Response to the consultation by the Body of European Regulators in Electronic Communications BEREC on Net Neutrality Policy

(See http://erg.eu.int/doc/berec/consultation_draft_guidelines.pdf)

Background

This is a collaborative submission from a group of academics based in the UK with expertise in Information technology law and related areas. The preparation of the response has been funded by the British and Irish Law Education Law and Technology Association. The response has been co-ordinated by the Information Technology Think Tank, which is supported by the Arts & Humanities Research Council and led by the SCRIPT/AHRC Centre for Research and Intellectual Property and Technology, University of Edinburgh.

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This response has been approved by the Executive of BILETA (the British and Irish Law, Education and Technology Association http://www.bileta.ac.uk/default.aspx) and is therefore submitted on behalf of BILETA.

In addition, this response is submitted by the following individuals:

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On 22 June 2011, it was reported that the Netherlands became the first country in Europe to legislate for Network Neutrality principles.[1] Information and communication service providers like mobile telephone operators are now banned from blocking or charging consumers extra for using Internet-based communication services. In the United States, the Federal Communications Commission adopted a set of rules for its Net Neutrality policy, which comes into operation on 20 November, 2011.[2] The industry has not fully endorsed this policy and has launched a legal challenge.[3] Network Neutrality policymaking provokes a wide range of reactions as evidenced by consultation processes in the US, UK and EU. These reactions are in essence a product of the perspectives the various actors in this debate bring to bear (e.g. policymakers, industry, innovators, consumers and citizens) on questions relating to who can or should define the rules on **what** we access, **how** we access and **what** we consume from providers like ISPs, Google, Apple, Skype, broadcasting and telecommunication companies.[4]

We welcome BEREC's contribution to the extent that it brings to the forefront the role and value of transparency in Network Neutrality policymaking.[5] The following response acknowledges the complexity of the policy issues raised by Network Neutrality and views the work of BEREC in this respect as part of a much needed dialogue with all stakeholders, aimed at creating an **Open Internet** that will continue to adhere to the ideals of the visionaries who "invented" the Internet. This contribution deliberately

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[1] http://tinyurl.com/6g5zn5o (accessed on 18 October 2011)

[2] http://tinyurl.com/6c7z6yt (accessed on 12 October 2011)

[3] http://tinyurl.com/5ulcspm and Verizon v. FCC et al, D.C. Circuit Court of Appeals, No. 11-1359 (accessed on 12 October 2011)

[4] Commission Communication: The open internet and net neutrality in Europe (32719) 9350/11 COM(11) 222, Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 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 associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services. See OJ No. L 337 2009, 18.12.09, p.37; Directive 2009/136/EC of the European Parliament and of the Council of 25 November 2009 amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, 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 cooperation between national authorities responsible for the enforcement of consumer protection laws. See OJ No. L 337 2009, 18.12.09, p.11

[5] See Ofcom Traffic Management and 'net neutrality', http://tinyurl.com/3a3twyk;BSG, BSG response to Ofcom discussion paper on traffic management and net neutrality http://tinyurl.com/648mzodBSG, BSG response to European Commission questionnaire on the open internet and net neutrality http://tinyurl.com/65nlfvq Broadband Stakeholder Group, Broadband providers launch new traffic management transparency code - BSkyB, BT, O2, TalkTalk, Three, Virgin Media and Vodafone signed up to a new voluntary commitment to provide better and more easily comparable information to consumers about traffic management. These companies make up for approximately 90% of all fixed-line broadband customers and 60% of all mobile customers in the UK. http://tinyurl.com/6h29q88; Google-Verizon Proposed Legislative Framework for Net Neutrality: http://tinyurl.com/36ukv3t and CRTC Telecom Regulatory Policy CRTC 2009-657 http://tinyurl.com/yfyzspx

avoids introducing the normative underpinnings of Network Neutrality *per se*, or the premises informing the role of transparency.[6] These caveats should be borne in mind, as the Consultation Document clearly acknowledges – adherence to transparency principles, policies and norms will in themselves not guarantee an Open Internet. Accordingly, the focus will be directed on selected aspects from the Consultation Document.

CHAPTER 1 – PURPOSE AND SCOPE OF GUIDELINES

1. Subject to what will said later with regard to "traffic management", we agree that guidelines are needed in ensuring that traffic management processes and policies are transparent, meaningful and subject to effective monitoring and enforcement mechanisms. We also acknowledge that a fully effective transparency policy should aim at satisfying **all** of the following characteristics:
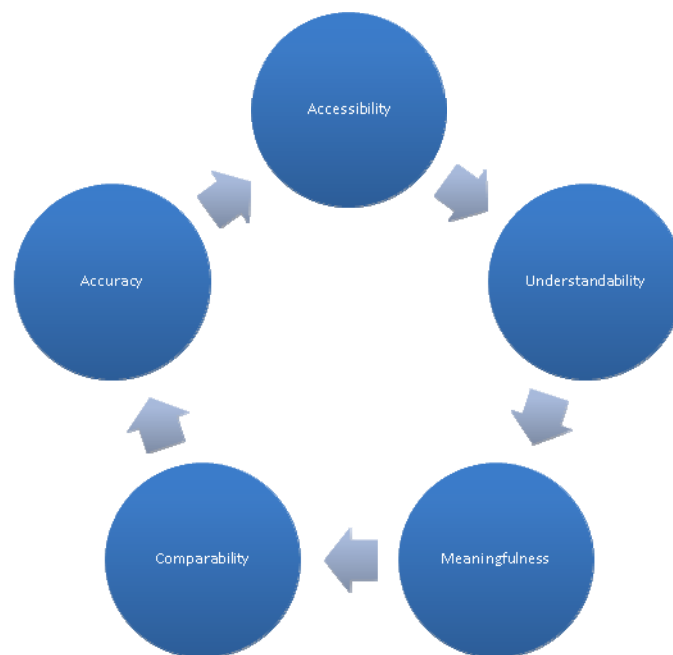

Figure 1: Transparency as an instrument for governance

2. There is an important role for greater participation by all stakeholders in engaging with the development of voluntary codes of practice and ensuring adherence with Network Neutrality Principles (i.e. interoperability, decentralisation and non-discrimination). It is important that we frame the consultation process as involving stakeholders, rather than consumers and the corporate sector.

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[6] Digital Agenda: Commission launches consultation on open internet and net neutrality (IP/10/860) http://tinyurl.com/35sc44k (accessed on 16 October 2011)

Tim Berners-Lee design principles for the World Wide Web
An information system must be able to record random associations between any arbitrary objects
If two sets of users started to use the system independently, to make a link from one system to another should be an incremental effort, not requiring unscalable operations such as the merging of link databases
Any attempt to constrain users as a whole to the use of particular languages or operating systems was always doomed to failure
Information must be available on all platforms, including future ones
Any attempt to constrain the mental model users have of data into a given pattern was always doomed to failure
If information within an organization is to be accurately represented in the system, entering or correcting it must be trivial for the person directly knowledgeable

Table 1: The Fundamental Design Principles (Source: http://www.w3.org/People/Berners-Lee/1996/ppf.html).

3. We agree with the value of increasing consumer awareness on Network Neutrality matters, namely, to "provide guidance about the information that needs to be brought to the attention of end users and the public in the context of the net neutrality debate" in a comprehensible and meaningful way.[7] It is imperative that resources are made available to ensure effective monitoring.[8]

4. ISPs and content and application service providers need to indicate their understanding of the transparency principle and that this must be communicated consistently to consumers irrespective of the content and services accessed or consumed. It is particularly crucial that the guidelines are implemented accordingly (e.g fixed and mobile content service providers) – "transparency covers, inter alia, information about communication services, such as the minimum/average quality levels offered by the providers and any procedures put in place in order to measure and shape traffic".

5. When drafting Network Neutrality policies, information provided must be brought to the attention of end users, mechanisms need to be put in place to ensure that "deviations from net neutrality" can be brought to the attention of appropriate parties.[9] This is not to

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[7] See generally Review of the Internet traffic management practices of Internet service providers CRTC 2009-657 http://tinyurl.com/yfyzspx (accessed on 28 October 2011)

[8] Canadian Radio-television and Telecommunications Commission (CRTC). (2010). Communicationsmonitoring report. Retrieved from www.crtc.gc.ca/eng/publications/reports/policymonitoring/2010/2010MonitoringReportFinalEn.pdf (accessed on 1 November 2011)

[9] P Weiser, (2008) Exploring Self Regulatory Strategies for Network Management, http://tinyurl.com/6bwpms3 (accessed on 28 October 2011)

say that the operation of a complaints based system will resolve the ongoing issues regarding the prioritisation or monetization of traffic/content. If the experiences of the CRTC are anything to go by, identifying deviations by ISPs and addressing complaints from consumers is not a straightforward process.[10] It should not be overlooked that the process of identifying deviations will require access to ISPs infrastructure and considerable technical capabilities and resources for monitoring and enforcing compliance.[11]

6. Transparency has an important role in promoting good governance and compliance with existing obligations under the various EU directives. Whilst it is true that transparency is a necessary but not a sufficient guarantee, it is equally important to recognise that non-compliance with other principles can also implicate the benefits derived from promoting transparency. There are two further observations to be made. First, we need clear transparency obligations with regard to the throttling of particular data traffic and these must be signposted and presented in a way that does not impose considerable time, effort and energy on consumers (e.g. use of price and service comparisons).[12] It is well-known that many consumers will not read the "fine print" or find the "technical" jargon opaque. Second, information should also be provided which illustrate how transparency requirements are being implemented by service/content provider and ISPs.

CHAPTER II – Major requirements for a net neutrality transparency

1. It is generally accepted that the principle of transparency is critical to the maintenance of the Open Internet. The goal of transparency policies should be to ensure that the Internet continues to be open whilst alive to market and innovation issues.(see Table 1) Accordingly, informed decision making is one component in good governance. It should be required for all products and services.

2. Transparency undoubtedly can and should promote literacy in the broadest sense, but it should not be confined to "the technical and economic conditions of the provision of Internet access services".

3. Traffic management techniques. For the principle of transparency to facilitate end user decision making, it is important to make clear which forms of traffic management are currently being employed by access and content service providers, the quality of service

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[10] See for example http://tinyurl.com/6x8bueq

[11] See for example Canadian broadcasting system Broadcasting and Telecom Notice of Consultation CRTC 2011-344, Results of the fact-finding exercise on the over-the-top programming services http://tinyurl.com/65oqfj8 (accessed on 1 November 2011)

[12] See Wall Communications Inc, Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions, prepared for the Prepared for the Canadian Radio-television and Telecommunications Commission and Industry Canada, http://tinyurl.com/66ye4o8 (accessed on 1 November 2011)

offerings and the available choices. There is at present little or no transparency in this regard.[13]

4. We agree that provisions in the Universal Service Directive (i.e. Articles 20 and 21) provide an overarching framework for promoting transparency. However, to ensure that the mechanism of transparency achieves its goals, we cannot avoid addressing the issue of how best potentially anti-competitive/exploitative leveraging of limited choices open to consumer can be addressed (e.g. Level 3 "peering disputes).[14] Consequently, there is a need to grapple with the thorny practical issue of what "minimal quality of service" should be made available to end users, without eroding the principle of non-discrimination. It could be said that the market will provide checks and balances (i.e. exit and voice) – customers will then be free to voice their concerns or seek alternative access service providers. As the recent consultation exercise by Ofcom illustrates, switching is not a simple process and may not be regarded a viable option for many end users. It is however important to obtain some empirical evidence indicating how end users respond to current traffic management techniques and quality of service (QoS) issues when using smart phones and the Internet for entertainment, interaction with others, consumption of social media and work. Apart from the problems in identifying what constitutes "minimal quality of service" – there is the broader concern that legitimating such a norm within the architecture of the Internet may invariably lead us towards a non-open Network if ISPs can now regard prioritisation of traffic as a legitimate response notwithstanding Network Neutrality concerns. If this is the general thrust of policymaking, it is not clear how transparency will reduce regular misclassifications of traffic or for that matter the ensuing detriment to various stakeholders in the marketplace. We need some hard thinking here: would SKYPE have emerged as a provider of quality communications if ISPs provided VoIP with high QoS? Additionally, the reverberations from the WikiLeaks saga and its significance for civil society are not readily apparent.

5. The two approaches to producing understandable information for end users should ensure some degree of flexibility in the way accessible and relevant information is made available to end users. It is extremely important for Industry to work with all stakeholders to ensure that approach most suited to the sector and demographic is pursued.

6. Traffic management already takes place, however, it is imperative that we distinguish *management techniques* from filtering or blocking. The categorisation of traffic management in terms of "problematic" and "non-problematic" measures needs to be more nuanced (e.g. anorexia websites, child pornography, P2P sites, illegal sharing of intellectual property content and degradation of services and content). The question of what is lawful content or measures should not be left to Industry but the law and the courts.

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[13] For a good example of promoting transparency see G Finnie, Report
ISP Traffic Management Technologies: The State of the Art, On behalf of
The Canadian Radio Television and Telecommunications Commission (CRTC) (2009)
http://tinyurl.com/6agtywy (accessed on 1 November 2011)
[14] See generally http://tinyurl.com/65p68xz and http://tinyurl.com/6a7no8h (accessed on 1 November 2011)

Additionally, we cannot have a situation where ISPs in particular actively direct bandwidth allocation without any accompanying accountability processes.

7. We agree that the approach of transparency should not be different for mobile and fixed networks – notwithstanding this, some rules are clearly needed to protect both consumers and competitors from the discrimination that can arise when last-mile broadband network providers merge or enter into contractual or tethering agreements.[15]

8. Consistency of understanding and implementation of transparency processes within the Industry is critical and we wait to see what solutions are put forward by the various Internet and network/content providers to this recommendation by BEREC:

- using common terms of reference for the description of Internet access services, including the clarification on the difference between restricted and unrestricted offers, in order to clearly distinguish them;

- promoting the use of relevant standards (either existing and open, or agreed upon through consultation processes), in order to give meaning to otherwise complex metrics. Instead of more objective parameters, such as latency or jitter, this could help to provide indications or measurements closer to the users' experience, such as the downloading time of a web page;

- limiting the number of "exceptions" or limitations to be explained to the users, as a result of reaching a consensus on which traffic management practices are not problematic. In this case, the "first tier" of information would not need to include an exhaustive list of measures put in place by ISPs. This can be complemented with a more exhaustive set of data being made available to interested users or third parties.

(Source: BEREC document page 25)

How will we know if carriers avoid making "objective findings" accessible to the public? Perhaps BEREC should consider the methodology/approach adopted by Ofcom when analysing mobile and fixed line issues.

We must avoid a situation where the public does not know what precisely is being done to their traffic; additionally, the positioning of third parties as arbiters and holders of unique data sets must be subject to effective regulatory oversight.

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[15] http://tinyurl.com/4ouss3n

Chapter III – Contents of a Net Neutrality Transparency Policy

1. We agree that the contents of a Network Neutrality Transparency Policy must based on measurable criteria and welcome BEREC's acknowledgement of the value of Article 20 in this regard.[16]

2. We have some concern that current Network Neutrality principles, in particular transparency, may not keep abreast with the rapid expansion of the Internet and communication platforms at both access and application (end user) levels. It is not clear from the document how the emerging markets for connectivity and end user consumption of social media and applications balance common interests and possible competing claims (e.g. intellectual property rights, free speech, privacy and anonymity).

3. Given the competitive nature of the telecommunications industry, it is imperative that BEREC provides some guidance on how market principles (e.g. arrangements between ISPs and content service providers targeting particular services which attract better QoS) cohere with the Network Neutrality Principles in the Framework Directive.

4. Since "transparency" is seen as facilitating the attainment of complementary principles of accessibility and non-discrimination, it is crucial that transparency policies are not only drafted in a meaningful way but that its obligations are enforced.[17] It is worth reiterating the point that enforcement is key – in Canada there has been little or no real and effective enforcement under the Internet Traffic Management Practices.[18]

5. Some clarification is needed in relation to what constitutes a departure from the transparency principle.

6. It is often said that the exponential growth of the Internet has been largely due to its open source ecology but the document falls short of identifying possible tensions that surround the convergence between market and open source values. What mechanisms, other than those which ensure that application and content service providers continue to provide QoS when there is very little choice or competition?

7. We agree that appropriate tools should be made available for the users to monitor their access service. (see below)

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[16] Directive (2002/22/EC) on universal service and users' rights relating to electronic communications networks and services as amended by Directive 2009/136/EC ("Citizens' Rights Directive") http://tinyurl.com/3c5ddq7

[17] See generally Press Release, Federal Communications Commission, Commission Orders Comcast to End Discriminatory Network Management Practices (Aug. 1, 2008), http://tinyurl.com/6y8zgl (accessed on 27 October 2011)

[18] Public Interest Advocacy Centre, Staying Neutral: Canadian Consumers and the Fight for Net Neutrality, http://tinyurl.com/6fnbu73 (accessed on 26 October 2011)

Figure 2: screenshot from http://www.broadbandspeedchecker.co.uk/
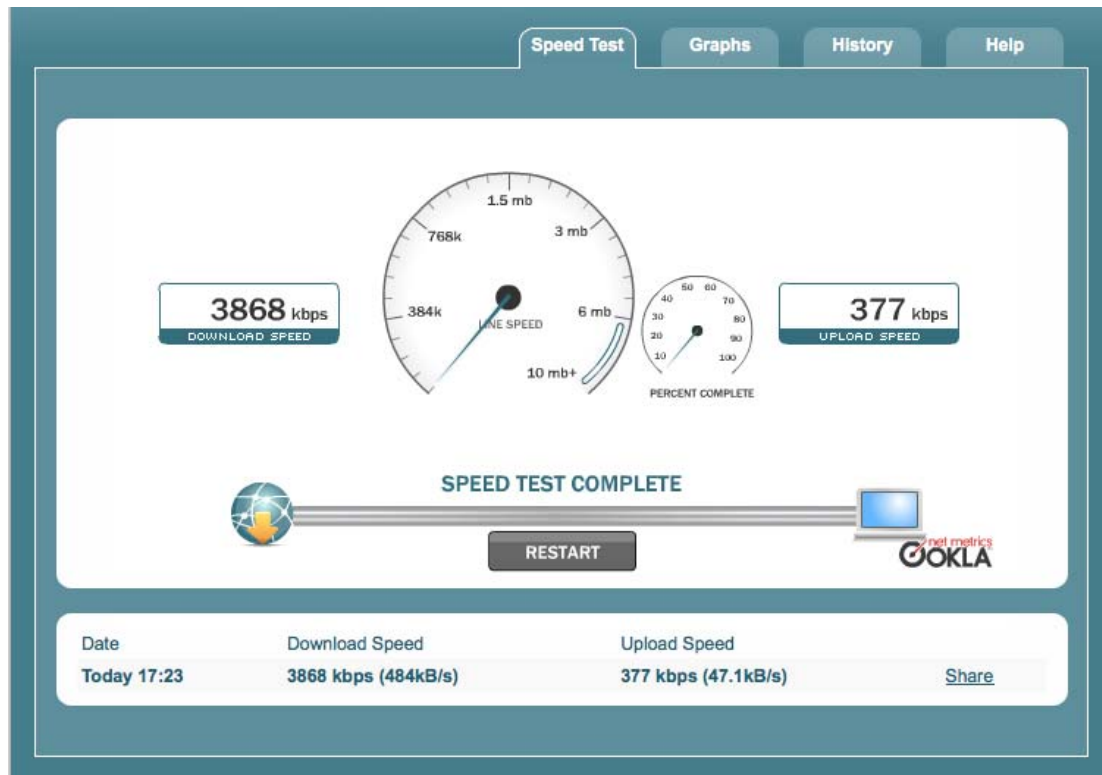
8. We agree that a transparency policy can be used to empower end users with relevant information, including a range of information categories: generic/comparative/individual indicators; scope of the services and limitations.

Chapter IV - Ensuring transparency

1. We agree that all access and service providers and NRAs can adopt meaningful transparency strategies, which empower consumers. However the diagram below in essence elevates the norms of discrimination and non-openness. This in short embeds market norms and principles – carriers can now choose "winners" and "losers" based on protocol differentiation. To be sure, it would be counterintuitive under the scheme depicted below, for carriers to desist from protocol differentiation. The threshold must be – no protocol differentiation unless content/information flows threaten network integrity/security.
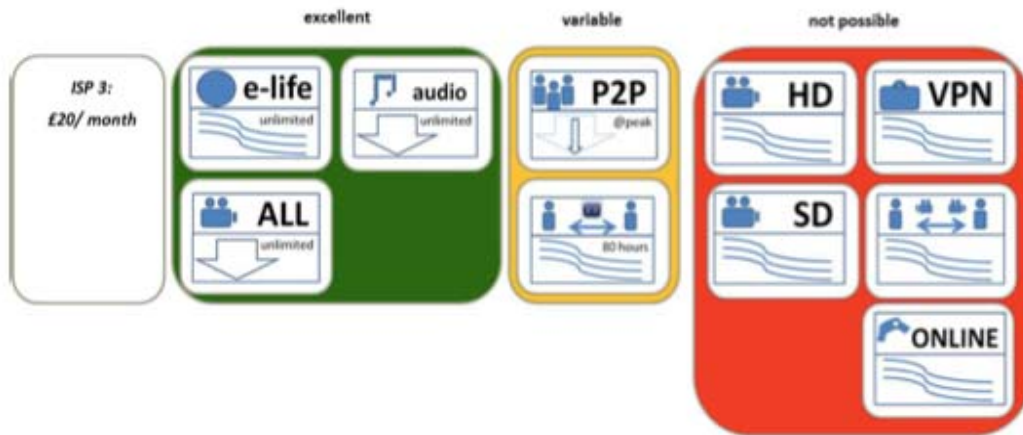
(Source:BEREC,p.25)

- o green light = un-restricted offer (which include application agnostic methods to handle congestion)
- o yellow light = restricted offer with application specific throttling (e.g. p2p file sharing at peak hours)
- o red light = restricted offer with some applications completely blocked.

(Source: BEREC, p.40)

Broader questions/issues that require further consideration by BEREC

1. What is Network Neutrality and the role of Transparency

Network neutrality is not well-known outside the Industry, policymakers, consumer organisations, civil society advocacy groups and scholars. This may be an opportune moment to adopt a Multi-Stakeholder Governance approach.

It is also important to make clear the distinction between "process" and "outcome" of transparency measures relating, for example, to reasonable network management practices. Three further points should be noted. First, contractual/notice provisions could be used where the network management practice involves access to particular services/content. Second, as commentators have observed, if network neutrality principles are not to be eroded a distinction must be made between "reasonable management practices" which are necessary for maintaining network functionalities and services and "reasonable management practices" motivated by the need to monetize traffic.[19]Third, it is also incumbent that measures used to address behaviour deemed to be Network Neutrality "agnostic" are proportionate. Rather than propose additional regulation, ideally, a Multi-Stakeholder Governance body funded by NRAs/EU ensuring visibility and compliance.

2. How can "transparency" enhance the Network Neutrality Principles?

Three points need to be made here. First, we need to map transparency norms and principles from, for example, the Framework Directive and the Universal Service Directive (e.g. Articles 20 – 22) into existing traffic management techniques, the details surrounding access to fixed and mobile services and underpinned by EU and National Legislation. Article 8 of the Framework Directive embeds the principle of Network Neutrality and envisages "transparency" as performing an important role. NRA's must provide a lead in this regard (recital 41 of the Framework Directive and recital 51 of the Universal Service Directive). (see Figure 3)

Second, it would be preferable to adopt a Multi-Stakeholder Governance Framework. We need industry to articulate their network management policies and practices (i.e. congestion, security, P2P networks, bandwidth). These policies need to be provided with a benchmark identifying what constitutes compliance/abuse. There remain considerable areas of doubt: will access service providers be required to explain market considerations informing decisions to restrict VOIP on mobile as opposed to fixed networks, "throttling" of traffic or providing subscriptions for priority traffic during peak times? These network management practices need to be backed up by compliance mechanisms. (See the voluntary code introduced by the Broadband Stakeholder Group (BSG)). Given the ubiquity of computing in all areas of life in the Networked Society, transparency in the measures, processes and techniques adopted by various network access, service,

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[19]   http://members.bitag.org/kwspub/background_docs/WeiserNetworkManagement.pdf (accessed on 1 November 2011)

content and application providers can shape the individual's ability to communicate with each other. The presumptive rule of non-negotiability is perhaps an extreme position – since it is clear to everyone that that some form constraints at the end-user may be necessary. That said, the transparency process must be alive to the need for ensuring the capacity for innovation.[20]

Third, transparency is not purely a "consumer" issue. Where consumers/citizens find that operators discriminate traffic based on source, destination or content; and/or define the content/services/applications that can be accessed, these should be the subject of disclosure provisions. The lack of transparency (i.e. unreasonable traffic management and tethering of applications and services) can harm both innovators and consumers/citizens and impair their choices and decisions.[21] For example, the availability of content or services (e.g. BBC iPlayer or Skype) may be dependent on commercial discriminatory practices by network access providers. The WikiLeaks saga, is another illustration of how Network Neutrality issues can impact individuals as citizens. Hence BEREC's definition of transparency as covering "inter alia, information about communication services, such as the minimum/average quality levels offered by the providers and any procedures put in place in order to measure and shape traffic" is both restrictive and excludes individuals as EU citizens in Network Neutrality policymaking. "Transparency" benefits all end users – individuals, citizens, consumers, innovators and industry. To paraphrase and extend Jonathan Zittrain's observation, unreasonable management techniques in fixed or mobile networks can have long-term ramifications for the generative features of the Internet. We suggest that any definition of transparency must also signpost issues that concern us as citizens in the EU Information Society and consequently, the "short-term" decision making of consumers must be seen against the overarching framework of the "collective good". There are "trade-offs" – and its important that we keep in mind the unintended consequences that can accompany the centralisation of architectural decisions amongst corporate stakeholders and vested interests. BEREC must reflect the specific harms that can accompany barriers to innovation and harms that can result from an uncritical transposition of market norms and principles into the Internet including the creation of new power relationships between communicators and carriers, centralization of network management and erosion of governance from the "edge" of the Networks. The Council of Europe for example elevates the rights to freedom of expression and information as important policy objectives.

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[20] See http://openmedia.ca/sites/openmedia.ca/files/OpenNetReport_ENG_Web_0.pdf (accessed on 1 November 2011)

[21] See generally A Broache (2008) FCC wants to know: Is degrading P2P traffic 'reasonable'? Cnet News Blog, http://tinyurl.com/6f8lpmu (accessed on 1 November 2011); C Kang (2010) Court rules for Comcast over FCC in 'net neutrality' case. The Washington Post, 7 April, http://tinyurl.com/ylhzukc (accessed on 1 November 2011)
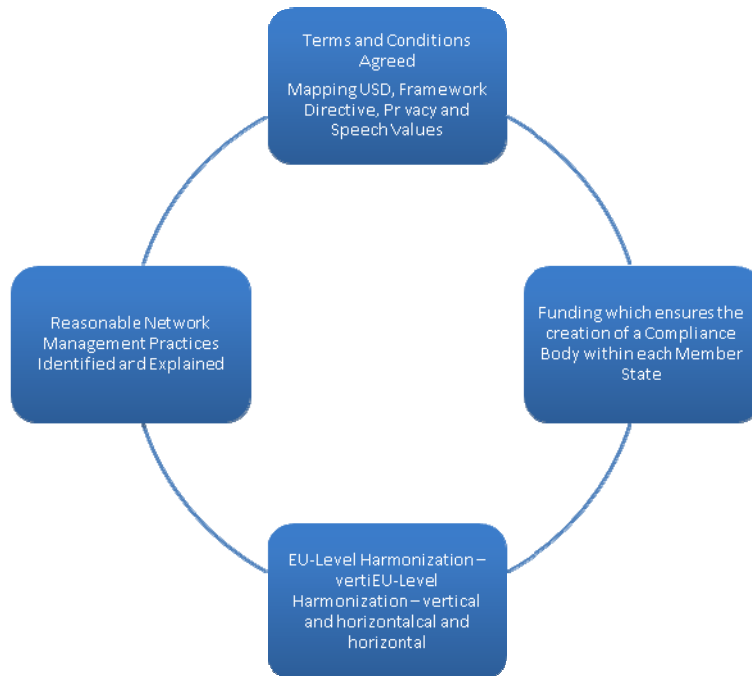
A Network Neutrality Consumer/Citizen Framework

Figure 3: A Network Neutrality Framework for New Generation of Internet Users.

End of submission