



# NETWORK NEUTRALITY:

## *Legal Answers From An EU Perspective*

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### 1. 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 or degrading quality of transmission, imposing unreasonable restrictions or prioritising affiliated content. Fiercely debated in the United States (US), the idea of network neutrality is now rapidly spreading to 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 net neutrality shifts the attention of the electronic communications industry from dealing with former network monopolies to the possible tension between network operators<sup>1</sup> and Internet content providers<sup>2</sup>. One of the key questions in the debate is whether network operators are really motivated to introduce price differentiation for internet access by online service providers (in other words, to pay “a toll” to use higher speed networks or better quality services) and if

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<sup>1</sup> Network operators refer to operators that provide Internet access and data transmission services to their customers including Internet end-users and Internet content providers.

<sup>2</sup> Internet content providers refer to all operators providing content, applications, services and so on based on the platform of the Internet.

they have the power to do so even in the absence of dominance. If the answer 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 take action to stop this from happening. And finally, are existing rules already providing the competent authorities with the necessary tools to take such action or should the regulatory framework be adapted accordingly?

While the first questions are more economic in nature, the answer to the last one requires a legal analysis. This paper aims to conduct such analysis<sup>3</sup> by examining the major network neutrality problems in the light of EU law. An introductory part 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 to network neutrality problems will be given. These provisions entail both sector specific rules – the so-called regulatory framework for electronic communications networks and services<sup>4</sup> (the 2003 Regulatory Framework) which is currently under review – and competition rules. Attention will also be paid to the European Commission’s legislative proposals in the context of the ongoing electronic communications review<sup>5</sup> 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 frameworks can sufficiently tackle network neutrality problems. After discovering that some problems in relation to network neutrality are beyond the reach of the European legal frameworks, the fifth part analyses whether and how we should manage those problems in the EU. The final part will present some conclusions.

## 2. What is Network Neutrality?

Although network neutrality has been described in many ways that emphasize different goals,<sup>6</sup> at the heart of the debate lies the question whether or not the Internet should be open, neutral and accessible to all at equal conditions.<sup>7</sup> More specifically, 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 legitimate data flow.<sup>8,9</sup> Especially networks owners with vertical integration into content or alliances are considered to have enhanced incentives to

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<sup>3</sup> Building on earlier legal papers in this field, such as: F. Chirico, I. v. d. Haar and P. Larouche, "Network Neutrality in the EU" (2007) TILEC Discussion Paper No. 2007-030, available at: <http://ssrn.com/abstract=1018326>.

<sup>4</sup> See all the legal instruments within the 2003 Regulatory Framework at: [http://ec.europa.eu/information\\_society/policy/ecomms/current/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecomms/current/index_en.htm).

<sup>5</sup> More information on the reform of the electronic communications regulatory package can be found at: [http://ec.europa.eu/information\\_society/policy/ecomms/tomorrow/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecomms/tomorrow/index_en.htm).

<sup>6</sup> For different definitions on network neutrality, see for example J. M. Peha, "The Benefits and Risks of Mandating Network Neutrality, and the Quest for a Balanced Policy", (2007) *International Economics and Economic Policy*, Vol 1, pp 644-668; J. G. Sidak, "What Is the Network Neutrality Debate Really About?" (2007) *International Economics and Economic Policy*, Vol 1, pp 377-388; R.W. Hahn and S. Wallsten, "The Economics of Net Neutrality", *Economists' Voice*, June 2006, available at <http://www.aei-brookings.org/publications/abstract.php?pid=1067>.

<sup>7</sup> 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>.

<sup>8</sup> Illegal data flow, violating for example human rights, copyrights, etc, is not involved in the network neutrality concern.

<sup>9</sup> See, J. M. Peha, W. H. Lehr and S. Wilkie, "The State of the Debate on Network Neutrality" (2007) *International Journal of Communication*, Vol 1, pp 709-716.

require content owners (who may also be consumers) to pay “a toll” to use the higher speed networks that they offer to end-users.<sup>10</sup>

## 2.1 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 at the beginning of the Internet. 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 the Internet users offer traffic load in excess of the routing and transmission capacities of the network, each data flow must be passed on a first-come-first-serve basis.<sup>11</sup> While the Internet’s current design performs quite satisfactory 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 *etc.*<sup>12</sup>

Since the beginning of the 1990s, engineers have started to develop new technologies relating to “traffic prioritisation” (or “traffic shaping”, “access-tiering”), in order to allow the Internet to support the required QoS.<sup>13</sup> 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. Then it allows network operators extensive flexibility in determining the way how packets and traffic send or receive on a give network. In case of congestion, network operators can transfer data with higher priority better and faster than data with lower priority.<sup>14</sup> This new technology would thus guarantees the appropriate QoS.

However, while this new technology supports QoS, it also triggers concerns of discrimination, the common component of network neutrality problems.<sup>15</sup> 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. Hence the debate on network neutrality emerged. Within this debate,

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<sup>10</sup> Cf. C. T. Marsden, “Net Neutrality and Consumer Access to Content”, (2007) *Scripted*, Vol 4, No. 4, pp 407-435 (410).

<sup>11</sup> See, J. Saltzer, D. Reed, and D. Clark, "End-to-End Arguments in System Design." 1984 *ACM Transactions on Computer Systems*, Vol. 2, No. 4, pp 277-288.

<sup>12</sup> See, OECD, “Internet Traffic Prioritisation: An Overview”, Note by TIPS, 2007 (DSTI/ICCP/TISP(2006)), available at: <http://www.oecd.org/dataoecd/43/63/38405781.pdf>

<sup>13</sup> See, e.g. IETF (the Internet Engineering Task Force), "Integrated Services in the Internet Architecture: an Overview", RFC 1633 (1994), available at: <http://tools.ietf.org/html/rfc1633>.

<sup>14</sup> See, OECD (2007), *supra* note 9.

<sup>15</sup> See, J. M. Peha, W. H. Lehr and S. Wilkie (2007), *supra* note 7.

network neutrality proponents express the concern that network operators could stifle innovation and competition at the edge of the network, *i.e.* markets for Internet contents, by determining which Internet content can be delivered or be delivered better; by contrast, the opponents consider that traffic prioritisation will create incentives for new market entry and investment for the next generation of networks.<sup>16</sup>

## 2.2 Network neutrality problems

It is not the ambition of this paper 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) European legal framework. In order to do so, we must first identify the most significant problems articulated by network neutrality proponents. However, due to the lack of a consistent definition of network neutrality among scholars (which demonstrates both 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 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 this writing, 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, *i.e.* the “Internet Freedom and Preservation Act”<sup>17</sup> and the “Internet Freedom Preservation Act of 2008”<sup>18</sup>, 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) network operators *blocking* the ability of particular Internet content providers to use broadband services;
- (2) network operators *degrading* the ability of particular Internet content providers to use broadband services;
- (3) network operators imposing *unreasonable restrictions with regard to attaching certain devices or as to which applications* may be used on their networks; and
- (4) network operators providing *prioritisation* only to particular Internet content providers.<sup>19</sup>

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<sup>16</sup> See, e.g. C. S. Yoo and T. Wu, "Keeping the Internet neutral?: Tim Wu and Christopher Yoo Debate", (2007) *Federal Communications Law Journal* Vol 59, No. 3, pp 575-592.

<sup>17</sup> The full text of the “Internet Freedom and Preservation Act” is available at: <http://www.publicknowledge.org/pdf/s215-110-20070109.pdf>.

<sup>18</sup> The full text of the “Internet Freedom and Preservation Act of 2008” is available at: <http://www.opencongress.org/bill/110-h5353/show>.

<sup>19</sup> The Internet Freedom and Preservation Act requires that prioritisation should be provided free of charge. However, there is no consensus among network neutrality proponents whether that should actually be the case. In this paper we will not further elaborate on this issue.

Several conflicts that occurred both in the US and in Europe demonstrate that network neutrality is not, as some literature alleges, “a solution in search of a problem”.<sup>20</sup> In *Madison River*, a US telephone company blocked the ability of its DSL customers to use VoIP services.<sup>21</sup> In another case *Comcast Corporation*, a US network operator was sued for preventing bittorrent users from seeding files.<sup>22</sup> In Europe, some network operators were reported to block VoIP and peer-to-peer systems.<sup>23</sup> Similarly, the removal by some UK mobile operators of VoIP functionality from Nokia N95 handsets last year, triggered network neutrality concern.<sup>24</sup> Prioritisation, which implies a higher level of traffic shaping than blockage or degradation<sup>25</sup>, has not yet been fully installed by network operators. Nevertheless, PlusNet, a UK-based network operator, has already started selling prioritisation services for different types of Internet applications.<sup>26</sup> Last but not the least, several network operators have expressed their intentions to discriminate against Internet content providers.<sup>27</sup>

### 3. 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 of network operators against Internet content providers and individual Internet users. We identify two fields within the current European legislation which might be apt to deal with this discrimination. On the one hand there are the sector-specific rules contained in the 2003 Regulatory Framework, and on the other hand there is relevant industry-wide regulation, in particular EU competition law. The last section of this part will discuss the legislative proposals recently published in the context of the electronic communications reform, focusing on the proposed amendments relating to network neutrality.

#### 3.1 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, also the most important, is the so-called significant market power (SMP) regime. According to this regime, in order to regulate network operators,

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<sup>20</sup> See, A. Sura, "The Problem with Network Neutrality", (2006), available at: [http://www.freedomworks.org/informed/issues\\_template.php?issue\\_id=2571](http://www.freedomworks.org/informed/issues_template.php?issue_id=2571).

<sup>21</sup> See, *Madison River Communications, L.L.C. and Affiliated Companies*, Order, File No. EB-05-IH-0110, 20 F.C.C.R. 4295 (Enforcement Bureau, 2005).

<sup>22</sup> See, R. Singel, "Comcast Sued Over BitTorrent Blocking – UPDATED", November 14, 2007, available at: <http://blog.wired.com/27bstroke6/2007/11/comcast-sued-ov.html>

<sup>23</sup> See, M. Geist, "Towards a two-tier internet", BBC, 22 December 2005, available at: <http://news.bbc.co.uk/1/hi/technology/4552138.stm>.

<sup>24</sup> See, Truphone, "Removal of VoIP Functionality Threatens Mobile Net Neutrality, Says Truphone", April 23, 2007, available at: <http://truphone.blogspot.com/2007/04/removal-of-voip-functionality-threatens.html>.

<sup>25</sup> Technically speaking, it is more difficult to prioritise a particular data flow than to delay or to block it. See, OECD (2007), *supra* note 9.

<sup>26</sup> See PlusNet's policy on its prioritised broadband at: [http://www.plus.net/support/broadband/quality\\_broadband/](http://www.plus.net/support/broadband/quality_broadband/).

<sup>27</sup> See, Save the Internet, "What they've got planned", available at: <http://www.savetheinternet.com/=threat#abuse>.

the National Regulatory Authorities (NRAs) 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 which enjoy(s) SMP. This is equivalent to the notion of “dominance” under Article 82 of the EC Treaty,<sup>28</sup> on the market so defined. In case that no undertaking is found to have SMP there should be no regulation at all on that market. If the NRA concludes 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.<sup>29</sup>

Under the second mechanism NRAs can regulate network operators regardless of the existence of SMP in predefined circumstances. According to Article 5 of the Access Directive<sup>30</sup>, 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 with the SMP regime which is tightly monitored by the European Commission - grants NRAs with quite some 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 available for all end-users at an affordable price (universal service obligations, ‘USO’) and a certain degree of transparency concerning contracts of provision of electronic communications services.<sup>31</sup> For the time being, broadband Internet access (with specified characteristics in terms of quality and price) is not included in the list of European universal service obligations. Almost all other provisions in the area of consumer protection (such as contractual and transparency obligations) relate to public

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<sup>28</sup> See, Article 14 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] O.J. L 108/33 (Framework Directive).

<sup>29</sup> See, Article 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] O.J. L 108/7 (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 13a, Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives 2002/21/EC on a common Regulatory Framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and services, and 2002/20/EC on the authorisation of electronic communications networks and services (hereinafter: Better Regulation proposal), available at: [http://ec.europa.eu/information\\_society/policy/ecomms/doc/library/proposals/697/com\\_2007\\_0697\\_en.pdf](http://ec.europa.eu/information_society/policy/ecomms/doc/library/proposals/697/com_2007_0697_en.pdf).

<sup>30</sup> *Ibid*, Article 5 of Access Directive.

<sup>31</sup> See, Directive 2002/22/EC of the European Parliament and of the Council of March 7, 2002 on universal service and users’ rights relating to electronic communications networks and services, [2002] O.J. L108/51 (Universal Service Directive).

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

Besides those, another directive 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 (hereinafter: RTTE Directive). The RTTE Directive, aiming to create an open competitive single market for telecommunications terminal equipment, prohibits unjustified restrictions of electronic communications terminal equipments by network operators.

### **3.2 EU competition law**

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

The most relevant rule for our analysis can be found in Article 82 EC Treaty and prohibits the abuse of dominant positions. This provision imposes a special responsibility on dominant undertakings so that they are not allowed to 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 EC Treaty in general does not permit network operators that are in a dominant position to discriminate in an anti-competitive manner without objective justifications among Internet content providers in similar circumstances.

Article 81 EC Treaty targets distortions of competition which 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 (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 common market. Examples of ‘hardcore’ restrictions prohibited by Article 81 EC Treaty include price fixing, limiting output and market allocation.<sup>32</sup>

### **3.3 Legislative proposals in the context of the electronic communications reform**

On 13 November 2007, the Commission adopted its proposals for the review of the electronic communications regulatory package.<sup>33</sup> A first proposed directive (commonly called “Better Regulation proposal”) puts forward amendments to the Framework, Access and Authorisation Directives, a second one (“Citizens Rights

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<sup>32</sup> Some scholars believe that Article 81 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 refuse to supply prioritisation to some Internet content providers because they have entered into exclusive supply contracts with others. In those cases Article 81 EC Treaty may be used to scrutinise such exclusive agreements. See, e.g., C. T. Marsden, “Net Neutrality and Consumer Access to Content”, (2007) *Scripted*, Vol 4, No. 4.

<sup>33</sup> More details can be found at: [http://ec.europa.eu/information\\_society/policy/ecomms/tomorrow/reform/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecomms/tomorrow/reform/index_en.htm).

proposal”) contains 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<sup>34</sup>, the Commission’s legislative proposals now have to be approved by the Council of Ministers and the European Parliament. Final adoption of the new directives is not expected before 2009.

Basically, the Commission considers that the existing rules in EC law can sufficiently deal with network neutrality problems with the exception of problems in relation to degradation of the quality of service to unacceptably low levels.<sup>35</sup> In its amendments to the Universal Service Directive,<sup>36</sup> the Commission introduces two measures with the aim of safeguarding “basic access and quality of service (‘net neutrality and freedoms’)”:<sup>37</sup>

- (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 limitations imposed by the provider on their ability to access or distribute lawful content or run any lawful applications and services of their choices. 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 degradation of quality of service and 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).

In addition, we see two more provisions that could be of relevance to the net neutrality discussion:

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<sup>34</sup> Art. 95 EC Treaty forms the legal basis for the electronic communications directives (harmonisation measures); this article refers to the co-decision procedure in Art. 251 EC Treaty, under which the Commission takes the initiative by submitting proposals to the Council of Ministers and the European Parliament who then both have to approve the proposals.

<sup>35</sup> See, 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/ecomms/doc/library/proposals/ia\\_en.pdf](http://ec.europa.eu/information_society/policy/ecomms/doc/library/proposals/ia_en.pdf).

<sup>36</sup> 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: “Citizens Rights proposal”), available at: [http://ec.europa.eu/information\\_society/policy/ecomms/doc/library/proposals/698/com\\_2007\\_0698\\_en.pdf](http://ec.europa.eu/information_society/policy/ecomms/doc/library/proposals/698/com_2007_0698_en.pdf).

<sup>37</sup> See, Explanatory Memorandum to the Citizens Rights proposal, p 9.

- (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 of 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.<sup>38</sup>

In April 2008, the lead committees of the European Parliament have published their draft reports on the review. For the Citizens Rights proposal, this is the draft report prepared by Malcolm Harbour (EPP-ED, UK) of the Committee on the Internal Market and Consumer Protection (IMCO) (hereinafter: Harbour Report).<sup>39</sup> IMCO will vote on the Harbour Report on 7 July, 2008 and the European Parliament will vote in plenary on 2-4 September, 2008.<sup>40</sup> The draft 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.<sup>41</sup>

With regard to the amendment in relation to Article 22, al. 3 (second point mentioned above), the Harbour Report suggests, firstly, that it should be the NRAs, rather than the Commission, that have the power to impose minimum quality of service requirements; secondly, minimum quality of service requirements can also be imposed "*to ensure that users' ability to access or distribute lawful content or to run lawful applications and services of their choice is not unreasonably restricted*"; and thirdly, as an unreasonable restriction can be considered a restriction that

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<sup>38</sup> This proposal is a corollary of Article 8.4.g of the proposed Framework Directive that "end-users should be able to access and distribute any lawful content and use any lawful applications and/or services of their choice". See, amendments to Article 8 Framework Directive in the Better Regulation proposal, *supra* note 29.

<sup>39</sup> 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), PE404.659v01-00, 14 April, 2008, available at: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+COMPARL+PE-404.659+01+DOC+PDF+V0//EN&language=EN>.

<sup>40</sup> The review of legislative proposal of the Commission by the Parliament works in such a way that 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 at a final step the Parliament discusses its position with the European Council to reach a common position.

<sup>41</sup> Concerning this first amendment, the Harbour Report suggests repositioning it to Article 20, al. 2, b), rather than Article 20, al.5. See, Amendments 18 and 26 of the Harbour Report, *supra* note 39. With regard to the second amendment, the core of this amendment to impose obligation of transparency on price and tariff is maintained, but the scope of the obligation is extended and the wording is changed. See, Amendment 29-34, the Harbour Report, *supra* note 39.

discriminates “*according to source, destination, content, or type of application and is not duly justified by the operator*”.<sup>42</sup>

With regard to the amendment of Article 28 (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 for 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*”.<sup>43</sup>

#### **4. Applicability of EU Law on Network Neutrality Problems**

This part examines whether the sector-specific rules on the one hand and competition rules on the other hand 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 to the electronic communications regulatory framework to see whether they provide solutions for possibly remaining gaps in the existing frameworks.

##### **4.1 The 2003 Regulatory Framework**

###### *4.1.1 Electronic communications services vs. 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.

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<sup>42</sup> *Ibid*, Amendment 37 of the Harbour Report.

<sup>43</sup> *Ibid*, Amendment 48 of the Harbour Report.

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 upon 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 on the one hand and Internet content providers on the other hand are not under the guard of the 2003 Regulatory Framework. Article 20 again underlines the limitations of the scope of application of the 2003 Regulatory Framework, notably to transmission networks and services.

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

#### 4.1.2 The SMP regime

In order to impose any obligation on network operators, regulatory authorities must in first instance define relevant market(s). Furthermore, in order to define a relevant market, NRAs have to take utmost account of the Commission’s recommendation on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation (hereafter: the Recommendation).<sup>44</sup> Within this Recommendation the Commission lists 7 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 analyze whether the relevant market for network neutrality problems are included in the list of the 7 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.<sup>45</sup> 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 service chain, the markets for the deal between network operators and their customers, i.e. Internet content providers and end-users, are in general retail markets.

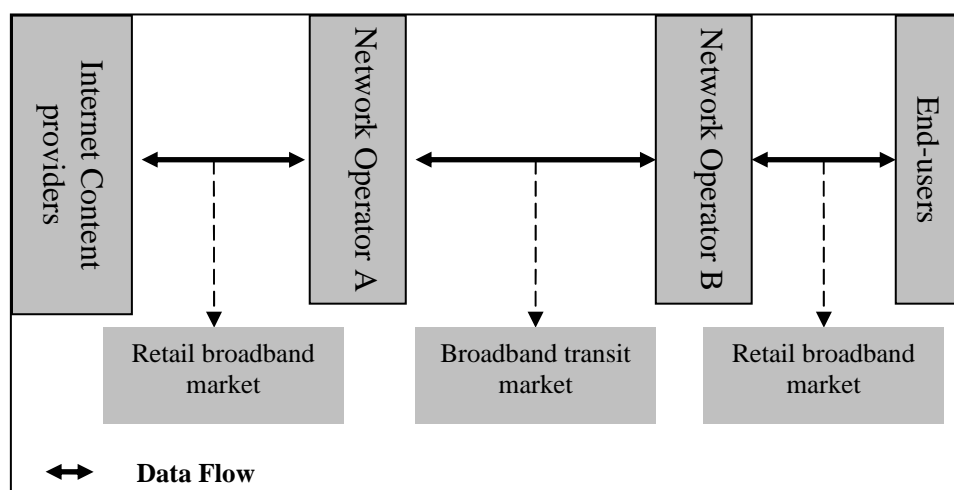
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<sup>44</sup> See, COMMISSION RECOMMENDATION of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common Regulatory Framework for electronic communications networks and services, 2007/879/EC, 28.12.2007, O.J. L 344/65. This is the second edition of the 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 42).

<sup>45</sup> Google built a wireless broadband network in San Francisco in 2003. Network neutrality opponents consider that this is evidence that discrimination of network operators can incentivise Internet content providers entering markets for Internet infrastructures, thereby promoting consumer welfares. However, Google clearly announced that it had no intention to enter infrastructure market.

Consequently, there are four groups of parties and two types of markets involved in the entire transaction, as described by the following Figure 1.<sup>46</sup>

**Figure 1: Relevant markets related to network neutrality**



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 7 recommended markets. Even within the earlier edition of the Commission’s recommendation on relevant markets (where the Commission listed 18 markets<sup>47</sup>), there was no mention of the retail broadband market.

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.<sup>48</sup> Nevertheless, it proves to be very difficult to include retail broadband markets into *ex ante* regulation. 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. Second, in practice no NRA has ever defined and analysed retail broadband markets under the Article 7 procedure.<sup>49</sup>

Even if the NRAs would manage to include retail broadband markets into *ex ante* regulation and would find that the network operator that infringes network neutrality has SMP, it is still unlikely that they can remedy the problem. The NRA has to choose from a ‘toolbox’ of remedies, ranging from obligations relating to transparency or non-discrimination, over accounting separation, to imperative access and price control

<sup>46</sup> For a more complex scheme of relevant markets, see: F. Chirico, I. v. d. Haar and P. Larouche, *l.c.*, p 18.

<sup>47</sup> See, COMMISSION RECOMMENDATION of 11 February 2003 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 communication networks and services, 2003/311/EC, 8.5.2003, O.J. L 114/45.

<sup>48</sup> See, the Recommendation, *supra* note 44.

<sup>49</sup> For an overview of draft NRA measures and Commission comments under the Article 7 procedure: [http://circa.europa.eu/Public/irc/info/ecctf/library?!=/overview\\_commission&vm=detailed&sb=Date\\_d](http://circa.europa.eu/Public/irc/info/ecctf/library?!=/overview_commission&vm=detailed&sb=Date_d).

regulation. All those remedies, however, refer to “interconnection and/or access”.<sup>50</sup> 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*”<sup>51</sup> while interconnection refers to “*the physical and logical linking of public communications networks*”.<sup>52</sup> Apparently, all those obligations are confined to regulating the relation between electronic communications networks or services providers and do not extend to the services provided to customers, in this case 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*”.<sup>53</sup>

#### 4.1.3 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 (*supra*). 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 service provided to Internet content providers and end-users, neither the Article 5 regime can apply to network neutrality problems. Nevertheless, some network neutrality proponents consider that launching the new technology of traffic prioritisation will result into segmented standards among different networks and thus problems of interconnection.<sup>54</sup> It should be noted that this concern can be addressed by the Article 5 regime.

#### 4.1.4 The RTTE Directive

Network operators might restrict their customers’ ability to attach certain devices, e.g. gaming consoles, Internet phones and Wi-Fi routers 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 telecommunications*<sup>55</sup> *networks do not refuse to connect telecommunications terminal equipment to appropriate interfaces on technical grounds*”<sup>56</sup> unless the apparatus “*causes serious damage to a network or harmful radio interference or harm to the network or its functioning*”<sup>57</sup>. Furthermore, network operators must obtain authorisation from their Member States before refusing connection, disconnecting such apparatus or withdrawing it from service and the Member States

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<sup>50</sup> See, Article 9-13, the Access Directive, *supra* note 29.

<sup>51</sup> *Ibid*, Article 2(a).

<sup>52</sup> *Ibid*, Article 2(b).

<sup>53</sup> See, e.g., Gabrielle Gauthey, “Next Generation access networks and net-neutrality”, presentation at the IDATE Transatlantic Telecom Forum, November 14th, 2007, available at: <http://www.arcep.fr/fileadmin/reprise/communiqués/discours/g-gauthey-idade-1107.pdf>.

<sup>54</sup> See, D. J. Weitzner, “The Neutral Internet: An Information Architecture for Open Societies”, (2006) available at: <http://dig.csail.mit.edu/2006/06/neutralnet.html>.

<sup>55</sup> 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.

<sup>56</sup> See, Article 7, al. 3 of Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity, 07.04.1999, O.J. L 91/10.

<sup>57</sup> *Ibid*, Article 7, al. 4.

concerned should notify the Commission of those authorisations.<sup>58</sup> Thus the EU provides a legal ground to take care of unreasonable restrictions on attached devices by network operators.

To conclude, 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.<sup>59</sup> Nevertheless, the RTTE Directive can govern the unreasonable restrictions of network operators on end-users attaching devices to their networks. Subsequently we will analyse the applicability of the general competition rules to other network neutrality problems.

## 4.2 EU competition law

### 4.2.1 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 operators. Reasons for this situation may either be lack of alternative network operators or existence of preventive switching cost.<sup>60</sup> Where there are no sufficient alternative network operators or preventive switching costs on a relevant market, it also means that network operators that block Internet content providers have dominant positions. Under this situation network operators may have incentive to abuse their dominant positions by not carrying data of unaffiliated Internet content provider in order to favour their affiliated ones. It was already evidenced by the aforementioned US case *Madison River* where a network operator blocked VoIP services in order to promote its traditional telephone services.

Putting it into EU competition law terms, blockage is within the category of “refusals to supply or deal”. Nevertheless, undertakings, even dominant undertakings, in principle are 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. Only in exceptional circumstances are dominant undertakings obliged to serve all possible customers. This principle has been developed into European case law and is referred to as the “essential facilities doctrine”, despite that this term itself never appeared in any European courts’ judgment. Although the definition of an “essential facility” is fraught with difficulty, the central idea is that it

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<sup>58</sup> *Ibid.*

<sup>59</sup> 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 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.

<sup>60</sup> See, V. Kocsis and P. W. J. d. Bijl, "Network Neutrality and the Nature of Competition between Network Operators" (2007) *International Economics and Economic Policy*, Vol 4, No. 2, pp 159-184.

is something owned or controlled by a dominant undertaking which other undertakings need to access in order to provide products or services to customers.<sup>61</sup> In the recent *Microsoft* case<sup>62</sup>, the European Court of First Instance (hereinafter: CFI) had a chance to re-synthesise the conditions of the essential facilities doctrine established in earlier cases.<sup>63</sup> 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:<sup>64</sup>

- “in the first place, the refusal relates to a product or service indispensable to the exercise of a particular activity on a neighbouring market;
- in the second place, the refusal is of such a kind as to exclude any effective competition on that neighbouring market;”<sup>65</sup>
- In the last place, the refusal can not be “objectively justified”<sup>66</sup>.

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.<sup>67</sup> It is also true for services that are tightly depended on by undertakings in the neighbouring markets. Reference can be found in *Télémarketing* 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 Court of Justice (hereinafter: 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.”<sup>68</sup> Apparently without the television advertising minutes the advertiser cannot perform its telemarketing activity.

Applying to our situation of blockage, Internet content services and retail broadband services are also neighbouring but separate markets. Furthermore, similar as 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

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<sup>61</sup> See, A. Jones and B. Sufrin, *EC Competition Law: Text, Cases, and Materials*, [2008] (Oxford University Press, New York), pp 537.

<sup>62</sup> European Court of First Instance, Case T-201/04, *Microsoft vs. the Commission*, 17 September 2007.

<sup>63</sup> See, e.g., European Court of Justice, Joined Cases 6 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 311/84, *Télémarketing v CLT and IPB*, 3 October 1985, [1985] ECR 3261; European Court of Justice, Joined Cases C-241/91 P and C-242/91 P, *RTE and ITP v the Commission*, 6 April 1995, [1995] ECR I-743; European Court of First Instance, Case T-504/93, *Tiercé Ladbroke v the Commission*, 12 June 1997, [1997] ECR page II-923; European Court of Justice, Case C-7/97, *Bronner*, 26 November 1998, [1998] ECR I-7791; European Court of Justice, Case C-418/01, *IMS Health v NDC Health*, 29 April 2004, [2004] ECR I-5039.

<sup>64</sup> 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, Para 334, Case *Microsoft*, *supra* note 56.

<sup>65</sup> *Ibid*, Para 332.

<sup>66</sup> *Ibid*, Para 333.

<sup>67</sup> See, Para 25, Case *Commercial Solvents*, *supra* note 57.

<sup>68</sup> See, Para 27, Case *Télémarketing*, *supra* note 57.

excluding 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 heavy burden.<sup>69</sup> For example, in *Microsoft* the CFI did not accept Microsoft's argument that the disclosure of interoperability information of Windows work server operating system to its competitors might produce a negative effective on innovation in the industry as a whole.<sup>70</sup> Consequently, the victims of blockage have a real chance to see the blockage lifted on the basis of the essential facilities doctrine.

#### 4.2.2 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; otherwise degraded Internet content providers will simply switch to other network operators. Nevertheless, two scenarios can be imagined where network operators may wish to degrade data transmission services for certain customers.

- First, network operators with market power might aim at leveraging their market powers onto Internet content markets and accordingly wish to disfavour unaffiliated Internet content providers by degrading the latter's data transmission capabilities.
- Second, in order to launch the new technology of prioritisation, network operators, instead of building new infrastructure, reconstruct their current infrastructures without increasing the capacity of their networks.<sup>71</sup> In this case prioritising some customers necessarily implies a general degradation of other non-prioritised customers.

The first scenario, or discriminatory degradation, is an easy case for the 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".<sup>72</sup> Regarding discriminatory degradation, network operators degrade services of unaffiliated Internet content providers in order to favour affiliated ones, similar as the case of blockage. Consequently, as long as degraded Internet content providers can prove the transactions concerned are "equivalent", not necessarily "identical"<sup>73</sup>, they can resume similar treatment of data transmission services as affiliated Internet content providers based on Article 82 of the EC Treaty.

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<sup>69</sup> See, for example, Case *Commercial Solvents Corp*, *supra* note 57; European Court of Justice, Case C-77/77, *BP v. the Commission* [1978] ECR 1513, [1978] 3 CMLR 174; and European Commission, Case No IV/30.178, *Napier Brown British Sugar* [1988] O.J. L 284/41, [1990] 4 CMLR 196.

<sup>70</sup> See, Para 688-712, Case *Microsoft*, *supra* note 56.

<sup>71</sup> See, E. W. Felten, "Nuts and Bolts of Network Neutrality", (2006), available at: <http://itpolicy.princeton.edu/pub/neutrality.pdf>.

<sup>72</sup> European Court of Justice, Case T-83/91, *Tetra Pak International SA v the Commission*, Oct. 6, 1994, 1994 ECR II-755, para 160.

<sup>73</sup> European Court of Justice, Case T-128/98, *Aéroports de Paris v the Commission*, Dec. 12, 2000 ECR II-3929, para 202.

The case of 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. Dissimilar treatments among different relevant markets are not subject to Article 82 of the EC Treaty. Therefore, in order to demonstrate that they were discriminated, degraded Internet content providers must prove that there is at least one Internet content provider on 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 are within the same relevant market. Considering the different characteristics of non-prioritised and prioritised services, they are probably not on the same relevant market.<sup>74</sup> Supposing they are not within the same relevant market, there is in fact no discrimination against non-prioritised Internet content providers because on the non-prioritised market all Internet content providers are degraded.

Considering 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.”<sup>75</sup> It is not legally certain that degraded non-prioritised customers can reclaim their previous data transmission services based on this provision. Therefore, Article 82 of the EC Treaty may be not a good means to deal with the general degradation in the second scenario.

#### *4.2.3 Unreasonable Restrictions on running applications*

Network operators might restrict their customer’s ability from running specific Internet applications, such as peer-to-peer file sharing networks (e.g. USA Case *Comcast*), for purposes of capacity management. They might abuse this right by simply blocking users without any objective justification.<sup>76</sup> 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 their broadband access. Accordingly network operators are not forbidden from initiating restrictions on the services they provide to customers.

#### *4.2.4 Prioritisation*

Prioritisation means that network operators provide guaranteed data transmission services to customers so that in case of congestion prioritised data flow can still be

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<sup>74</sup> 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 demand side those two services are not on the same relevant service market. In addition, in Case *Corbeau* the European Court of Justice considered that basic mail service express mail service were not on the same market. This case may imply that prioritised service and non-prioritised service are not on the same relevant market either. See, European Court of Justice, Case C-320/91 *Corbeau* [1993] ECR I-2533, [1995] 4 CMLR 621.

<sup>75</sup> See, L. Ritter and W. D. Braum, *European Competition Law: A Practitioner's Guide*, [2004] (Kluwer Law International, The Hague, the Netherlands), pp. 433.

<sup>76</sup> This section does not cover cases where network operators, in order to discriminate among Internet content providers, prevent end-users from attaching certain devices or certain applications operated by those Internet content providers; these cases are discussed in the previous section of “Blockage”.

delivered regardless of congestion.<sup>77</sup> The main issue, at least from a competition perspective, emerges when network operators after installing prioritisation reserve the prioritised services only to a limited number of customers.<sup>78</sup> This may for instance occur when network operators agree to exclusive supply contracts regarding prioritisation with favoured Internet content providers. In the following, two scenarios will be assessed under the EU competition law regime: first, whether dominant network operators may legitimately refuse the provision of prioritisation under Article 82 of the EC Treaty; second, whether the exclusive supply contracts between network operators without market power and Internet content providers are compatible with Article 81 of the EC Treaty.

#### 4.2.4.1 Refusal to supply access by dominant undertakings

It should be underlined once again that the European courts never took the position that all dominant undertakings have an absolute duty to supply their products or services to all those who request them. Only in exceptional circumstances is there an obligation on dominant undertakings to do so, *i.e.* under the “essential facilities doctrine”. The problem concerning prioritisation is also a case of 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, 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. Departing from these considerations, we will now proceed to analyse whether the essential facilities doctrine can apply to this case.

The first condition of the “essential facility doctrine” calls for an indispensability test. In *Tiercé Ladbroke*, the CFI stated that the refusal to supply could fall within the prohibition laid down in Article 82 of the Treaty where it “concerned a product or service which was either essential for the exercise of the activity in question, in that there was no real or potential substitute”.<sup>79</sup> The European 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 newspaper, exist and are used by the publisher of those daily newspaper*”.<sup>80</sup> Furthermore, in *Microsoft*, 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*

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<sup>77</sup> Also called “access-tiering”; cf. F. Chirico, I. v. d. Haar and P. Larouche, *l.c.*, 42.

<sup>78</sup> See, V. Kocsis and P. W. J. d. Bijl (2007), *supra* note 54.

<sup>79</sup> European Court of First Instance, Case T-504/93, *Tiercé Ladbroke v Commission* [1997] ECR page II-923, para 131.

<sup>80</sup> See, para 43, Case *Bronner*, *supra* note 57.

*solutions made it possible to achieve the high degree of interoperability which the Commission correctly required in the present case.*"<sup>81</sup>

Coming back to our case of denial of access to prioritisation, the same argument as in the *Bronner* case may also apply in the sense that there is indeed a substitute, *i.e.* non-prioritised data transmission services, available for unaffiliated Internet content providers, even though they may be at some disadvantage. Consequently, the essential facilities doctrine does not apply to the case of denial of access to prioritisation by the reason that its first condition is not met.<sup>82</sup> In sum, 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.

#### 4.2.4.2 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.

We will start by analysing whether such 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 to realise Internet services for end-users, the agreements concluded between them are vertical, rather than horizontal. Commission Regulation No. 2790/1999<sup>83</sup> (hereafter: the Regulation) provides "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 on which

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<sup>81</sup> See, para 435, Case *Microsoft*, *supra* note 56.

<sup>82</sup> However, the *Microsoft* judgement may open a backdoor for refusal of supply prioritisation from some point of view. The CFI decision that Microsoft should disclose its interoperability information to its competitors is based not only on that there are no reliable substitutes, but also on Microsoft's rapidly increasing market share and its competitor's steeply decreasing market shares. The CFI considers that such an evolution of market shares evidences a dilution of effective competition. It should be noted that the CFI uses the decrease of market shares of alternative competitors as one of the arguments for the indispensability of Microsoft's interoperability information, despite a fact that there is a competitive fringe of firms, in particular vendors of Linux-based work group server operating system, that are viable in niches of the market. Compared with the earlier threshold of elimination of *all* the competition, the CFI lowers down the threshold of the essential facilities doctrine to some extent. Therefore, Internet content providers that are refused to access prioritisation may obtain prioritisation based on the new interpretation of essential facilities doctrine by claiming their market shares decrease rapidly after other Internet content providers start being prioritised. However, the possibility to draw such conclusions from the *Microsoft* judgement is contested and some scholars even think that the *Microsoft* case would be an isolated judgement. Therefore, it is not certain that affected Internet content providers can claim access to prioritisation according to the "new" development in EU competition case law with the *Microsoft* judgement. See, Christian Ahlborn and David S. Evans, "The *Microsoft* Judgment and its Implications for Competition Policy towards Dominant Firms in Europe" (2008) <http://ssrn.com/abstract=1115867>.

<sup>83</sup> 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, OJ L 336/21.

it purchases the prioritised service.<sup>84</sup> Applying to this case, block exemption can be obtained provided Internet content providers that purchase the prioritisation do not hold market shares of more than 30% on the relevant markets for Internet contents they provide to customers. Last but not the least, although in principle the block exemption applies without time limitation, if the buyer is expressly subject to a non-compete clause, the non-compete obligation must not exceed five years.<sup>85</sup> To conclude, the exclusive supply contract with the duration of less than five year with Internet content providers of which the market share is less than 30% can be exempted.<sup>86</sup>

Exclusive supply agreements that do fall under the scope of the block exemption of the Regulation must be examined under Article 81(1) of the EC Treaty. In principle the EU competition law takes a milder attitude towards vertical restrictions. In the *Delimitis* case<sup>87</sup>, the ECJ stated that in determining the effect of exclusive supply agreements it is first necessary to define the 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. Considering that the network operators have small market shares in this scenario, the exclusive supply agreements can hardly be said to foreclose market entry because of inter-brand competition among different network operators. Furthermore, exclusive supply agreements may give alternative network operators at issue incentive to roll out new infrastructures<sup>88</sup>, which is an important policy objective of the electronic communications regulation. Consequently, those exclusive supply agreements are very likely to be compatible with Article 81(1) of the EC Treaty.

In conclusion, 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.

#### *4.2.5 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 to access prioritised services.

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<sup>84</sup> *Ibid*, Article 3(2).

<sup>85</sup> *Ibid*, Article 5.

<sup>86</sup> Provided the conditions mentioned in Article 4 are fulfilled as well (containing the black-listed provisions).

<sup>87</sup> See, European Court of Justice, Case C-234/89, *Delimitis vs. Henniger Brau* [1991] ECR I-935, [1992] 5 CMLR 210.

<sup>88</sup> See e.g. George S. Ford, Thomas M. Koutsky, Lawrence J. Spiwak, "Network Neutrality and Industry Structure", Phoenix Center Policy Paper Number 24, 2006, available at: <http://www.phoenix-center.org/pcpp/PCPP24Final.pdf>.

### 4.3 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 those 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.

#### 4.3.1 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 for 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 can only deal with disputes between undertakings providing electronic communications networks and services (*supra*). Nevertheless, the 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*”<sup>89</sup>, 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 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*”.<sup>90</sup> This amendment broadens the concept of access to the benefit of information services provided over broadband 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 NRAs could regulate network neutrality.<sup>91</sup>

In April the Committee on Industry, Research and Energy (ITRE) of the Parliament published its draft report on the review of the Framework Directive, the Access Directive and the Authorisation Directive (hereinafter: Trautmann Report).<sup>92</sup> Within

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<sup>89</sup> See, Article 20 of the proposed Framework Directive, *supra* note 26.

<sup>90</sup> See, Article 2 of the proposed Access Directive, *supra* note 26.

<sup>91</sup> See, e.g., Gauthey (2007), *supra* note 48.

<sup>92</sup> 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 networks and services (Rapporteur: Catherine Trautmann, 2007/0247(COD), PE398.542v02-00, 23 April 2008, available at:

this draft report, Ms. Trautmann upholds the extension of dispute resolution mechanism to disputes where one of the parties is an undertaking providing electronic communications networks and services. Nevertheless, she does not support the extension of the definition of access to cover information society services and broadcast content services. Her concern is to “*prevent[s] the regulation from covering content issues, which would open a much bigger field of litigation (already covered in AVMS and eCommerce directives).*”<sup>93</sup>

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

#### 4.3.2 General / Systematic Degradation

In its Impact Assessment, the 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 the entire non-prioritised data transmission services, in order to promote / enlarge the scope of their prioritised data transmission services); “*the problem also remains that the current Regulatory Framework does not provide NRAs 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*”.<sup>94</sup> 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). Were this provision adopted, NRAs would have a tool to prevent network operators from systematically degrading non-prioritised data transmission services to unacceptably low levels.

#### 4.3.3 Unreasonable Restrictions on running applications

Another remaining problem that in our view cannot be tackled under existing legal framework is that network operators may set up unreasonable restrictions on running some applications on their networks to the detriment of their customers.

This problem is observed by the Commission. Solutions are envisaged within the 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), on the one hand, 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), on the other hand. Increasing transparency is considered to be a good safeguard to

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<http://www.europarl.europa.eu/sides/getDoc.do?type=COMPARL&mode=XML&language=EN&reference=PE398.542>.

<sup>93</sup> *Ibid*, Amendment 60, pp 45.

<sup>94</sup> See, Impact Assessment, pp 92, *supra* note 32.

ensure that network operators do not distort competition and to ensure that broadband markets remain or become competitive.<sup>95</sup>

As mentioned before, the Harbour Report suggests broadening the powers of NRAs to adopt minimum quality of service requirements and take active steps also in situations where access is unreasonably restricted, for instance, if a limitation is discriminatory for reasons of source, destination, content or type of application.

#### 4.3.4 Prioritisation

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

First, broadband internet access is still not proposed to be included in the universal service package<sup>96</sup> – the Commission’s proposal of November 2007 being limited to clarifying that the connection at a fixed location (which should be guaranteed as part of the universal service obligations) “*shall be capable of supporting voice facsimile and data communications, at data rates that are sufficient to permit functional Internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility*” (Art. 4, al. 2) – but even if broadband internet access would become part of USO, it is unlikely that prioritised data transmission services would be considered 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.

To conclude this part, the 2003 Regulatory Framework does not apply to network neutrality problems since it does not take the direct interests of Internet content providers (besides their indirect interest in a competitive broadband market) into account. Outside the 2003 Regulatory Framework, the EU competition law and the RTTE Directive can tackle some network neutrality problems but leave others unsolved. In addition, the legislative proposals will in our view solve some of the residual problems, except for the issues relating to prioritisation. The following paragraphs provide some ideas on whether and how to regulate prioritisation in the EU.

## 5. How to Deal with Prioritisation

### 5.1 The Commission’s position

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<sup>95</sup> See, OECD (2007), *supra* note 12.

<sup>96</sup> Commissioner Reding said she will publish a Green Paper on the issue of whether broadband should be included in the universal service package in 2008. See, V. Reding, “How Europe can Bridge the Broadband Gap”, presentation at conference - Bridging the Broadband Gap: Benefits of broadband for rural areas and less developed regions, Brussels, 14 -15 May 2007, available at: [http://ec.europa.eu/commission\\_barroso/reding/docs/speeches/brussels\\_20070514.pdf](http://ec.europa.eu/commission_barroso/reding/docs/speeches/brussels_20070514.pdf).

Prioritisation is a double-edged sword in the sense that it can be used to improve QoS on the network whereas it can also be potentially employed in an anti-competitive manner to block or disadvantage competing services. Despite this, the 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.*”<sup>97</sup> 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.”<sup>98</sup>

Can the EU law ensure users have choice to access the transmission capacities and service they want? The Commission’s logic for its positive answer to this question is bifurcated.<sup>99</sup> First, the Commission considers that the current EC 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 on the relevant market, if a network operator denies an Internet content provider to access 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 enter that market pursuant to *ex ante* access obligations imposed on the dominant operator and 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 suitably open environment for both European consumers and service providers”.<sup>100</sup>

## 5.2 Comments on the Commission’s position

Although it is hard to assess the welfare effects of prioritisation,<sup>101</sup> we tend to agree with the Commission about its 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 demand of QoS.<sup>102</sup> The current Internet data transmission, which is based on the “end-to-end” principle, does not support QoS. Nevertheless, delay-sensitive Internet contents that fear being disturbed by non-guaranteed data transmission services, such as VoIP, streaming video and so on, call for guaranteed data transmission, *i.e.* QoS. Besides prioritisation, there is an alternative way to satisfy the demand of QoS. This approach is that network operators always over-provide the capacity of 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 of physical facilities of the broadband infrastructure, especially at the backbone level. However,

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<sup>97</sup> See, Impact Assessment, pp 91, *supra* note 35.

<sup>98</sup> *Ibid.*

<sup>99</sup> *Ibid.*, pp 91-92.

<sup>100</sup> *Ibid.*, p 92.

<sup>101</sup> As was already noted by Chirico et al., existing economic literature shows no consensus on the issue; F. Chirico, I. v. d. Haar and P. Larouche (2007), *supra* note 39.

<sup>102</sup> See, NGNI (Next Generation Network Initiative, a project sponsored by the European Commission), “QoS: Quality of Services for IP Networks”, (2002), available at: <http://www.ngni.org/qos.htm>.

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 the chokepoints somewhere among networks, which is very unpredictable and not necessarily related to capacity.<sup>103</sup> Second, capacity at the “local loop”, or the “last mile”, is generally limited and increasing capacity at 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.<sup>104</sup> Therefore, we do not agree with the Commission’s conclusion that the current EC 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 reserve their prioritisation services exclusively to 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 those 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 other alternative network operators can actually act, thereby meeting the demand of affected Internet content providers. In case of high switching costs for the affected Internet content providers or high entry barriers for potential alternative network operators at stake,<sup>105</sup> 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.

### **5.3 Ideas on prioritisation regulation**

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<sup>103</sup> See, L. Mamatras, T. Harks and V. Tsaoussidis, "Approaches to Congestion Control in Packet Networks", (2007) *Journal of Internet Engineering*, Vol 1, No. 1.

<sup>104</sup> Nevertheless, the 2003 Regulatory Framework does provide an indirect solution for network neutrality problems, which is to improve competition in the retail broadband market. The common recognition between network neutrality proponents and opponents is that effective competition should be the best solution to network neutrality problems. However, they differ in the satisfaction with the existing competition.

<sup>105</sup> According to the Commission’s Recommendation on relevant markets, markets for local loop unbundling and broadband access are still characterised by high entry barriers and lack of dynamic competition; and therefore they should continue to be subject to *ex ante* regulation. See, the Recommendation, pp 33-34, *supra* note 40.

Within the intense debate on network neutrality, the proponents and the opponents of prioritisation or access-tiering provide arguments of almost equal weight. It is rather difficult to take a quick 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 (only one network operator, PlusNet, launched prioritisation in Europe; *supra*); besides, our remarks to 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 prioritisation is harmful or beneficial to the society in the end. In that regard it is suggested to take a prudent approach on prioritisation regulation.<sup>106</sup>

Nevertheless, we consider that taking a completely "wait-and-see" approach may be too risky since, on the one hand, prioritisation may possibly affect the competition among Internet content providers while, on the other hand, there is for the time being no legal instrument at the disposal of the European authorities. Consequently, we think it is better to impose only "minimum" regulation on prioritisation while allowing it to develop under 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, sometimes even for real technicians, to discover whether a faster / slower data transmission comes from spare / scarce capacity of the networks or 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. Second, 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 would lead to a new form of digital divide (in this case referring to the information gap between people with prioritisation and ones without it).<sup>107</sup> 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 be a first legitimate step, however.

Finally, our approach is similar as the "light-touch" regulatory regime proposed by Marsden.<sup>108</sup> In order to achieve such a minimum regulation we propose an obligation for transparency on network operators providing prioritisation. When necessary, the Commission or NRAs can 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<sup>109</sup>; second, requiring network operators to notify relevant authorities of the terms and clauses of their agreements when confidential issues are involved.

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<sup>106</sup> See also F. Chirico, I. v. d. Haar and P. Larouche (2007), *supra* note 39.

<sup>107</sup> 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", (2008), available at: [http://en.wikipedia.org/wiki/Digital\\_divide](http://en.wikipedia.org/wiki/Digital_divide).

<sup>108</sup> See, Marsden (2007), *supra* note 29.

<sup>109</sup> See PlusNet How to manage traffic on its network at: [http://www.plus.net/support/broadband/quality\\_broadband/traffic\\_prioritisation.shtml](http://www.plus.net/support/broadband/quality_broadband/traffic_prioritisation.shtml).

This could be done by amending the transparency obligations under Article 21 of the proposed Universal Service Directive, i.e. “transparency and publication of information”, 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 that can neither be solved under the existing rules or other rules being proposed. 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.

## 6. Conclusions

The new technology of prioritisation, though not 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 as the accelerator of the robust growth of the Internet at its edge for decades. While having technical advantages to support QoS, this new technology can possibly allow network operators to discriminate against Internet content providers. In order to prevent possible abuse of this new technology to the detriment of consumers, scholars initiated the public debate on maintaining “the Internet” neutral.

In this paper we have examined the applicability of the current EU communications regulatory framework and competition rules to the most common forms of potentially anti-competitive behaviour in relation to net neutrality. We have also looked at the legislative proposals for amending the 2003 Regulatory Framework.

From our analyse, we can conclude that:

(1) it is difficult, if not impossible, to tackle the studied problems under the 2003 Regulatory Framework, first because the retail broadband market is not listed as a market susceptible to *ex ante* regulation and second, 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) also the EU competition rules are only able to solve part of the network neutrality problems, including blockage, degradation (in some circumstances);

(3) the remaining problems arising from prioritisation will not even be fully resolved under the modified regulatory framework for electronic communications when taking into account the limited scope of the legislative proposals in the area of net neutrality. Network operators will 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 transparency obligation in Article 21 Universal Service Obligation to 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”<sup>110</sup>). However, we suggest that both the Commission and NRAs follow the evolutions closely and resume the discussion on prioritisation when the technology/service has taken up.

## References:

- Atkinson, R. D. and Weiser, P. J., "A Third Way on Network Neutrality" (2006) 13 *The New Atlantis*, pp 47;
- Cave, M. and Crocioni, P., "Does Europe Need Network Neutrality Rules?" (2007) 1 *International Journal of Communication*, pp 669;
- Chirico, F., v. d. Haar, I. and Larouche, P., "Network Neutrality in the EU" (2007) TILEC Discussion Paper No. 2007-030, available at: <http://ssrn.com/abstract=1018326>;
- Hahn, R.W. and Wallsten, S., “The Economics of Net Neutrality”, *Economists’ Voice*, June 2006, available at <http://www.aei-brookings.org/publications/abstract.php?pid=1067>;
- Jones, A. and Sufrin, B., *EC Competition Law: Text, Cases, and Materials*, [2008] (Oxford University Press, New York);
- Kocsis, V. and de Bijl, P. W. J., "Network Neutrality and the Nature of Competition between Network Operators" (2007) 4 *International Economics and Economic Policy* 2, pp 159;
- Lemley, M. A. and Lessig, L., "The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era" (2000) UC Berkeley Law & Econ Research Paper No. 2000-19; Stanford Law & Economics Olin Working Paper No. 207; UC Berkeley Public Law Research Paper No. 37, available at: <http://ssrn.com/abstract=247737>;
- Levinson, D., "Network Neutrality: Lessons from Transportation", (2006), available at: <http://nexus.umn.edu/Papers/NetworkNeutrality.pdf>;
- Marsden, C. T., “Net Neutrality and Consumer Access to Content”, (2007) *Scripted*, Vol 4, No. 4, pp 407-435
- OECD, “Internet Traffic Prioritisation: An Overview”, Note by TIPS, (2007) (DSTI/ICCP/TISP(2006)), available at: <http://www.oecd.org/dataoecd/43/63/38405781.pdf>;
- Peha, J. M., Lehr, W. H. and Wilkie, S., "The State of the Debate on Network Neutrality" (2007) 1 *International Journal of Communication*, pp 709;
- Ritter, L. and Braum, W. D., *European Competition Law: A Practitioner's Guide*, [2004] (Kluwer Law International, The Hague);

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<sup>110</sup> Quoting Professor Milton Müller (Syracuse University N.Y. and XS4All Professor Technology University of Delft) at a recent presentation in Brussels; M. Müller, “Net Neutrality as Global Principle for Internet Governance”, *Competition Law in Electronic Communications (CLEC) seminar on Network neutrality and the reform to the EC package* (organisation: ICRI, CRID, Cullen International, ISPA Belgium, Time.Lex), Brussels, 17 April 2008, available at: <http://www.cullen-international.com/documents/cullen/cipublic/netneutralityclecseminarapril2008.cfm>.

- Saltzer, J. H., Reed, D. P. and Clark, D. D., "End-to-end Arguments in System Design" (1984) 2 *ACM Transactions on Computer Systems* 4, pp 277;
- Sidak, J. G., "What Is the Network Neutrality Debate Really About?" (2007) 1 *International Economics and Economic Policy*, pp 377;
- Valcke, P., Queck, R. and Lievens, E., *EU communications law: significant market power in the mobile sector*, [2005] (Edward Elgar, Cheltenham).
- Weiser, P. J., "The Next Frontier for Network Neutrality" (2008) 60 *Administrative Law Review* 2;
- Yoo, C. S., "Network Neutrality and the Economics of Congestion" (2006) 94 *Georgetown Law Journal*, pp 1847;
- Yoo, C. S. and Wu, T., "Keeping the internet neutral?: Tim Wu and Christopher Yoo Debate" (2007) 59 *Federal Communications Law Journal* 3, pp 575;
- T. Wu, "Network Neutrality & Broadband Discrimination" (2003) 2 *Journal of Telecommunications and High Technology Law* 141, available at: <http://ssrn.com/abstract=388863>.