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BEREC public consultations on Net Neutrality – 29 May 2012
Summary of EBU views

- The EBU welcomes the opportunity to respond to the three BEREC documents (i.e. Draft guidelines for Quality of Service in the scope of Net Neutrality; Draft report on an assessment of IP-interconnection in the context of Net Neutrality; Draft report on differentiation practices and related competition issues in the scope of Net Neutrality). They each provide a comprehensive and well balanced analysis of the recent tendencies and practices as well as the available tools to safeguard net neutrality.

- Effective, consistent implementation and enforcement by Member States of the Telecom Package net neutrality principles (i.e. freedom of access, transparency, non-discrimination and quality of service) is a key condition/prerequisite for guaranteeing an open Internet. Member States' legislation should ensure that everyone can access and distribute the content or run applications and services of their choice, on the device of their choice. It should also safeguard the ability of content and application providers to access end users "without permission" so that consumers are delivered the choice they expect – not just what's currently popular or profitable.

- Transparency requirements as such are vital but not sufficient. Other equally essential rules to preserve the Internet's openness relate to the principles that traffic blocking is prohibited, that traffic management should be reasonable and that minimum quality of service should be safeguarded. It is therefore essential that BEREC empowers National Regulatory Authorities (NRAs) with the necessary detailed trigger criteria for action to ensure compliance with regard to each of these criteria.

- The EBU and its Members are fully committed to an open, transparent and secure Internet. The Internet has become an essential platform for public service media for delivering services to consumers and interacting with audiences in unprecedented ways. It is the PSM remit to be universally available on all platforms reaching all segments of society. Moreover, PSM drive innovation and actively contribute to the open Internet's success (or the Internet take up) with the development of new services, new formats, new technologies and high quality content.

- End-users should have access to all legal content on the open Internet with a sufficient level of quality of service (QoS) and without extra charges. The universal service mechanism is an important tool to create an inclusive digital society and the extension of this mechanism to the best effort Internet should thus be part of a broader reflection process on a comprehensive policy approach to secure the EU "broadband for all" objectives, alongside measures to promote the use of minimum coverage and quality requirements for spectrum allocation for wireless broadband.

- Net neutrality principles will be of increasing importance, particularly in the connected TV world, and are a fundamental instrument (as are must-carry rules

on broadcasting networks) to preserve fundamental general interest objectives such as freedom of expression, media pluralism and cultural diversity. There is an inevitable link between the regulation of transmission and the regulation of content which must be taken into account. Some have proposed there may be a "special case" for content serving a specific democratic or social purpose.[1] Should the Open Internet not be maintained, then the political pressure to move towards solutions such as this will increase.

- As a general principle, ISPs should not be allowed to block any content. Any traffic management practices (i.e. throttling) on the public open Internet should be kept to a minimum and should be allowed only in specific cases (i.e. to alleviate congestion on the network during peak times and to comply with a legal justification or Court order). Discriminatory and anti-competitive traffic management practices shall be prohibited. We welcome BEREC's recognition of the risk of market foreclosure by vertically-integrated players; the barriers to achieving transparency and minimal switching costs suggest that this risk is likely to persist.

- Differentiated treatment of traffic or differentiation of practices shall be allowed as long as the same types of services are treated equally.

- Transparency and users awareness about Internet access offers and traffic management and differentiation practices is of key importance. End-users need reliable and real-time information on traffic data. PSM have started to develop specific software to track problems in order to assist their audiences.

- Moreover, it is of fundamental importance that specialised (or managed) services should not be offered by ISPs at the expense of the development of the open public Internet and should not prevent access with sufficient QoS to content provided by PSM which has to be universally available across platforms. Operators of such managed services must be required to make their services available on fair, reasonable and non-discriminatory (FRAND). The open public Internet should remain the 'norm' not become the exception. The public service value of the Internet should not be harmed.

- Investment in additional capacity and advanced technical solutions for efficient traffic delivery should go hand in hand and are key to secure the open nature of the Internet. These are the best guarantees for an optimal viewer experience. Indeed, it is by maintaining an open Internet that the incentives to invest in networks and superfast broadband are likely to be optimized.[2]

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[1] eg. Ofcom stated: *"One potential special case which is worthy of note is where the content provider is providing public service content. As noted earlier in the document, we attach particular importance to citizens being able to access news, views and information over the internet, and public service content is important in this context, in particular because of the level of trust placed in news provided by public service broadcasters. Public service broadcasters are currently able to ensure delivery of their content over traditional TV platforms, by means of 'must carry' obligations placed on those platforms. There is a question as to whether similar obligations should apply to public service content delivered online, and if so, what commercial arrangements should apply. We regard this as a matter of public policy, to be decided by government."* Paragraph 4.51, Ofcom's approach to net neutrality, November 2011.

[2] This was consistent with the findings of the FCC which stated: *"Some commenters contend that open Internet rules are likely to reduce investment in broadband deployment. We disagree. There is no evidence that prior open Internet obligations have discouraged investment; and numerous commenters explain that, by preserving the virtuous circle of innovation, open Internet rules will increase incentives to invest in broadband infrastructure."* FCC. 23 September 2011. "Preserving the open Internet." Federal Register, Vol. 76, No. 185. Economic analysis of the incentives supports this view. Rather than investing in

- Traffic management techniques should not be used as a means to avoid the necessary investments in additional capacity. With a view to reaching the ambitious European broadband connection targets, substantial investments in additional capacity are needed. In so far traffic differentiation practices are based on concerns over network congestion, maintaining these practices act as a disincentive for network investment.

- Whereas "best effort" public Internet does not necessarily imply a low performance, it should nonetheless remain “good enough.” Any policy intervention should be directed at reducing the digital divide (instead of promoting a “two-tier” or multi-tier” Internet access).

- PSM understand that end-users’ problems arise due to peak-time congestion. PSM are committed to take up responsibility to help alleviate congestion and to improve end-to-end network performance (e.g. use of CDNs to minimize network load). CDNs are a great way to improve the viewer quality of experience. PSM also adopted other measures such as the adoption of improved compression technologies or the use of broadcasting signals in hybrid devices to minimize network congestion.

- Another way to optimize traffic flows may be a right to co-location which enables content providers to install caches or edges as close as possible to the end-users. The current provisions of Directive 2002/19/EC (Access Directive) in particular Article 12 (1) (f) could be considered to include the right of co-location in (last mile) IP- networks.

- All operators at the interconnection market should use techniques that optimize the use of bandwidth available in the network. It has been proven that Multicast, the 27 year old technique that requires some sort of interconnection, reduces traffic load in the best effort network in many instances. Despite this advantage there are still operators who have not implemented this. Inefficient use of this sort should be avoided in the future. The EBU would welcome a debate on how to create the right conditions and incentives for enhanced use of efficient techniques that maximise the availability of bandwidth and optimize the data traffic. This debate should be coordinated with the debate about measures to promote the use of efficiency requirements for spectrum allocation for wireless broadband.

networks, it may be profit maximising for ISPs to charge content and application providers and slow down the roll-out and adoption of superfast broadband. It has been argued that in competitive markets, incumbents might be incentivised to invest in superfast broadband in order to differentiate themselves from their competitors, who consist mainly of unbundlers reliant on current-generation platform. However, it is likely that unbundlers would compete away the incremental revenue they raised by charging CAPs into lower retail prices in order to retain customers. The net impact would likely be a slowing down of the NGA roll-out and uptake.

EBU comments on the BEREC draft Guidelines for Quality of Service in the scope of Net Neutrality (BoR (12) 32) - 29 May 2012

General remarks

The EBU welcomes the opportunity to comment on BEREC's well-balanced Draft Guidelines for Quality of Service in the scope of Net Neutrality.

Effective, consistent implementation and enforcement by Member States of the Telecom package net neutrality principles (i.e. freedom of access, transparency, non-discrimination and quality of service) is a key condition/prerequisite for guaranteeing an open Internet. Member States' legislation should ensure that everyone can access and distribute the content or run applications and services of their choice, on the device of their choice.

The Internet's open character has been a key driver of innovation. It has led to spectacular levels of development in online applications, content and services and thus growth in the offer and the demand for content and service. Moreover, net neutrality will be of increasing importance, and particularly in the connected TV world. ISPs' traffic management practices, access and interconnection issues are at the heart of today's broadcasters' main concerns.

The EBU especially supports BEREC's approach in stressing the inevitable link between the regulation of transmission and the regulation of content, and the importance of taking into account the general interest objectives such as: "*freedom of expression, media pluralism, impartiality, cultural and linguistic diversity, social inclusion, consumer protection and the protection of minors*" (page 10), when considering Article 22(3) USD on minimum quality of service requirements.

Net neutrality principles are a fundamental instrument (as are must-carry rules on broadcasting networks) to preserve fundamental public policy objectives such as pluralism and cultural diversity and to enable public service media to carry out their public service mission on the open public Internet.

The EBU endorses BEREC's distinction between Internet access services (IAS) (best effort) and specialised services (SS) (i.e. IPTV) (pages 4 and 16) and various definitions. Whereas SS are able to guarantee QoS, IAS have no guaranteed characteristics. However, they may offer quality of experience (QoE) for the end-user. In general, any definition would need to be an evolving and dynamic concept, regularly reviewed and improved in order to reflect changing user expectations.

Moreover, it is of fundamental importance that SS should not be offered or given preferential treatment by ISPs at the expense of the development of IAS and should not prevent access to services provided by PSM with "sufficient" quality of service. The public service value of the Internet should not be harmed.

The EBU agrees with BEREC that *in cases where the capacity for SS is provided at the expense of Internet access services, QoS might also apply to SS and* should not focus only on quality conditions on the Internet access service (public Internet) (page 16). It should also be stressed that there are offers of high-quality service on managed

services (IPTV) which are not open to all interested content providers, and this could lead to discrimination and distortion of competition.

Quality of the Internet access service is of prime importance for both end-users and content-providers CAPs (i.e. broadcasters), and in particular by addressing discriminatory behaviour from ISPs as regards their traffic management practices. It is in broadcasters' interests that the end-users have access to their content and services with sufficient quality and that ISPs respect the principle of transparency and inform their subscribers of their traffic management practices.

End-users expect the Internet to be accessible, reliable, secure and fast all the time, irrespective of who owns it and who runs it. It is thus critical for ISPs to provide QoS meeting end-users' needs and expectations. In this context, as stressed by BEREC, *the ability of the end-user to switch provider or tariff, and how easy this is, will be a key element when consideration is given to whether it is necessary to impose minimum QoS requirements*.

In general, the EBU welcomes BEREC's comprehensive analysis and clarity about the extent and scope of the different regulatory tools available to NRAs to intervene in case of a degradation of service. The identification of specific criteria and methods to monitor quality (proactively or reactively) and assess whether it is necessary to apply minimum QoS requirements will be of great help for NRAs. However, certain aspects (i.e. "reasonable" or "acceptable" traffic management practice) might be developed further (see the answers to the questions below). Ultimately, active enforcement and monitoring by NRAs will be a prerequisite.

QUESTIONS

1. The criteria proposed for the assessment of degradation of Internet access service as a whole? (Ref. chapter 4)

The EBU welcomes the identification of common quality parameters (page 43) to monitor (e.g. quality of IAS over time; IAS speed; level of congestion; performance of IAS v. SS; measurements of timing parameters (i.e. latency or jitter); quality as perceived by end-users). It might be stressed that "IAS speed" alone is not sufficient. Sustainable speed necessary to carry video should also be mentioned. Moreover, "blocking and throttling of data packages" should also be part of the measurable parameters.

According to the transparency principle, those minimum requirements/parameters should be specified by the ISPs in their subscription contracts with end-users and carefully monitored and measured by independent third parties. More concretely, those parameters might be explained to the end-consumer by a traffic light labelling (comparable to EFSA or EU energy labels) for example.

The EBU agrees with BEREC that end-users should have access to the appropriate (software) tools to enable them to measure and monitor the actual parameters of their connection. In addition, those tools should be made freely available to all subscribers.

2. The criteria proposed for the assessment of issues regarding individual applications run over the Internet access service? (Ref. chapter 5)

There is a need to clarify or develop further common key elements to determine what is or is not a "reasonable" legitimate or acceptable traffic management practice. The outlines remain unclear (page 54).

3. The aspects proposed regarding the conditions and process for regulatory intervention? (Ref. chapter 6)

As stated by BEREC, the different regulatory tools may act independently or complementarily to each other, taking into account the specific circumstances of the case and also the market dimension (i.e. degradation of IAS as a whole or related to specific ISPs) (page 56). Moreover, it should be stressed that NRAs must use the full extent of tools at their disposal as certain regulatory means, such as competition rules, transparency requirements, etc., might be deemed insufficient to address degradation of service and ensure quality of service.

The EBU supports BEREC's approach when, in certain situations, it is necessary to impose minimum QoS requirements immediately, the implementation of other remedies (*ex ante* rules and *ex post* competition law) being too long and complicated (e.g. not appropriate to the fast-moving Internet markets and not applicable when operators do not have SMP). This flexibility is much appreciated (page 57).

More emphasis should be placed on the determination of minimum QoS requirements (i.e. the combination of functional/qualitative or/and technical/quantitative requirements (pages 23, 58,59) and how NRAs or actors in the free market are able to measure QoS (i.e. what the measurements tools are and which parameters can be measured) and to verify ISPs' compliance. As already stressed by BEREC, this needs to be examined once again, and the EBU would very much welcome the opportunity to exchange experience and information regarding measurement tools and the information about the data traffic ISPs should report.

Broadcasters may help in so far as they are developing software to measure quality of experience of the end user. Such software should also help to identify the origin of experienced problems, if the source is encoding (broadcast domain), the transport over the internet (responsibility of ISP, IXP, etc.) or a local player/device problem (problem of the end user). The BBC, IRT, VRT, NPO and ARD are running projects developing code in this area.

This data could also be used in a network neutrality tool when it reports on what is happening in the network when data packages are transported: Are they delayed or blocked, what is the sustained speed delivered by operators in the network or even what network management tools are used? There might be scope for a European research project in this area. BEREC could also suggest that the Commission explores ways of enforcing reporting about data travelling over ISPs' networks.

Finally, considering the high-level regulatory process description, it would be worth encouraging NRAs to put in place appropriate and effective mechanisms for the users and content providers or any affected stakeholder to alert or report incidents and problems and to discuss regularly developments and best practices.

4. To what extent are the scenarios described in these guidelines relevant with respect to your concerns/experience? Are there additional scenarios that you would suggest to be considered?

As a general principle, ISPs should not be allowed to block any content.

ISPs traffic management practices on the public open Internet should be kept to a minimum and should be allowed only in specific cases (i.e. to alleviate congestion on the network during peak times and to comply with a legal justification or Court order).

Discriminatory and anti-competitive traffic management practices shall be prohibited.

From the perspective of end-users and content providers, differentiated treatment of traffic or differentiation of practices shall be allowed as long as the same types of services are treated equally.

There could be optimisation but no prioritisation of data flows to decrease traffic congestion in hubs. For example the use of Content Delivery Networks (CDN) is a technical solution to optimise data flows. Global CDNs reduce the traffic load at network hubs that are bypassed via peering arrangements. The more traffic that is handled by CDNs the more capacity for other traffic will be available with the result that chance for congestion at busy network hubs is decreased.

It might be asked why P2P is considered a special case (page 36), even though the quantity of P2P traffic is declining it is still a viable technique that in specific (non star shaped) network topologies improves the data traffic flows. The European Project subsidised under the seventh framework programme P2P-NEXT is describing these features in detail.