edged sword in the sense that it can be used to improve QoS on a network, while it can also be potentially employed in an anti-competitive manner to block or disadvantage competing services. Despite this, the European Commission reads prioritisation more under the economic term of product differentiation and concludes that it "is generally considered to be beneficial for the market (particularly in industries with large fixed and sunk costs) so long as users have choice to access the transmission capacities and the services they want".⁹⁸ Moreover, it also thinks that "[a]llowing broadband operators to differentiate their products may make market entry of Internet content providers more likely, thereby leading to a less concentrated industry structure and more consumer choice".⁹⁹

Can EU law be used to ensure that users have the choice to access the transmission capacities and service they want? The Commission's logic for its positive answer to this question is bifurcated.¹⁰⁰ First, the Commission considers that the current EU law can prevent network operators who are in a dominant position from discriminating in an anti-competitive manner against their customers in similar circumstances. Secondly, as long as genuine competition exists in the relevant market, if a network operator denies an Internet content provider access to prioritisation, the affected consumer can in principle switch to alternative network operators. Furthermore, even if a certain relevant market for broadband is not competitive, alternative network operators can still enter that market pursuant to *ex ante* access obligations imposed on the dominant

operator. These new entrants can then provide broadband services to the affected Internet content providers. Subsequently, the Commission concludes that "[t]he competitive market together with the current provisions on access and interconnection, should therefore be sufficient to protect 'net freedoms' and to offer a suitably open environment for both European consumers and service providers".¹³¹

B. Comments on the Commission's position

Although it is hard to assess the welfare effects of prioritisation,¹³² we tend to agree with the Commission's conclusion on the technical benefits of prioritisation. According to a report from the NGNI (Next Generation Network Initiative, a project sponsored by the Commission), prioritisation is considered as the best way to meet the demands of QoS.¹³³ The current method of Internet data transmission, which is based on the "end-to-end" principle, however, does not support QoS. Nevertheless, delay-sensitive Internet content that is at risk of being disturbed by non-guaranteed data transmission services, such as VoIP, streaming video and so on, do call for it because of the need for guaranteed data transmission. Besides prioritisation, however, there is an alternative way to achieve QoS: network operators can always over-provide capacity on their networks so that all Internet content can be transmitted without experiencing delay. An obvious advantage of this approach is that it does not affect the "end-to-end" principle. At a first glance this idea looks attractive by the reason of the decreasing

costs for physical facilities of broadband infrastructure, especially at the backbone level. However, there are still two difficulties with this strategy. First, congestion of data transmission may not always arise from limited capacity: it may also come from chokepoints somewhere in a network, which are very unpredictable and not necessarily related to capacity.¹³⁴ Secondly, capacity at the "local loop", or the "last mile", is generally limited and increasing capacity at the local level is much more expensive than at the backbone level. Consequently, a more feasible solution (at least in the short term) to QoS is prioritisation.

However, we cannot completely assent to the Commission's legal analysis of the problems concerning prioritisation. First, according to our analysis, EU competition law cannot in all circumstances prevent network operators from offering prioritised data transmission services exclusively to their favoured Internet content providers. Neither can the 2003 Regulatory Framework offer a direct solution basis for Internet content providers to demand access.¹³⁵ Therefore, we do not agree with the Commission's conclusion that the current EU rules can prevent network operators from discriminating with regard to prioritisation.

Second, although genuine competition can make markets self-functioning, two problems remain with the Commission's analysis. On the one hand, the Commission believes that genuine competition should be sufficient to

deal with any market failure with regard to prioritisation. However, even in a competitive market, network operators, in order to maximize benefits, may be inclined to exclusively reserve their prioritisation services for favoured Internet content providers. In this case, Internet content providers, which are denied access to prioritisation services, have no legal instruments at hand to bring these network operators before European or national authorities and force them to deliver prioritised services on a non-discriminatory basis.

On the other hand, the Commission says that, in non-competitive markets, Internet content providers, whose requests to access prioritisation are denied by certain network operators, can ask alternative network operators to provide prioritisation based on access obligations. Nevertheless, the problem remaining is how soon alternative network operators can actually act, thereby meeting the demand of affected Internet content providers. In the case of high switching costs for the affected Internet content providers, or high entry barriers for potential alternative network operators at stake,¹³ affected Internet content providers still have to bear the risk of not having access to prioritisation services, at least for some time. Therefore, this "indirect" solution is not satisfactory in the short run.

C. Ideas on prioritisation regulation

Within the intense debate on network neutrality, the proponents and opponents of prioritisation or access-tiering provide arguments of almost equal weight. Thus, it is rather

difficult to quickly take a position in favour of or against imposing network neutrality principles. Furthermore, prioritisation, being a promising, emerging technology for supporting QoS, has not yet been fully exploited by industries (as discussed above, only one network operator, PlusNet, has launched prioritisation in Europe); besides, our remarks on the Commission's analysis are only based on hypothetical circumstances (there are so far no cases arising from prioritisation in reality). Hence, the question remains whether, in the end, prioritisation is harmful or beneficial to society: taking a prudent approach to prioritisation regulation is thus suggested.¹⁴

Nevertheless, we also consider that taking a completely "wait-and-see" approach may be too risky, since prioritisation may possibly affect competition among Internet content providers and because there is, for the time being, no legal instrument at the disposal of the European authorities to deal with this. Consequently, we think it is better to impose only "minimum" regulation on prioritisation while allowing it to develop according to the "rules" of the market.

With regard to this minimum regulation, our concerns are twofold. First, in practice, it is difficult for an average end-user, and sometimes even for technical experts, to discover whether faster / slower data transmission comes from spare / scarce capacity of the networks, or if it is the result of prioritisation. Hence, transparency concerning technical information of the prioritised data transmission services provided by network operators is important to detect anti-competitive behaviour. Secondly, the price of prioritisation is also a sensitive issue. It would be detrimental for society as a whole if allowing network operators to price customers

differently for access. It may possibly lead to a new form of digital divide (in this case referring to the information gap between people with prioritisation and those without it).¹⁰⁸ As it is too soon to predict whether such a scenario could materialise, it would be disproportionate to impose price regulation on network operators at this stage, or even prohibit prioritisation at all. Requiring network operators to publish their tariffs in relation to prioritisation may, however, be a first legitimate step.

Finally, our approach is similar to the "light-touch" regulatory regime proposed by Marsden.¹⁰⁹ In order to achieve such a system of minimum regulation, we propose that an obligation for transparency be placed on network operators providing prioritisation. When necessary, the Commission or NRAs can then require those network operators to make public specified information in relation to their prioritised services, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices. This transparency obligation can be implemented in two forms: first, requiring network operators to publish information concerning their prioritised services, as PlusNet does;¹¹⁰ and second, requiring network operators to notify the relevant authorities of the terms and clauses of their agreements when confidential issues are involved.

This could be done by amending the obligations of transparency under Article 21 of the proposed Universal Service Directive, *i.e.* "transparency and publication of information",

Although "digital divide" is defined in many ways, it usually refers to "the troubling gap between those who use computers and the internet and those who do not". See Wikipedia, "Digital Divide" (2004), available at http://en.wikipedia.org/wiki/Digital_divide; see Marsden (2007), *supra* note 11, for a list of how PlusNet manages traffic on its network see http://www.plusnet.support/broadband/quality/broadband/traffic_prioritisation.html.

which requires network operators to publish information about the description, scope and tariffs of the electronic communications services they offer, *etc.* This would allow the public, or in some circumstances only regulatory authorities, to keep their eyes on the development of prioritisation, and to collect more pertinent information in order to acquire an in-depth view on prioritisation later on. Nevertheless, our proposal does not only limit to the transparency obligation. This transparency obligation can only reveal prioritisation problems, if any, but cannot solve those problems. Moreover, these problems can neither be solved under the existing rules or other rules being proposed until now. Therefore, a special rule should be added to allow relevant authorities, either the Commission or NRAs or both, to take actions when the problems in relation to prioritisation cause serious damages to the Internet content industry after more and more network operators start offering prioritisation in the future.

CONCLUSIONS

The new technology of prioritisation, though not yet completely exploited by network operators, has the potential to challenge the long-standing technical principle of the Internet, *i.e.* the end-to-end principle, which is considered to be the accelerator of the robust growth of the Internet at its edge for decades. While having technical advantages to support QoS, this new technology also possibly allows network operators to discriminate against Internet content providers. In order to prevent the possible abuse of this new technology to the detriment of consumers, scholars have initiated the public debate on maintaining "the Internet" neutral.

In this article we have examined the applicability of the current EU communications

regulatory framework and competition rules to the most common forms of potentially anti-competitive behaviours in relation to network neutrality. We have also looked at the legislative proposals for amending the 2003 Regulatory Framework.

From our analysis, we can conclude the following:

- 1) It is difficult, if not impossible, to tackle the studied problems under the 2003 Regulatory Framework, first because that the retail broadband market is not listed as a market susceptible to *ex ante* regulation and secondly, because the electronic communications regulation in principle only deals with transmission issues, and not with the relation between network operators and content providers. Nevertheless, the unjustified restrictions on attached devices may be governed by the RTTE Directive.
- 2) EU competition rules are only able to be used to solve some network neutrality problems, such as blockage, and, discriminatory degradation. The problem arising from general degradation cannot be solved by competition law; however it can be dealt with under the clause of minimum quality of service requirements proposed by the European legislative bodies.
- 3) The remaining problems arising from prioritisation will not be fully resolved even under the modified regulatory framework for electronic communications, when taking into account the limited scope of the legislative proposals in the area of network neutrality. Network operators will therefore be able to offer prioritised services to their favoured Internet content providers and to deny the requests of access by others, without breaching any European rule.

We have therefore suggested explicitly extending the obligation of transparency in

Article 21 of Universal Service Obligation to include prioritisation services. Considering that prioritisation is only an emerging technology and that no severe problems have arisen from it so far, such "minimum regulation" is appropriate for the time being (following the adage "if there is going to be error, it is better to err on the liberal side rather than the side of oversuppression"¹¹). However, we suggest that both the European Commission and NRAs follow the evolution of traffic prioritisation closely and resume the discussion on prioritisation when the technology/service has been taken up more widely.

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