Body of European Regulators for Electronic Communications

BEREC

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BEREC Report on the outcome of the public consultation on the draft BEREC Guidelines on the Implementation of the Open Internet Regulation

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Contents

1. Introduction

1.1. The title of the Guidelines

BEREC has prepared an update to the BEREC Net Neutrality Guidelines[1], which were originally adopted in 2016. This updated version will be referred to as the BEREC Guidelines on the Implementation of the Open Internet Regulation (BEREC Open Internet Guidelines). With these guidelines BEREC continues to contribute to the consistent application of Regulation (EU) 2015/2120 (hereafter: "the Regulation")[2]. The change in the title does not reflect a fundamental change.

1.2. BERECs work on the Guidelines since the adoption

In 2018, BEREC published the BEREC Opinion for the evaluation of the application of Regulation (EU) 2015/2120 and the BEREC Net Neutrality Guidelines. Following this, a formal evaluation on the implementation of the Regulation was performed by the European Commission in April 2019. In the BEREC Opinion, it was found that in general, the application of both the Open Internet Regulation and the BEREC Net Neutrality Guidelines is working well. It was concluded that both the Regulation and the Guidelines could be considered as striking a balance between the views of many stakeholders. Nevertheless, BEREC also concluded that the Guidelines could, after their application during the first two years, be clarified in certain instances. It was clear that a balance had to be struck between updating and clarifying on the one hand, and on maintaining a stable set of guidelines on the other. BEREC has sought to do this with the present updated Guidelines.

1.3. Timing of updating the Guidelines

Concerning the timing of this update; BEREC sees a need to respond to stakeholders requests to clarify certain parts of the Guidelines as well as to take account of experiences by NRAs in applying the Guidelines. Naturally, BEREC is aware of several national court cases that have led to questions being asked of the European Court of Justice (ECJ) in 2018, 2019 and 2020.[3] The answers that the ECJ is expected to provide in 2020 and 2021 are likely to be relevant for the application of the Regulation and the Guidelines. Indeed, on some aspects they could confirm or reject interpretations of the Regulation that BEREC has expressed in the (updated)

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[1] BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules, BoR (16) 127: https://berec.europa.eu/eng/document_register/subject_matter/berec/opinions/8317-berec-opinion-for-the-evaluation-of-the-application-of-regulation-eu-20152120-and-the-berec-net-neutrality-guidelines

[2] Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and retail charges for regulated intra-EU communications and amending Directive 2002/22/EC and Regulation (EU) No 531/2012, https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02015R2120-20181220

[3] C-807/18 and C-39/19 (Telenor Magyarország), C-854/19 and C-05/20 (Vodafone) and C-34/20 (Deutsche Telecom)

Guidelines. However BEREC has decided to proceed with the clarifications as foreseen in the 2018 Opinion, because there is currently no fixed date for when the pending court cases would have an outcome, nor is there presently an indication that they would lead to revisions of the Guidelines. Naturally, BEREC will closely follow the ECJs jurisprudence and amend the Guidelines if this is required.

1.4. Consultation process

A draft of the updated Guidelines was issued for consultation from 10 October 2019 until 28 November 2019 17:00 (CET). Throughout this process, the European Commission has cooperated closely with BEREC.

In accordance with BEREC's policy on public consultations, this report summarises stakeholders' views in response to the consultation and how they have been taken into account.

BEREC received 52 responses to the public consultation from various types of stakeholders. 50 contributions[4] will be published as two stakeholders provided a confidential version only and therefore those two contributions will not be published. The contributions will be available after the adoption of the Guidelines at the following link:

https://berec.europa.eu/eng/document_register/subject_matter/berec/public_consultations/

BEREC summarises the responses to the consultation under the following headings, which follow the structure of the Regulation and Guidelines:

- Background and general aspects
- Article 1 – Subject matter and scope
- Article 2 – Definitions
- Article 3 – Safeguarding of open internet access
- Article 4 – Transparency measures for ensuring open internet access
- Article 5 – Supervision and enforcement
- Article 6 – Penalties
- Annex – Assessment methodology of zero-rating and similar offers
- Questions regarding paragraphs 69 and 70

In this document, for practical reasons, the term 'stakeholders' will be used rather than the names of individual respondents to the consultation. To support the readability of the

[4] The stakeholders having submitted a public version of their contribution are listed in the annex.

document, comments and questions raised by stakeholders are addressed grouped per topic or per sub-topic where appropriate.

2. Background and general aspects

2.1. Focus on remaining points of stakeholders

BEREC received considerable input to the consultation for which it is grateful. BEREC notes that generally stakeholders seem to appreciate the overall updated Guidelines. This report focuses on the remaining points that stakeholders wanted to address following the proposed changes to the 2016 Guidelines.

At the same time, in respect of certain subjects, several groups of stakeholders maintain opposing views on the guidance BEREC gives to NRAs in the 2016 version. This applies for example to the guidance on the analysis of zero rating under Article 3(2) and on specialized services under Article 3(5). The present update of the Guidelines is not intended to rebalance the 2016 Guidelines on such subjects, instead it focuses on clarifying specific instances and incorporating experiences of NRAs in the application of the 2016 Guidelines.

2.2. Background and general aspects concerning the updating

Stakeholder responses

One stakeholder does not support the Guidelines' update because they do not see any need for this update and believe that it could create uncertainty among investors. In contrast to this, multiple stakeholders supported different proposed clarifications. Two stakeholders regret the change in the name of the Guidelines from "net neutrality" to "open internet", because they consider that "net neutrality" is the globally familiar term. In contrast to this, two stakeholders welcome the name change and updated legal references, because these changes give legal certainty.

A stakeholder expressed concerns about the lack of regulation of content. The stakeholder proposed that NRAs should increase cooperation with "other competent authorities" including National Media Regulators and that they should be included to the definition of "other competent authorities".

Given that Article 5(3) refers to the publication of the Guidelines on 30.08.2016, one stakeholder advises including a review clause in **paragraph 1** which would serve as the basis for issuing these updated Guidelines.

One stakeholder suggests BEREC should set up an independent technical advisory body. According to this stakeholder, an advisory body would improve the technical soundness of the EU regulation on Electronic Communications.

BEREC response

BEREC considered all of the responses and made changes in response to comments in approximately a quarter of the paragraphs of the Guidelines. In general, there were often several responses making competing arguments and, in BEREC's view, the final Guidelines strike an appropriate balance within what BEREC's interprets as the legal remit of the Regulation. By updating the Guidelines BEREC has acted within its mandate given in Article 5(3) of the Regulation.

Although the Regulation does not mandate cooperation between NRAs and other national competent authorities, it also does not preclude it. However BEREC does not see the need to add the definition of "National Media Regulators".

BEREC considers Article 5(3) still relevant as it gives a clear requirement to consult stakeholders and to work in close cooperation with the Commission when issuing guidelines.

BEREC believes this cooperation to be sufficient and more transparent than appointing an independent technical advisory body. The task for preparing and issuing the Guidelines cannot be transferred to an external entity.

3. Article 1 Subject matter and scope

Stakeholder responses

Some stakeholders stress the importance of qualifying in-flight Wi-Fi connectivity as a non-public electronic communications service which is exempt from the Regulation. Alternatively, three stakeholders argue that "in-flight Wi-Fi" should be considered as a specialised service (as further elaborated in section 11).

A stakeholder suggests adding "Application agnostic means that equivalent categories of traffic are treated equally" to the terminology list and believes that the "end-user" definition according to **paragraph 4** has grey areas. Two stakeholders are concerned about the use of the term "agnostic", because they believe that it goes beyond the provisions of the Regulation. Thus, they recommend deleting the term "agnostic" from all the relevant paragraphs of the Guidelines.

Regarding **paragraph 5**, a stakeholder is concerned that content provisioning can be discriminated against further back in the network thereby circumventing the Regulation. Another stakeholder asks for further clarification that CAPs are protected as end-users when they use an IAS to reach other end-users.

Another stakeholder believes that if the preservation of the "Open Internet" is the purpose of the Regulation, the Net Neutrality principle should to be valid *erga omnes.* In other words, NRAs should also respond to practices put in place by CAPs, in order to guarantee compliance with the Open Internet principles. ISPs and CAPs are not treated equally by the Regulation and CAPs must be controlled to a greater extent and should respect the Regulation. They want to underline to BEREC that even a content provider is capable of imposing limitations on end-users' (consumers but also small ISPs) right to an Open Internet by abusing its market

power to impose an ISP of its choice. In this context, they raised several questions for clarification to BEREC.

One stakeholder would expand the main and fundamental principles contained in the Regulation and consider how to apply them to the Internet ecosystem in its entirety as the big "over-the-top" players (or "CAPs", as BEREC calls them) have the market power to forcibly alter the competition and take away opportunities and wealth from the ISP and telecommunication industry. In this vein, BEREC should also enforce platform and device neutrality.

Concerning **paragraph 6**, one stakeholder would welcome regular monitoring to assess whether the risk of circumventing net neutrality rules through "interconnection" practices materialises. Another stakeholder is in favour of strengthening the wording of **paragraph 6** and would recommend national regulatory authorities (NRAs) monitor developments in interconnection markets to address potentially anti-competitive and discriminatory practices. One stakeholder proposes amending **paragraph 6** with "regard to interconnection practices by ISPs which predominantly sell connectivity to content and applications users at retail level".

BEREC response

Regarding the views expressed by some stakeholders that in-flight Wi-Fi services and other satellite supported services should either be excluded from the remit of the Regulation or, if they are to be included, should be treated as though they were specialised services, BEREC does not agree with either of these positions. BEREC believes that satellite services are to be covered by the full extent of the Regulation as they fit the definition of an IAS which is a publicly available Electronic Communications Service (ECS) which provides access to the Internet, where ECS are defined according to Article 2 of the Framework Directive[5]. This definition is also supported by the European Electronic Communication Code (EECC)[6] which itself references the BEREC definition. Moreover, Recital 2 of the Regulation states *"The measures provided for in this Regulation respect the principle of technological neutrality, that is to say they neither impose nor discriminate in favour of the use of a particular type of technology."* It is also the view of BEREC that these services typically fit the definition of IAS, because they provide access to the internet (Article 2(2) of the Regulation). The network technology used by the provider is not relevant, according to that definition. BEREC notes that according to Article 3(5) and Recital 16 specialised services may not be used to replace IAS.

Regarding the use of the term "application-agnostic" BEREC refers to the clarification made in **paragraph 34a**.

BEREC clarifies that – following from the subject matter and scope as set out in Regulation (EU) 2015/2120 - the Regulation does not apply to the activity of providing content (e.g. by CAPs) nor encompasses interconnection policies. Regarding interconnection BEREC reiterates its view already expressed in the BEREC Report on the outcome of the consultation on the evaluation of the application of Regulation (EU) 2015/2120 (BoR (18) 245, p. 22) that

[5] Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive).

[6] Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (Recast).

"[*T]he provision of interconnection [policies] is considered a distinct service from the provision of IAS*." As set out in current **paragraph 6** "*NRAs may take into account the interconnection policies and practices of ISPs in so far as they have the effect of limiting the exercise of end-user rights under Article 3(1).*".

Extending the scope of the Regulation to 'device neutrality' is not something that BEREC can decide on by updating the Guidelines, since this would require amending the Regulation by the regular EU legislative process. BEREC has, in this workstream, not looked in to this subject.

4. Article 2 Definitions

Stakeholder responses

Paragraphs 8-12 (Provider of electronic communications to the public)

Two stakeholders comment that **paragraph 10** should treat services or networks that are offered only to a pre- determined group of end-users as solely private, rather than something that "should be considered to be not publicly available". Also, "predetermined" as a terminology could lead to unintended interpretation problems. A similar argument is brought forward by some stakeholders regarding **paragraph 11**. They ask that BEREC explicitly note that enterprise services which have a pre-determined group of end-users (provided that they are not available to the general public) should be considered private ECS and excluded from the IAS related provisions of the Regulation. Another stakeholder claims that the description of VPNs as 'typically public' should be removed.

One stakeholder proposes deleting footnote 8 of **paragraph 10**. They argue that only the CJEU is the ultimate authority on the interpretation of EU legal concepts (and not the EFTA court).

Some stakeholders suggest deleting the final sentence of **paragraph 12** as customers normally pay for private networks. Some of them also recommend that **paragraph 12** should provide additional examples of services which may be classified as private. Another stakeholder prefers to stick with the explanation of publicly available services. Another stakeholder says that BEREC should clarify that internet access in cafés and restaurants are sometimes open networks provided without passwords. In such cases, they should be considered as publicly available services. Some stakeholders said that the key determinant of whether services are publicly available or not is whether it is used by a closed group of end-users and not whether they are paid for.

Paragraphs 17-18 (Internet access service)

Several stakeholders suggest amendments to **paragraph 17** because the definition and prohibition of so-called 'sub-internet' services is not addressed in the Regulation. According to one of them, if a service is offered which does not connect to virtually all parts of the internet, it does not fall within the scope of the Regulation. According to another stakeholder, NRAs should analyse if the provision of 'sub-internet' services corresponds to end-user's demand.

One stakeholder says that **paragraph 18** should not mention e-book readers, as these devices can still be used to access the internet. The same stakeholder also says it should be made clear that the Regulation does not foresee any other connectivity services beyond IAS and specialised services.

BEREC response

Paragraphs 8-12 (Provider of electronic communications to the public)

The main provisions of the Regulation apply to publicly available internet access services. Therefore, determining whether a particular service should be considered to be publicly available or not is a key factor. The BEREC guidelines are addressed to the NRAs in the EEA responsible for enforcing the Regulation, which includes the NRAs of EFTA states party to the EEA as well as the EU member states. The EFTA court decision referred to in footnote 8 of **paragraph 10** considers, amongst other things, the concept of publicly available electronic communications services. BEREC notes that this concept is indeed also used in other parts of EU law such as the European Electronic Communications Code[7] and is ultimately interpreted by the ECJ.

In response to stakeholders' comments, BEREC has added a sentence to the end of **paragraph 11** to make it clear that enterprise services having a closed group of end-users, that are not available to the general public, would not ordinarily be considered to be publicly available. BEREC has also modified the final sentence of **paragraph 12**. Rather than referring to the customer paying for the service concerned, this sentence now refers to the end-user contracting directly with the ISP specifically for the service in question.

Regarding **paragraph 12**, in some cases M2M services could be provided in private networks, for example in factories and ports. This is an alternative to provision of M2M services over IAS or as specialised services. The latter is further clarified in **paragraph 108a**.

Paragraphs 17-18 (Internet access service)

Internet Access Services are defined in the Regulation as publicly available electronic communications services that provide access to the internet, and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used (Article 2(1)). The Regulation also recognises the need for 'services other than internet access services' to be provided. Such services, referred to in the Guidelines as specialised services, may be provided where they meet the requirements set out in Article 3(5) of the Regulation.

As noted in BEREC's 2016 consultation report[8] (page 9), whilst the term "sub-internet services" **(paragraph 17)** is not used in the Regulation, the concept behind it is. Providers of

[7] Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (Recast)

[8] BEREC Report on the outcome of the public consultation on draft BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality rules, BoR (16) 128: https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/6161-berec-report-on-the-outcome-of-the-public-consultation-on-draft-berec-guidelines-on-the-implementation-by-national-regulators-of-european-net-neutrality-rules

IAS should not restrict connectivity to any accessible end-points of the internet. Consistent with this, an ISP that enables access to only a pre-defined part of the internet would be infringing the Regulation.

5. Article 3 Safeguarding of open internet access

In this report the interrelation between the subparagraphs of Article 3 is addressed under the section on Article 3(2) which refers to **paragraph 37**.

6. Article 3(1) end-users' rights

Stakeholder responses

One stakeholder comments and gives suggestions related to free choice of equipment by end-users and non-discrimination of equipment manufactures in **paragraphs 25, 26 and 27**. Another stakeholder says that it is problematic that ISPs provide both the equipment and the endpoint-based service anchored in such equipment while, at the same time, disabling competing CAPs' services hosted on the local network.

BEREC response

Regarding the comment on **paragraphs 25, 26 and 27**, BEREC believes that it would be too detailed for these Guidelines to cover this topic further. The general principles set out in the paragraphs should be sufficient.

In general, to further clarify, BEREC reiterates its view already expressed in the guidelines on common approaches to the identification of the network termination point in different network topologies[9].

7. Article 3(2) agreements

7.1. Agreements on commercial and technical conditions

Stakeholder responses

Paragraph 32

A stakeholder advocates for a wider range of consent (having the focus on the customer consent), whereas another stakeholder questions if the Regulation and the Guidelines are

[9] BEREC Guidelines on Common Approaches to the Identification of the Network Termination Point in different Network Topologies, BoR (20) 46: https://berec.europa.eu/eng/document_register/subject_matter/berec/regulatory_best_practices/guidelines/9033-berec-guidelines-on-common-approaches-to-the-identification-of-the-network-termination-point-in-different-network-topologies

applicable in cases where the end-users choose to block certain content or specific applications.

Paragraphs 32a-32b

A few stakeholders ask for the removal of both paragraphs, as they are (i) misleading; (ii) in conflict with Article 3(3) of the Regulation; (iii) covering aspects beyond the network termination point and discriminating against ISPs in comparison to CAPs; (iv) constituting a breach of the neutral technology principle. Other comments suggest changing both paragraphs since (i) they are not aligned with the section "user control network blocking" of the EC implementation report and the focus should be on end-user control; (ii) BEREC's approach is too detailed when it comes to blocking and filtering.

Paragraph 32a

Several stakeholders ask for clarifications and propose modifications to **paragraph 32a**:

- any additional consideration leads to an unjustified different treatment of ISPs compared to third parties and should be deleted;
- the assessment of parental control should be technology neutral and not discriminate between the parties delivering services over IAS;
- to capture the DNS resolution services provided by ISPs or to delete the word "secondary" in front of "DNS resolvers";
- suggestions related to free choice of equipment by end-users and non-discrimination of equipment manufacturers;
- to add, for clarification purposes, a reference to **paragraph 78a** (if kept).

Paragraph 32b

BEREC received a few proposals for clarifying **paragraph 32b**. There is also a suggestion for altering the sequence of sub-points one and two, as one stakeholder believes that there is no need for the NRA to assess whether an IAS is application-agnostic, if it is the end-users 'choice to block specific content or applications.

One stakeholder suggests modifying **paragraph 32b** because the assessment should focus on whether or not the client remains in control of the IAS. Furthermore, this stakeholder stresses that the assessment made by any NRA should not result in a discrimination between ISPs and other parties delivering similar or equal services over IAS.

Another stakeholder welcomes the clarification provided about offering additional end point-based services, but suggests deleting **paragraph 32b** as in their view, all additional end point-based services should be considered out of scope of the Regulation.

One stakeholder points out the need for network integrity assurance and understands that, according to the first bullet point of **paragraph 32b**, it seems that ISPs cannot charge a price for an add-on end-point based service.

BEREC response

Regarding the different comments about end-user consent, there is no provision in the Regulation that allows the ISP to, for example, block traffic in the network based on end-user consent (see also BEREC response to **paragraph 55**). Specific exceptions are only provided in Article 3(3) letters (a) – (c), and end-user consent is not among those.

Regarding the comments about undue regulation of ISPs compared to CAPs, BEREC does not agree that this is the case with **paragraphs 32a and b**. The option to provide end point-based functions is the same for ISPs and CAPs. As a response to one of the comments, BEREC wants to clarify that these end point-based services can be offered with a price. The assessment of the provision of the IAS is related to ISPs, including any circumvention of the Regulation, as provided by the Regulation.

Regarding the comments about technology neutrality, the distinction between end point-based functions and network internal functions, is not based on the technology used in these two places. The distinction is based on the scope of the Regulation, independent of the technology used. The Regulation applies to the ISP providing the IAS and not to the end users control over the end points.

7.2. Shall not limit the exercise of end-users' rights

Stakeholder responses

Paragraphs 34a-c

Many stakeholders welcome the clarification in **paragraphs 34a and 34c** that different IAS offers based on different QoS levels are allowed.

One stakeholder supports the proposed language addressing offerings of different QoS levels. However, in their view, different QoS parameters other than bitrate are unlikely to benefit all applications equally. Furthermore, this stakeholder notes that providing a guaranteed level of service for some parameters may require reconfiguring a service for a particular (class of) application(s). This stakeholder suggests an assessment framework similar to that used for zero rating if BEREC finds evidence of the need for CAPs to reconfigure their products to be compatible with an ISP's QoS-based offerings.

Another stakeholder points out that **paragraph 34a** can be contradictory with **paragraph 34c** in the sense that **paragraph 34c** is referring to the full control of end-users.

Paragraph 34c

Some stakeholders suggest modifying **paragraph 34c**, because they consider the formulation of **paragraph 34c** as unjustified in the sense that the Regulation does not prioritise among sub-articles of Article 3. Moreover, they do not agree with the concept of "full control over which applications transmit traffic over which traffic level" for end-users introduced in **paragraph 34c** as that harms the commercial freedom needs for ISPs and it seems to imply that ISPs cannot pre-set any parameters and may be unfeasible. Another stakeholder also states that ISPs should be allowed to predefine QoS levels for specific applications and that

the end-users may modify this pre-selection. In contrast to this, a stakeholder proposes strengthening the language in **paragraph 34c** since the assessment of the user control is essential. One stakeholder also stresses that the aim of this paragraph should be to guarantee the users' informed choice.

One stakeholder welcomes the proposal in **paragraph 34c**, however it stresses that BEREC should not go beyond the proposed principles for QoS implementation since they represent a sufficient safeguard.

Two stakeholders agree with the general proposal in **paragraph 34c**, but they mention that the second part of the paragraph could be seen as out of the scope of the Regulation and proposes new competencies to NRAs in retail markets. In the same vein, a stakeholder thinks that the current Guidelines give too much room to NRAs and therefore advocates for a harmonised assessment procedure for IAS offers at a European level. The same stakeholder is also worried about the minimum QoS requirements and is in favour of the EC proposing these QoS requirements thus allowing for a European-wide approach.

BEREC response

BEREC notes that there seems to be major support for the draft amendments to **paragraphs 34a-c**, but that some further clarifications were needed. In particular, the distinction between the different QoS options in the Regulation should be further clarified. There was also some misunderstanding regarding the term "application-agnostic", therefore this term has been further clarified.

Regarding the comment about the opportunity for blocking malicious actions, this is already covered under the exception in Article 3(3) (b), see **paragraphs 83 and further**.

Regarding the comments about the potential unequal benefit of different speeds for different applications and reconfiguring of service for particular applications, since the selection of QoS level is controlled by the end-user, there is no need for the network configuration to presume that particular applications are using any particular QoS levels. Regarding the comment about an assessment of CAPs' need to configure their products, these are aspects related to the end point-based functions and are therefore out of scope of the Regulation.

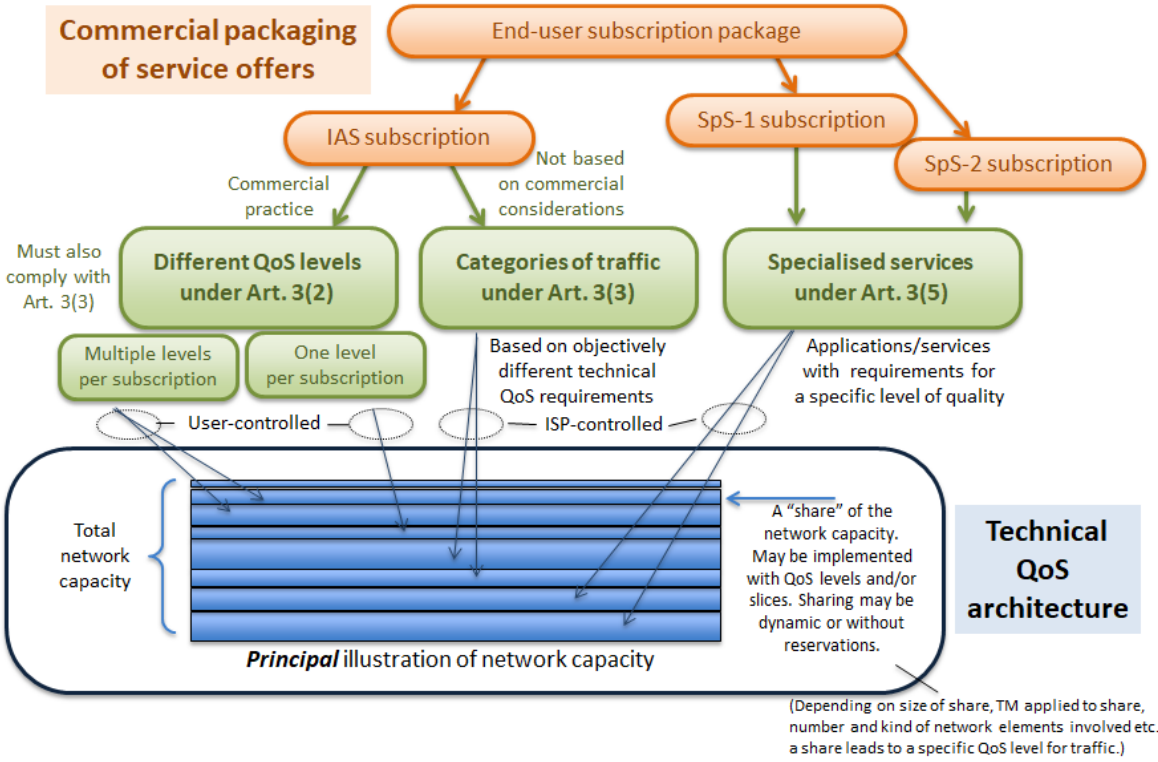
Regarding the comments about potential contradiction between **paragraphs 34a and 34c**, BEREC has revised the text to further clarify how the different options for QoS under Article 3(2) and Article 3(3) are distinguished from each other.

Some comments from ISPs argued about the need for ISP-control in **paragraph 34c**. However, this seems to build on a misunderstanding where "categories of traffic" under Article 3(3) was not distinguished from the "QoS levels" under Article 3(2). BEREC has amended the text of **paragraphs 34a-c** to further clarify these aspects.

Regarding the comments arguing that BEREC should not go beyond the Regulation in **paragraph 34c**, this is not the case, since Article 3(3) requires the IAS to be provided independent of applications.

To further clarify the understanding of **paragraphs 34a-c**, and to also clarify how these paragraphs describing QoS levels provided under Article 3(2) relate to categories of traffic

provided under Article 3(3) and specialised services provided under Article 3(5), BEREC provides this abstract illustration of QoS options under the Regulation:



BEREC underscores that the intention of this overview is not to prescribe how ISPs should commercialise and manage their service offers, it is only intended to give an overview of the options that are available under the Regulation.

The figure illustrates that the commercial packaging of service offers can consist of subscriptions of an internet access service (IAS) supplemented with one or more specialised service (SpS). Regarding the IAS subscription, this may be provided in different ways based on QoS levels under Article 3(2) or categories of traffic under Article 3(3), or possibly a combination of the two. Regarding the QoS levels, there may be one or multiple levels per IAS subscription.

Provision of QoS levels under Article 3(2) is a commercial practice, and this also has to comply with Article 3(3). In particular, the QoS levels have to be application-agnostic. As the Regulation describes regarding the provision of categories of traffic under Article 3(3), this cannot be based on commercial considerations.

As illustrated in the figure above, the QoS levels under Article 3(2) are user-controlled, and this is further explained in the Guidelines **paragraphs 34a-c**. In case an ISP implements such QoS levels, they are provided according to the QoS parameters agreed in the contract with the end-user, but the end-user is in full control of selecting which application uses which QoS level.

On the other hand, the provision of categories of traffic under Article 3(3) and the provision of specialised services under Article 3(5), are both ISP-controlled. Regarding categories of traffic, as Article 3(2) explains, where an ISP implements these, they must be based on

objectively different technical QoS requirements. Regarding specialised services, as Article 3(5) explains, they are provided if this is objectively necessary in order to meet requirements for a specific level of quality.

Regarding how the different QoS options in Articles 3(2), 3(3) and 3(5) are implemented in the technical QoS architecture of the ISP's network, this is for the ISP to decide, as long as it complies with the requirements of the Regulation. For illustrative purposes, the figure shows an abstract illustration of how the total network capacity is shared between the different traffic flows.

The figure is intentionally oversimplified, leaving it to ISPs to decide on the technical implementation. The network capacity is typically dynamically shared between traffic flows and varies depending on their need. Different technologies exist to implement this, and new technologies will come to the market in the future. QoS levels, virtualisation and network slices could be examples of QoS architectural methods for this purpose.

Stakeholder responses

Paragraphs 35-38

Some stakeholders suggest adding more examples of commercial practices in **paragraph 35**. More precisely, users should keep accessibility to basic services when they are running out of data or they should get access to zero-rated offers for a reasonable "grace period" after having reached their data cap. One stakeholder recommends changing **paragraph 39** because Article 3(1) does not allow commercial practices which involve differentiated pricing.

Different stakeholders expressed opposing views regarding **paragraph 37**. Some of them explicitly supported **paragraph 37** as well as the clarifications proposed by BEREC. As expressed by one of these stakeholders the clarification in **paragraph 37** makes it clear that Articles 3(1) and 3(3) cannot be bypassed. Another stakeholder stated that it has now been clarified that *"[n]either the rights as set out in Article 3(1) nor the requirements of Article 3(3) can be waived by an agreement or commercial practice otherwise authorised under Article 3(2)"*.

Other stakeholders criticised or requested deletion of **paragraph 37.** Points of criticism were for example that "BEREC gives unjustified priority to Article 3(3) over Article 3(2) while these are parallel rights on commercial agreements and on traffic management". Furthermore, **paragraph 37** "would contradict the European Commission's demand by forbidding in-network security". Critical views also referred to the ongoing case before the ECJ,[10] therefore, BEREC should at least refrain from statements on the relationship between the paragraphs of Article 3.

BEREC response

Regarding the suggestion to add a list of examples of commercial practices in **paragraph 35**, BEREC reminds the stakeholders that existing annual national reports provide an overview of

[10] C-807/18 - Telenor Magyarország and C-39/19 - Telenor Magyarország.

national cases of commercial practices, and NRAs' analyses regarding compliance with the Regulation thereof.

Regarding **paragraph 35**, BEREC does not agree with the proposal of a "grace period". Allowing a set of basic services, which would be accessed by end-users when the data cap is reached and all other traffic is blocked would be in conflict with the Regulation, unless the conditions of one of the exceptions are met.

BEREC has retained **paragraph 37** including the clarifications made. **Paragraph 37** reflects that the principle of equal treatment enshrined in Article 3(3) first subparagraph applies to all traffic. Thus, BEREC has clarified that Article 3(2) neither overrules the provisions of Article 3(3) – i.e. end-user consent does not justify a practice otherwise forbidden under Article 3(3) – nor override end-users' rights according to Article 3(1). Furthermore, **paragraph 37** reflects regulatory practice of NRAs (e.g. in Hungary, Germany and Romania). BEREC is aware of the decision to be made by the ECJ.

Moreover, regarding the comments about end-users' consent as an exception, there is no provision in the Regulation that allows ISPs to block access to certain end-points based on end-user consent as this is not a listed exception under Article 3(3).

Regarding **paragraph 39**, BEREC does not consider that commercial practices, which involve differentiated pricing, are *per se* in contradiction with the Regulation. Therefore, these practices could influence end-users' exercising their rights, without necessarily limiting these rights. This requires assessment on a case-by-case basis.

7.3. Zero-rating and similar offers

Stakeholder responses

Zero-rating in general

One stakeholder defends the zero-rating practice as a way to satisfy customer needs if all stakeholders comply with open internet principles. In contrast to this, one stakeholder advocates a prohibition of all zero-rating practices, as it considers that the practice of zero-rating only benefits the dominant operators by limiting the consumer's choice. Other stakeholders state that commercial practices, and zero-rating in particular, should be prohibited because they would violate Article 3(1), Article 3(3) first subparagraph and Recitals 3 and 4 of the Regulation. In the same vein, one stakeholder thinks that the current zero-rating practices could even hamper the development of innovative services (incentive for dominant network operators to prefer bundle agreements with established online platforms) and BEREC should ensure that zero-rating offers do not distort the market (allowing small cloud hosting providers to join and not discriminating against self-hosted services). A stakeholder supports BEREC's approach vis-à-vis zero-rating and recommends BEREC assesses whether a zero-rating practice can be replicated by operators that do not own networks and therefore require connectivity.

One stakeholder identifies some problems with allowing zero-rating and suggests that BEREC strengthen the Guidelines by considering the following points: (i) the concept of an open

category is problematic as it is difficult to make clear definitions of a category of content online; (ii) an incentive to use zero-rated content detracts from the amount of time available to other content; and (iii) adverse effects on media pluralism should be given serious consideration.

One stakeholder advocates for a less detailed text about zero-rating offers in order to give more flexibility to NRAs to implement the Guidelines.

Another stakeholder proposes that BEREC provide certainty for IAS providers and CAPs investing in new services. It would help if the guidelines confirmed that (i) no ex-ante authorisation is required for commercial offers; (ii) if there is a negative assessment by the NRA, the ISP should be permitted to modify the offer within a reasonable time; and (iii) an NRA should not re-examine any offers it has given a positive assessment for at least two years.

Paragraphs 40-41

Several stakeholders suggest modifying **paragraph 40**. Some of them suggest using the more generalised term “differentiated pricing practices” instead of zero-rating, to cover the different variants of pricing practices. For the same reason, another stakeholder proposes changing the references to “price of zero” in the definition of zero-rating. One stakeholder argues that in cases where a fee is paid for a limited amount of data provided, this should not be regarded as zero-rating, but as a data bundle. Another stakeholder is concerned about the *de facto* introduction and implicit approval of additional mechanisms that further limit end-user choice (especially so-called "sponsored data"), by way of an example in **paragraph 40**. Other stakeholders disagree with BEREC’s conclusion that “sponsored data” should be treated the same way as a zero-rating offer.

Considering the guidance provided in the Annex, a stakeholder suggests deleting **paragraph 41**. Another stakeholder suggests stating that Article 3(3) first subparagraph is not infringed if the end-user has the option to restart the general purpose data at any time.

Some stakeholders have taken the position that the blocking of internet access to all applications except the zero-rated application once the end-user exceeds the data cap does not infringe on Article 3(3), and therefore argue that examples referring to such practices should be amended.

Paragraphs 42-42e

Several stakeholders were critical of **paragraphs 42a-e**. In particular, several stakeholders recommend BEREC delete **paragraphs 42a-e**. The main arguments are: (i) the additional guidelines go beyond the scope of the Regulation and are overlapping with the annex; (ii) there is no need for more detailed regulation; (iii) the guidance is *de facto* retail regulation and is therefore lacking a valid legal basis; (iv) there should be no control of commercial conditions offered to CAPs; and (v) zero-rating of a specific application is not necessarily problematic. Suggesting that all CAPs should be able to join zero-rating programmes under the same technical and commercial conditions ignores both technical and commercial realities. More generally a stakeholder claims that BEREC restates absolute prohibitions of certain zero-rated offers without any assessment on their impact on competition and calls for thresholds allowing ISPs and CAPs to self-assess compliance with the Regulation and guidelines. More

specifically regarding open programmes **(paragraph 42),** a stakeholder claims that these would lead to higher costs for ISPs**.**

One stakeholder argues that the requirement for fair, reasonable and non-discriminatory access regulation on zero-rating practices would imply that a market analysis procedure as set out in Article 67 of the EECC is conditional. The terms “fair and reasonable” are also perceived to be unclear and could therefore be removed, the terms “transparent and non-discriminatory" are considered to be sufficient to preserve end-user rights. Some stakeholders even recommend the deletion of “fair and reasonable and non-discriminatory".

There is a proposal to replace **paragraphs 42a-e** with the annex, which should become an integral part of the Guidelines. One stakeholder even promotes the explicit ban of all zero-rating offers.

Further change requests consist of

- removing the provisions starting “BEREC considers”;
- removing the term “best practice”;
- duly considering content integrity of (streamed) audio and video content when distinguishing between actual content and advertisements and respecting the dependence on advertising of some content providers;
- amending **paragraph 42c**, considering the relevance of the transparency criteria (well-informed consumers or CAPs). Additionally, one stakeholder considers that **paragraph 42c** should be dropped or be amended, by referring to transparency and especially **paragraph 59**;
- amend **paragraph 42e**, with regard to the fee for joining a zero-rating programme. In particular, the proposed changes suggest (i) a case-by-case assessment rather than suggesting that a fee for joining an open zero-rating program is unreasonable; (ii) further clarification on what grounds a fee can be assessed as unreasonable;
- provide examples of specific zero-rating practices that are permitted or prohibited.

In contrast to these views, several other stakeholders welcome the addition of **paragraphs 42a-42e** to the Guidelines. Some ask for clarification about "what does not constitute a permissible program" or ask BEREC to strengthen the language of **paragraph 42b** by drawing a red line under the circumstances in which open programmes do not meet these criteria and should therefore be considered to be in contravention of the Regulation or by suggesting adding a requirement in **paragraph 42d** for ISPs to respond to CAPs within a reasonable timeframe. One stakeholder stresses that closed offers could reduce end-users rights in practice by hand-picking participating applications. Another stakeholder stresses the impact of closed zero-rating programmes on end-user choice.

Paragraphs 46-48

One stakeholder recommends amendments to **paragraphs 46 to 48** to clarify that NRAs should take a comprehensive and holistic assessment of both the positive and negative aspects of the commercial practice(s).

Another stakeholder indicates that the existence of specific end-user demands having an impact on their rights granted by Article 3(1) of the Regulation must be included in **paragraph 46**.

A stakeholder would like to include an exception in the **paragraph 47** if the end-user demands the material reduction of their choice. Another stakeholder calls for change or even removal of **paragraph 47** to promote a holistic approach rather than prohibitions based on a one-dimensional analysis.

A stakeholder welcomes the fifth bullet point of **paragraph 48** about open zero-rating programmes, but at the same time would like even more guidance on concrete regulatory measures.

Another stakeholder suggests modifying **paragraph 48** to align it with the Annex and emphasises the importance of assessments being done on a case-by-case basis. In the same vein, a stakeholder believes that NRAs' interventions should be limited only to commercial practices actually harming end-users and refers to EU competition law as existing regulatory practices' source. On the contrary, another stakeholder notes that Recital 7 of the Regulation says very clearly that national regulators can intervene against agreements or commercial practices only if end-users' choice is materially reduced in practice.

Several stakeholders consider that the last bullet point of **paragraph 48** goes beyond the scope of the Regulation and imposes new regulation on the retail market for which NRAs now do not have legal competence. A stakeholder argues that long term effects of commercial practices are relevant to the assessment.

BEREC response

Many stakeholders commented on the paragraphs relating to zero-rating. BEREC notes that, in general, zero-rating is not forbidden under the Regulation. Whether it is allowed in a specific case requires an assessment of that case.

With regard to comments concerning **paragraph 40**, BEREC finds it inappropriate to replace the term zero-rating throughout the Guidelines. Additionally, BEREC believes that using "a price of zero" as the main element in the definition of zero-rating in **paragraph 40** is not appropriate, as also other commercial practices similar to zero-rating are to be analysed under the same criteria of the Guidelines as zero-rating. This was clarified in **paragraph 40.** These other practices similar to zero-rating also have the potential to limit end-user rights.

For the same reasons as provided in the discussion on **paragraph 37** above, BEREC is of the opinion that **paragraph 41** should not be modified.

By adding subparagraphs to **paragraph 42**, BEREC seeks to provide more clarity for all market players by reflecting the relevance of zero-rating in regulatory practice while at the

same time not anticipating the outcome of a comprehensive case-by-case assessment. Therefore, BEREC added guidance in particular on open programmes in **paragraphs 42b-e** because of the experience of several NRAs that have already had cases in which this was relevant, and feedback received in exchanges with stakeholders. BEREC does not consider that **paragraphs 42a-e** go beyond the Regulation nor impose the regulation of retail offerings. BEREC neither states that open programmes are permissible *per se* nor that programmes that are not open are forbidden *per se*. Instead, it clarifies that open zero-rating programmes are less likely to restrict end-user choice or undermine innovation on the internet than programmes that are not open. The same reasoning applies to the clarification made in **paragraph 42a**.

On the topic of transparency towards end-users, BEREC sees a requirement to provide further guidance. Clarity and transparency towards end-users on the status of certain types of content in a zero-rating programme, e.g. advertising, are essential to enable end-users to make informed choices. Therefore, the assessment of (potential) transparency issues are subject to the NRA's review of zero-rating offers. To reflect this, BEREC moved the notion of transparency when assessing zero-rating offers from **paragraph 42c** to **paragraphs 48 and 138**.

Regarding the comments about the last bullet point of **paragraph 48**, BEREC does not agree that assessing potential effects of commercial practices is going beyond the scope of the Regulation. By following an economic reasoning, potential effects of commercial practices on end-users' choices are not merely a possibility, but a certain material risk. Thus, assessing potential effects of commercial practices based on economic fundamental law could reveal situations where end-users' choice is materially reduced in the future. To assess these potential effects, NRAs could use competition case law to determine how potential effects of commercial practices materially affect competition. Therefore, NRAs will be able to assess potential effects of commercial practices because there is a certain risk, and not just a possibility, that these practices affect end-users' rights.

8. Article 3(3) first subparagraph: equal treatment of traffic

Stakeholder responses

One stakeholder warns about the difficult of treating all the packets equally. Another stakeholder says that NRA should react and decide only in case of proven service detriment to the end-users which is the basis of the Regulation. Another stakeholder recommends aligning the Guidelines with the text of the Regulation (referring to equal and non-discriminatory treatment of traffic).

One stakeholder suggests amendments to **paragraph 49** because BEREC asserts that, typically, contraventions of the traffic management provisions also constitute infringements of end-user rights.

One stakeholder says that **paragraph 50** leads to what can be seen in Germany with Deutsche Telekom where Deutsche Telekom is limiting their interconnection capacity to other Tier1 ISPs artificially by not adhering to the general practice of "each side pays their share" Zero Settlement when the interconnection is saturated and upgrades are needed.

Some stakeholders suggest amendments to **paragraph 53** because they are of the view that the Guidelines are too restrictive on this point of equal treatment in their interpretation of the Regulation in relation to operators' ability to manage network traffic.

One stakeholder suggests amendments to **paragraph 55** because the Regulation does not mention agreements. Others propose amendments to **paragraph 55** because it restricts *per se* the ability of providers to offer certain types of plans to consumers and businesses that enhance their choice without a case by case analysis, such as for instance parental control or data caps. One stakeholder proposes to include an exception in the **paragraph 55** if an end-user demands special treatment of the traffic.

One stakeholder suggests amendments to **paragraph 56** since according to this guideline all IAS offers should be subject to a "comprehensive assessment" of their compatibility with the traffic management provisions.

BEREC response

Regarding the different comments about the difficulty in treating packets equally **(paragraph 53)**, proven detriment to end-users, alignment with text of Regulation and contraventions of the traffic management provisions, BEREC considers that the guidance provided in these paragraphs is related to Article 3(3) first subparagraph, and to get the full picture one has to also take the rest of the guidelines into account. Regarding the comments on **paragraph 53**, BEREC considers that the text already provides clarification that the term "treat traffic equally" does not prevent that packets can experience varying transmission performance.

Regarding the comment on **paragraph 50**, BEREC considers that interconnection as such is not regulated under the Regulation (see above Chapter 2), yet as stated in **paragraph 6** NRAs may take into account the interconnection policies and practices of ISPs in so far as they have the effect of limiting the exercise of end-user rights under Article 3(1).

Regarding the comments on **paragraph 55**, BEREC considers this to be fully in line with the Regulation and sees no need to amend the text. In particular, the Regulation does not allow for blocking of traffic in the network based on user consent (see also BEREC response to **paragraph 32**). Regarding the comment on **paragraph 56**, this text simply explains that in cases that are not as clear as the examples given in the **paragraph 55**, a comprehensive assessment of compatibility with the Regulation should be applied.

9. Article 3(3) second subparagraph: reasonable traffic management

Stakeholder responses

One stakeholder states that in order to guarantee different QoS requirements, the ISP must apply some traffic management.

Paragraph 57 (Traffic management measures)

One stakeholder suggests modifying **paragraph 57** to clarify that the provision of IAS with different QoS complying with Article 3(2) shall also be deemed to be complying with equal treatment provided in Article 3(3).

Paragraphs 58-61 (Transparent, non-discriminatory and proportionate)

One stakeholder argues that **paragraph 59** needs to be clarified further with regard to transparency and to specify what information ISPs are required to publish.

Several stakeholders propose amendments to **paragraph 61**:

- by including a non-exhaustive list of items that address the proportionality principle;
- by considering the networks' traffic management from technical, commercial, demand and network configuration perspectives;
- by taking into account of the end-user's demand for a differential treatment of different traffic categories of traffic;
- by removing the parts related to "requirement of evidence" given a high and burdensome level of proof, especially as there may always be commercially unviable alternatives.

Paragraphs 62-67 (Objectively different technical QoS requirements of traffic categories)

Some stakeholders propose amendments to **paragraph 66**, because they understand that the efficient use of network resources is the objective of traffic management, as recognised by the Regulation. Consequently, they point out that the Guidelines should not set *a priori* limits on what can be considered as reasonable or not, as this is not done in the Regulation itself and is not the function of the Guidelines.

Paragraphs 68 (Not based on commercial considerations)

Several stakeholders asks for an exception of the prohibition of traffic management measures based on commercial grounds if the end-user explicitly demands it and suggest to amend the **paragraph 68** accordingly. They justify the proposed amendments based on their reading of the Regulation: while the Regulation prohibits commercial discrimination of traffic management between applications and services within an IAS offer, it explicitly supports segmentation of IAS offers proposed to end-users and therefore segmentation between end-users, which should be acknowledged by the Guidelines. Furthermore, one stakeholder proposes changing **paragraph 68** by arguing that ISPs should be allowed to charge for the network resources they provide, varying based on the QoS requirements.

BEREC response

BEREC notes that several of the comments given related to Article 3(3) third subparagraph are already answered in this consultation report in relation to Article 3(2), as these comments presuppose that a contract or end user consent can set aside the provision of article 3(3). This is not the case. BEREC refers the reader to the above overview of QoS options under the

Regulation for further information on such issues (in particular on BEREC responses to **paragraphs 32** and **34**).

Regarding the comment about transparency in **paragraph 57**, this is already handled by the transparency guidance provided later in the report related to Article 4. Regarding the comment about proportionality in **paragraph 60**, BEREC considers the current version to strike a good balance. Some of the comments received were answered in the 2016 consultation report.

Regarding the comment about IAS offers with different QoS on **paragraph 57** BEREC notes that the implementation of different levels of QoS according to **paragraph 34** may involve the application of traffic management measures.

Regarding the comment on **paragraph 59**, BEREC considers that the current wording is sufficient.

Stakeholder responses

Paragraphs 71-73 (Shall not be maintained longer than necessary)

According to one stakeholder, **paragraphs 71-73** are not needed since they do not add clarity to the text of the Regulation.

Referring to the principle that “measures shall not be maintained longer than necessary”, a stakeholder emphasises the importance of BEREC specifying such time limits or of NRAs providing at least an indication about time limits for a measure. For **paragraph 71** (idem for paragraphs 76 and 81), one stakeholder proposes to exempt the traffic management measures demanded by end-users from the application of this article.

Several stakeholders welcome the amendment to **paragraph 73** on traffic management functions implemented on a permanent basis. However, two of them ask for an assessment to be done in the event that negative outcomes occur from the end-user perspective. One stakeholder even recommends only assessing when traffic management measures are having an impact, with those resulting in a negative impact being prohibited, and amending **paragraph 73** accordingly. One stakeholder suggests amending **paragraph 73** since they consider that some network slices will need to be in place on a permanent basis, whereas another one proposes a clarification to **paragraph 73**.

Paragraph 74 (Distinction from exceptional traffic management measures)

One stakeholder proposes modifying **paragraph 74** because a discrimination between specific content, applications or services or specific categories thereof should not be prohibited *per se* and contribute to the development of the market.

BEREC response

Regarding the comment on **paragraph 71**, BEREC considers that the current wording provides an appropriate level of detail. Furthermore, user consent is not a justification for network-based measures. Regarding the comment on **paragraph 73**, BEREC believes that the paragraph provides sufficient clarification regarding measures provided on a permanent

basis. Concerning **paragraph 74** BEREC notes that the text of Article 3(3) third paragraph clearly indicates that, set aside the three listed exceptions, it does hold a *per se* prohibition.

10. Article 3(3) third subparagraph: beyond reasonable traffic management

Stakeholder responses

One stakeholder stresses that the traffic management practices outlined in **paragraph 77** should be applied without exception by each NRA and thus it suggests amendments to specify this more precisely. In contrast to this, another stakeholder proposes amendments to **paragraph 77** since, in their view, there will be instances when the end-user consents to or requests differential treatment of different categories of traffic. The same stakeholder considers that such 'agreements' should not be prohibited on a *per se* basis.

Regarding **paragraph 77a**, a stakeholder requests inclusion of specific examples about BEREC's understanding of "lossless compression". Another stakeholder considers that the wording of **paragraph 77a** is too strict and therefore recommends softening it in a way that allows for some compression techniques of adaptive bitrate coding being permissible in the case where the end-user's perception is not significantly affected, taking into account their demands. Two stakeholders recommend modifications to **paragraph 77a** to address the fact that video providers adapt their videos to the bandwidth available using Adaptive Bitrate technology. Another stakeholder does not support the ban of the application specific throttling by ISPs and considers that BEREC's interpretation goes beyond the scope of the Regulation.

One stakeholder suggests amending **paragraph 78**, because there is a need to clarify the description of practices which happen "in the network", as well as to include an explanation of the terms "endpoints" and "endpoint-based services". Another one also proposes amendments to **paragraph 78** since there will be instances where the end-user consents to or requests differential treatment of different categories of traffic *(same comment as for paragraph 77)*.

One stakeholder wants to clarify that the "processing of application layer protocol elements takes place before the IP packets have been received at the destination IP address provided by the end-user computer" is only one example of measures applied to the IP packet in the network.

Several stakeholders claim that **paragraphs 78-78b** do not provide clarity and even consider that the processing of application layer protocol elements and the ex-ante approval an ISP's network management measures are not within the scope of the Regulation. In addition, one of them considers that the guidelines must avoid liability of ISP if it has not full control over certain feature of its IAS. Therefore, some of the stakeholders stress that any references to specific technologies should be removed and another one proposes modifying **paragraph 78b** because neither DNS nor proxies should be considered part of the IAS. Several stakeholders recommend that BEREC delete the part of **paragraph 78b** starting with "however". Moreover, a stakeholder suggests including a reference in **paragraph 32a** to **paragraph 78b**.

A stakeholder provides proposals to amend **paragraph 78a** by emphasising the free choice of equipment by end-users and non-discrimination of equipment manufacturers. Although a stakeholder agrees that DNS resolution provided by an ISP needs to be assessed under the Regulation, it asks that BEREC restructure the guidance for doing this assessment under Article 3(2), as in their view DNS should be considered as an end point-based service. Further modifications proposed to **paragraph 78a** refer, on the one hand, to a deletion of the term "secondary" in front of "DNS resolvers", as the distinction between "primary" and "secondary" is deemed to be technically inapplicable, and on the other hand, to a deletion of the whole paragraph because neither DNS nor proxies should be considered part of the IAS.

BEREC response

Regarding the comment to apply **paragraph 77** without exception, BEREC notes that the Regulation provides for a limited list of three possible exceptions which are subject to a strict interpretation (see consideration 11 of the Regulation). Regarding the comment about end-user consent, this is not a justification to apply network-internal measures under the Regulation.

Regarding the suggestion to provide specific examples of lossless compression, BEREC believes this concept to be clear already. Regarding the comment about application specific throttling, this is banned under Article 3(3). Regarding the suggestion to soften the wording of **paragraph 77a**, BEREC believes the current wording strikes an appropriate balance.

Regarding the comment about video providers adapting their video bandwidth, this is not restricted by the Regulation since it is done by the CAP at the endpoint and since the Regulation does not apply to providing content or application services. Contrary to that, ISPs are not permitted to use application specific throttling of the IAS, which has the effect that the video traffic is submitted using the quality corresponding to the respective bandwidth (adaptive bitrate) as this is not treating all traffic equally and restricting the traffic because of the content access or distributed.

Paragraphs 78-78b received mixed comments, and many of these also relate to **paragraphs 34a-c**. Therefore, readers are recommended to also read the BEREC response related to 34a-c when reading the response below related to **78-78b**.

Based on the different comments received regarding **paragraphs 78-78b**, BEREC sees a need to further clarify these paragraphs and has updated the text the following way:

- **Paragraph 78** is slightly modified, turning the paragraph into a definition;
- The definition refers to **paragraph 78b** as well as **32a**;
- Added a footnote regarding network address translation (NAT);
- **Paragraph 78a** now refers to "default resolver" instead of "primary resolver";
- Clarified reason to exempt default resolver from ordinary applications: "automatically installed when the connection is activated";
- Added footnote about automatic configuration by e.g. DHCP;

- **Paragraph 78b** now explains the access router role in the out-of-scope case, aligning with the access router description in **78a** (in-scope case);
- Split **paragraph 78b** in two, **78b** plus **78c**, and in **paragraph 78c** refer to “additional resolver” instead of “secondary resolver”.

10.1. Article 3(3) (b) preserving the integrity of the network

Stakeholder responses

One stakeholder would like to add two new bullet points to **paragraph 83**, namely, “distribution of bots and establishment of botnet command & control servers” and “establishment of phishing websites or other websites hosting content that can harm the network and/or its users”.

One stakeholder suggested amendments to **paragraph 84** because this description should be left open as BEREC does not know what future measures operators might or might not have to take to preserve the integrity and security of their networks, including, perhaps, measures other than restricting connectivity or blocking of traffic to and from specific endpoints. Another one would like to add the words “or domain names” to the fourth bullet point after “blocking of IP addresses” and in the fifth bullet point after “blocking of specific port numbers” the words “or domain names”.

BEREC response

Regarding the comments on **paragraph 83**, BEREC believes that the text already covers these aspects. The intention is to present security threats that trigger ISP’s actions in a generic way rather than providing a detailed list of possible threat scenarios. Therefore, BEREC has chosen to not amend the bullet points.

Regarding the comments on **paragraph 84**, BEREC considers that the text is sufficiently open since it refers to typical examples, and therefore other actions are by no means excluded. Regarding the suggestion to also refer to blocking of domain names, this is not straightforward for ISPs to do, and in practice domain names are simply not resolved to their respective IP addresses, therefore BEREC has chosen not to go into a detailed description of such measures in the guidelines.

10.2. Article 3(3) (c) preventing impending network congestion

Stakeholder responses

One stakeholder suggested modifying **paragraph 91** because in the case of traffic congestion during emergencies, there are some services that although they do not fall within the classification of emergency blue light services, should have differential treatment in order to guarantee their functioning.

One stakeholder suggested amendments to **paragraph 93** because NRAs are not in the business of running networks and this is an overly burdensome monitoring requirement for

NRAs. Some stakeholders proposed amendments to **paragraph 93** as when considering the traffic management measures to prevent network congestion, BEREC should acknowledge that network investment decisions are and shall remain in network operators' hands. NRAs should only monitor to ensure that rules set in the Regulation are not infringed.

BEREC response

Regarding the comment on **paragraph 91**, BEREC believes that a detailed discussion of which emergency services might require differential treatment would be too detailed for these guidelines, and the general principles set out in the paragraph should be sufficient.

Regarding the comment on **paragraph 93**, BEREC believes that these are similar to comments received in the 2016 consultation, and that no new considerations are provided in the current consultation. BEREC therefore refers to the 2016 consultation report for answers.

11. Article 3(5) first subparagraph: necessity requirement of specialised services

Stakeholder responses

Paragraph 105

Some stakeholders suggest amendments to **paragraph 105**. The respective arguments are that (i) the provisions of the Regulation do not require NRAs to verify whether the application could be provided over the IAS; (ii) investigations only need to be carried out if there are concerns that a service is attempting to circumvent the Regulation (i.e. provisions related to traffic management measures) since investigations carried out routinely would introduce a significant administrative burden for the concerned parties. Given, the demand for less regulation, one stakeholder suggests softening the wording used in **paragraph 105**.

Paragraphs 106-115 (Assessment according to Article 3(5) first subparagraph)

Some stakeholders support the guidance for assessing specialised services and one of them suggests that BEREC should provide additional guidance for the assessment of integrated offerings. One stakeholder suggests providing clarification about the choice of technology that is used for security reasons.

Two stakeholders propose modifying **paragraph 106**. In particular, the first one asks that a reference to CAPs be introduced and the second one requests that consideration be given to the fact that the requirements of an application may evolve over time and states that operators are best placed to determine if optimisation of a service is needed.

BEREC received comments and amendments from several stakeholders regarding changes to **paragraphs 108 and 108a** with regard to 5G related services which may require specific network conditions. The proposed modifications of **paragraph 108** are justified by the fact that the Regulation does not establish an ex-ante obligation for ISPs to prove if an SoIAS cannot be provided over IAS and any burden of proof should be on the NRAs' side. One stakeholder raises concerns and asks for a clarification about the regulation of services that are currently

under development. Another one requests a softening of the wording of **paragraph 108** in order to reduce the amount of regulation. Furthermore, one stakeholder does not share the view of the proposed wording of **paragraph 108a** and requests that it be deleted, whereas others ask that a reference to “in-flight connectivity solutions” be included in **paragraph 108a**. Finally, one stakeholder is not convinced that **paragraphs 108a-b** are sufficient to provide legal certainty and asks that additional examples be included.

Several stakeholders suggest modifying **paragraphs 110 and 110b**, because the Regulation does not require a connection that is logically separated. One stakeholder recommends adding admissible examples related to 5G network slicing to **paragraphs 110a-b**.

One stakeholder does not share the view of the proposed wording of **paragraph 111** and requests it be deleted, whereas others propose amendments. Thus, BEREC should make sure that the wording of the guidelines does not hinder the innovation of services.

Several stakeholders suggest amendments to **paragraph 112**. These proposals are justified given the uncertainty about the designation of specialised services and the conditions of reassessing such services as well as the request for a larger timescale for the reassessment. Thus, one stakeholder claims that NRAs should not reassess services once a standard of IAS was approved. One stakeholder even argues that this guideline is going beyond the scope of the Regulation. Although one stakeholder is concerned about the **paragraph 112** and considers that NRAs should reassess services whenever appropriate There are suggestions that a fact-based assessment be performed in the eventuality that the creation of innovative services would be hindered or to use an *a fortiori* approach by trying to correct any potential market failure once it has been detected.

Some stakeholders ask BEREC to clarify that in-flight connectivity is a “Specialised Service” and to modify **paragraph 113** accordingly. One stakeholder proposes a modification related to network slicing.

BEREC received some proposals to amend **paragraphs 114** and **115**.

BEREC response

BEREC notes that stakeholders provided several comments regarding specialised services that were already provided to the 2016 consultation of the Guidelines. Where no additional reasoning was provided compared with the 2016 comments, BEREC does not repeat the full consideration in this consultation report, but refers readers to the 2016 report.

Regarding the comments on **paragraph 105**, and regarding specialised services in general, BEREC considers that the current text provides guidance to NRAs which they should follow in appropriate cases. Regarding the suggestion to provide clarification about choice of technology for security measures, BEREC considers this to be at the ISP's discretion.

Regarding the comments on **paragraph 106**, BEREC considers that this strikes a good balance. Regarding the specific comment that operators are best placed to determine what kind of optimisation that is needed, BEREC has acknowledged that NRAs should gather such information from ISPs when assessing specialised services.

Regarding the comments on **paragraphs 108 and 108a**, BEREC considers that the guidance should be technology neutral, and that the text should not refer to specific technologies such as 5G. Regarding the comment that the Regulation does not support ex-ante obligations for ISPs, this is already clarified by BEREC in **paragraph 21**.

Regarding **paragraph 108a**, BEREC aligns the wording to refer to machine-to-machine communications (M2M) in line with the rest of the Guidelines, as well as the new Code. Furthermore, the provision of M2M should also been seen in the light of **paragraph 12**, i.e. that in some cases M2M services would alternatively be provided in private networks. Moreover, BEREC also notes that ISPs may also make use of specialized services for the provisioning of M2M services in cases where such services have to deal with energy exhaustion, interference and security.

Regarding the different comments on **paragraph 108a** regarding clarifications about services under development, softening of wording, deleting of paragraph or including additional examples, BEREC believes the current text strikes a good balance. The comments regarding in-flight services has been answered under Article 1 Subject matter and scope.

Regarding the comments on **paragraph 110** about logical separation, BEREC has already clarified that this is not required. Regarding the comment on **paragraphs 110a-b** about 5G network slicing, BEREC believes that the guidance should be technology-neutral and therefore no network slicing specific examples has been added. Regarding the comments about deleting or amending **paragraph 111**, BEREC considers that the current version is fully in line with the Regulation.

Regarding **paragraph 112**, BEREC believes it is too specific to refer to “usually several years” in case of reassessment; it is sufficient to explain that this would be expected to take place over a larger timescale. The duration could be longer in some cases, or it could be shorter in other cases, and BEREC should avoid pre-empting the discussion about the duration.

Regarding the comments about uncertainty related to reassessment of specialised services in **paragraph 112**, BEREC considers that the guidance to already be clarified in the text proposal provided for the consultation, where stakeholder comments received prior to the consultation spurred such clarification. Regarding the comments on **paragraphs 114 and 115**, BEREC considers that the current wording strikes a good balance.

12. Article 3(5) second subparagraph: capacity requirement for specialised services

Stakeholder responses

Paragraphs 116-120 (sufficient network capacity for specialised services in addition to IAS)

Several stakeholders have comments and suggest proposals to amend **paragraph 116**. The comments raised are, among others, referring to an inconsistency in the Guidelines, a different wording used than in the Regulation (degraded and deterioration vs. detrimental), a

demonstration of requirements that could not be fulfilled and no need for regulatory intervention.

Furthermore, some stakeholders propose modifying both **paragraphs 117 and 118**. They emphasise that BEREC should stick to the wording of the Regulation and also ask to include a reference to “network resource management”. Additionally, one stakeholder clarifies that in the context of 5G network slicing, services could be considered as sharing network resources and as not competing for such resources.

BEREC received some proposals to amend **paragraph 119**. The comments mainly address the fact that there should be no systematic monitoring assessment.

One stakeholder refers to unlicensed spectrum and suggests an amendment to **paragraph 120**.

Paragraphs 121-125 (Not to the detriment of the availability or general quality of IAS)

One stakeholder welcomes the explanations provided by BEREC especially in light of the 5G technology. Several stakeholders provide comments and suggest amendments to **paragraphs 121 and 121a**, in particular in relation to the technology of 5G (use of network slices) as well as to the proposed measurement methodology (confusing, too complex or even not supported at all). One stakeholder does not see the need for a harmonised tool, since several national monitoring systems are already in place. Two stakeholders even considers that the wording of both paragraphs is too restrictive, whereas another one is concerned that BEREC attempts to weaken the language.

Moreover, some stakeholders propose modifications to **paragraph 122**, whereas two others asked to include a reference to “satellite networks” in **paragraph 123**.

A few stakeholders propose modifying **paragraph 124**, as they either do not see the need for the NRAs to intervene as long as the impact of a specialised service on the quality of the IAS is not harmful or, as they emphasised, that the Regulation protects all end-users (suggestion to remove “number of users affected”.

Finally, several stakeholders suggest modifying **paragraph 125**, whereas one stakeholder does not agree with the amendment of **paragraph 125**.

Paragraphs 126-127 (Not be usable or offered as a replacement for IAS)

One stakeholder proposes amendments to **paragraphs 126**, since there seems to be a confusion of two requirements that specialised services must comply, and **127**, because a service could use the Internet to provide access to limited end points without circumventing the Regulation.

BEREC response

Regarding the comments on **paragraphs 116-118**, BEREC considers the current version to be in line with the Regulation. BEREC is mandated to issue guidance for the implementation of the obligations of NRAs under Article 5, and therefore BEREC is providing direction on how

NRAs could conduct supervision and enforcement and does not simply stick to the wording of the Regulation.

Regarding the comments on **paragraph 119**, BEREC does not prescribe any particular systematic monitoring assessment, but NRAs could use this guidance as appropriate when NRAs "closely monitor and ensure compliance with Articles 3 and 4" as obligated by Article 5. Regarding the comment on **paragraph 120**, BEREC does not find it appropriate to provide guidance particularly related to unlicensed spectrum.

Regarding **paragraph 121**, specialised services could be provided in virtual networks over the same infrastructure. Therefore, the reference to “offered over the same network” is deleted, to avoid any misinterpretation of the paragraph. As a result, the wording of **paragraph 121** is now closer to the wording of the Regulation.

Regarding the comments on **paragraphs 121-121a**, BEREC believes that the text strikes a good balance, and this seems to be confirmed with the opposite views in the consultation responses. Regarding the comments about 5G, BEREC maintains the text as technology neutral. Regarding the measurement methodology, this is to be developed in other work streams, and BEREC refers to these for further considerations.

Regarding the comments on **paragraphs 122**, BEREC considers the current wording to be sufficient, and will not include any network technology specific considerations. Regarding **paragraph 124**, a few clarifying modifications were made. The phrase “the number of users affected” could be misleading and giving the impression that some users would have less rights than others. BEREC instead explains the intended consideration in the following sentence. Also, the phrase “normal small-scale variation across the network” is inserted, describing this as a spatial dimension in addition to the already phrased temporal dimension of normal small-scale temporal fluctuation. Regarding **paragraph 125**, BEREC considers the current wording to strike a good balance.

13. Article 4 Transparency measures for ensuring open internet access

Stakeholder responses

In the context of its contribution to the public consultation for the draft BEREC Guidelines detailing Quality of Service Parameters (“QoS Guidelines”), one stakeholder also referred to the transparency requirements of the Regulation and further specified in the draft Guidelines. In particular, a suggestion was raised to align the QoS Guidelines with the draft Guidelines in the matter of transparency requirements where possible.

BEREC response

BEREC always aims to align work across all working groups and as such the Open Internet Working Group have worked with the End User Working Group to ensure that this has been achieved between the QoS Guidelines and the draft Guidelines.

14. Article 4(1) transparency measures for ensuring open internet access

Stakeholder responses

A stakeholder commented that **paragraph 128** is effectively creating a new definition for end-user here by specifying “consumer and business users”.

BEREC response

The end-user clarification arises from BoR (18) 244 which states that NRAs encounter ISPs who hold the view that transparency requirements only apply to IAS provided to consumers, which does not follow from the text of the Regulation and in particular Article 4. Additionally, within the 2016 Guidelines themselves, Article 1, paragraph 4 states that:

> *“BEREC understands “end-user” to encompass individuals and businesses, including consumers as well as CAPs”*

The same stakeholder also stated that only information required under Article 4(1) (a) must be published however this is contrary to the Regulation which requires that the information in the first subparagraph of Article 4 must be published.

14.1. Article 4(1) (a) transparency and traffic management measures

Stakeholder responses

Paragraph 135 has raised several comments by the stakeholders. One stakeholder suggests including information about particular identification technologies for the purpose of zero-rating and traffic management measures based on specific content (and not only the traffic management measures). On the contrary, another stakeholder notifies BEREC about the privacy implications of the use of identification technologies. One stakeholder cautions BEREC that the information might not be understandable for end-users. Another stakeholder suggested that when NRAs assess the methods used for traffic identification, they must seek feedback from, and closely collaborate with, data protection authorities.

Several stakeholders reject the disclosure of additional technical details or parameters as described in **paragraph 136**. They dispute the utility of these details for the end-users. Moreover, one of the stakeholders points out that the service evolution might be hindered with the disclosure of these details. Instead, they direct NRAs to give a general understanding on practices applied to the end-users.

One stakeholder disagreed that data caps should be included here as Article 4(1) (a) only specifies measures that could impact the quality of the IAS, privacy of end users and the protection of their personal data.

BEREC response

Regarding the comment to include information about monitoring specific content, BEREC notes that **paragraph 135** under the fourth bullet explains that in accordance with the Regulation, the ISP should be transparent on which personal data is used and how the privacy of end users is protected. This rule does not relate to the question which monitoring of traffic is and which is not allowed. That is addressed under Article 3(3) and in EU privacy law.

BEREC does not agree with adding guidance regarding cooperation with data protection authorities as cooperation between different authorities in this manner is not something that can be mandated by BEREC, although it is encouraged where it is considered to be of benefit.

BEREC agrees with the comment regarding data caps and has removed the references to data caps as a result.

Regarding the comment that the information provided to end users should be meaningful for end users rather than "as specific as possible", BEREC agrees that this is an appropriate amendment as it is correct to state that information can be quite specific but at the same time may not be helpful in terms of understanding the potential impact of those measures. For this reason BEREC has decided to remove the fifth bullet from **paragraph 135**.

14.2. Article 4(1) (b) transparency and quality of service parameters

Stakeholder responses

One stakeholder has suggested that **paragraph 137** should specify speeds in quantitative terms only and should not use terms such as "fast" or "ultrafast".

The stakeholder had also suggested that in respect of **paragraph 138**, end-users should be presented with a choice, for example between having their speed decreased and paying for additional traffic volumes rather than restricting data plans to fit a fair use policy when it has been described as "unlimited".

BEREC response

Regarding the use of the terms "fast" or "ultrafast" and the actual options end-users have on the market, BEREC notes that the Regulation addresses transparency topics concerning the IAS but not the language used in marketing as such.

Regarding transparency for end-users and what would constitute a limitation of the end-users' rights under Article 3(1), account must be taken of a range of commercial and technical conditions when assessing zero-rated offerings. BEREC has therefore decided to provide some additional clarity around this issue. As a result, **paragraph 138** has been updated to clarify that contracts for example must include information on exactly what data is covered under a data cap where differentiated pricing is applied to a service (please see also section 6.3 of this report).

14.3. Article 4(1) (c) transparency on specialised services

Stakeholder responses

One stakeholder commented that **paragraph 139** needs to expand on what information elements would be needed in relation to the impact specialised services might have on internet access service.

BEREC response

BEREC believes that this would be too prescriptive to require of IAS providers.

14.4. Article 4(1) (d) transparency on contractual speeds

Stakeholder responses

Paragraphs 141-141b

The FWA and Hybrid service transparency requirements have raised several comments by stakeholders. Two stakeholders argue that FWA should comply with the same transparency requirements of the mobile network operators as it is the same technology. Some stakeholders suggest that hybrid service cannot follow the same transparency requirements as the fixed services. Both stakeholders point out that the Hybrid service cannot comply with the specific provisions such as the “normally available speed”. And, therefore, the **paragraphs 141a and 141b** should be deleted or, at least, modified. These stakeholders also commented that they believe these paragraphs exceed the scope of the Guidelines.

According to some stakeholders, **paragraphs 141-141b** should mention that different network technologies might provide different levels of performance. If not, that would be contradictory with **paragraph 111**. One stakeholder suggests further clarifying what FWA is or is not.

Regarding **paragraph 141a**, one stakeholder suggested that BEREC includes a restriction on nomadic use of the service in this paragraph.

More generally, some stakeholders believe that Hybrid IAS and certain types of Fixed Wireless Access (FWA) should be treated differently with regards to the transparency requirements.

One stakeholder believes that FWA and Hybrid services should be treated equally while satellite service should have a separate category.

Finally, one stakeholder argues that no distinction should be made between fixed and mobile components of the same access at fixed locations and they proposed a change in the guidelines accordingly.

BEREC response

A number of the responses received to the updates to Article 4(1) (d) suggest that stakeholders had misinterpreted the intention behind the guidance provided in **paragraphs 141, 141a and 141b**. To clarify this BEREC has introduced an introductory explanation to **paragraph 141** which restates that the intention is not to impose fixed transparency

requirements on all Fixed Wireless Access (FWA) or hybrid services but rather is seeking to ensure that regardless of what technology is used to provide the service, the end-user is correctly informed as to what service level they can expect. BEREC appreciates that service level guarantees on a radio network are subject to unpredictable external influences and believe that this should be transparently explained to the end-user to ensure that they have complete transparency over what service level they can expect irrespective of the underlying technology used to provide that service. The consultation does not seek to draw parallels between wireless and mobile (or other technology types) but to provide some guidance as to when the different transparency requirements for either fixed or mobile technologies might apply. The transparency requirements are to be outlined in the end-user contract and it is by means of this that the end-user is informed as to the expected service level.

In respect of the comment that according to the wording, there may be a doubt about whether satellite access is included. This should not be the case as satellite technologies are deemed to be also subject to the same transparency requirements as other technologies. See also section 3 of this report.

Regarding the suggestion that the addition of **paragraphs 141a and 141b** exceeds the scope of the Guidelines, BEREC disagrees with this point as they have been included in order to clarify the application of Article 4(1) to the area of Fixed Wireless Access (FWA) and hybrid services.

Finally, regarding the suggestion that BEREC include a restriction on nomadic use of the service in this paragraph, BEREC does not believe that this is necessary in the context of the example of service provision at a fixed location.

Stakeholder responses

Paragraphs 143-144 (Minimum speed)

Paragraph 143 of the guidelines received a number of comments. Some stakeholders argue that this paragraph goes beyond the Regulation. They state that the Regulation only allows to consider the “contractually agreed speed” as non-confirming when the measured speed is consistently lower than the “contractually agreed speed”. Therefore, the collection of “minimum” and “actual speed” cannot determine non-conformity.

One stakeholder suggested amendments to **paragraph 143** specifying that the actual speed should not be lower than the minimum speed at any time and that the actual speed of the IAS should be specified as being measured and that the minimum speed should be specified as being agreed between the IAS provider and the end-user.

Moreover, these stakeholders suggest amendments to **paragraph 144** to avoid detailed information requirements to ensure the required commercial freedom. According to them, BEREC should at least not advise NRAs to apply specific restrictions such as limiting the possibility to agree specific speed ranges by introducing random “proportions” without considering individual technological conditions.

Two stakeholders commented on **paragraph 144**. The first of these suggested that BEREC should not advise NRAs to apply specific restrictions for example by specifying minimum

speeds. The second comment relates to the approach taken in relation to the definition of speeds for fixed and mobile networks and suggests that this approach would encourage IAS providers to specify very low minimum speeds.

Paragraphs 145-155

Regarding **paragraphs 145 and 146,** a response from a stakeholder states that there is no value in having the maximum speed being something that is achieved only once a day.

A stakeholder recommended that BEREC turn the examples it provided in **paragraph 148** into a set of criteria so as to ensure a more coherent application and enforcement approach. Another stakeholder noted that the final sentence of **paragraph 147** does not specify what is meant be a “used period”.

One stakeholder stated that in relation to **paragraphs 151 and 157**, they believe that it is important for BEREC to clarify that if providers advertise speeds that are higher or different to those contracted or delivered, this can lead to an unfair commercial practice under Directive 2005/29/EC.

A stakeholder has requested that the provisions regarding FWA outlined in **paragraphs 141, 141a and 141b** be restated under **paragraph 152**.

One stakeholder has requested that the text in **paragraph 153** be modified to restate that external factors may impact on the ability of an IAS to achieve the maximum speed specified.

One stakeholder requested that in **paragraph 155** the estimated download and upload speeds “should” be provided in a geographical manner as opposed to “could”.

BEREC response

Paragraphs 143-144 (Minimum speed)

BEREC does not believe that these suggested amendments to **paragraph 143** offer additional clarity to the paragraph and considers that the actual speed should not be lower than the minimum speed.

Regarding the comments on minimum speeds, BEREC notes that the example provided in this **paragraph 144** is intended to serve as guidance for one possible way in which NRAs could set requirements on the definition of minimum speed should they choose to do so.

In respect of the comment suggesting IAS providers would be encouraged to specify very low minimum speeds. BEREC disagrees with this as the minimum speed is a transparent metric which allows an end-user to effectively differentiate between different services irrespective of how low that minimum speed may be.

Paragraphs 145-146 (Maximum speed)

Regarding the comment that there is no value in having the maximum speed being something that is achieved only once a day, BEREC refers to **paragraph 146,** where it has stated that the exact requirements on defining maximum speeds may be set by individual NRAs according to what they deem to be acceptable.

Paragraphs 147-148 (Normally available speed)

Regarding the suggestion to turn **paragraph 148** into a set of criteria so as to ensure a more coherent application and enforcement approach, BEREC believes that this would be too prescriptive as NRAs are welcome to implement this as they find appropriate considering the national circumstances, should they consider it necessary at all.

Regarding the comment that the final sentence of **paragraph 147** does not specify what is meant be a "used period", although this paragraph was not originally updated during this phase BEREC agrees that the sentence does not add clarity and so it has been deleted.

Paragraphs 151 & 157 (Advertised speed)

Concerning the statement that is important for BEREC to clarify that if providers advertise speeds that are higher or different to those contracted or delivered, this can lead to an unfair commercial practice under Directive 2005/29/EC. However, this suggestion would be beyond the scope of the Regulation.

Paragraph 152

Regarding the request to restate the FWA provisions here, BEREC prefers to leave them where they are as the issues these paragraphs address are not solely related to IAS in mobile networks.

Paragraphs 153-155 (Estimated maximum speed)

Regarding the request to restate that external factors may impact on the ability of an IAS to achieve the maximum speed specified, BEREC believes this is not necessary as it is already addressed in **paragraph 141**.

Regarding the request that estimated download and upload speeds "should" be provided in a geographical manner as opposed to "could", BEREC notes that geographical maps can be required to be used where an NRA deems them to be necessary.

15. Article 4(4) certified monitoring mechanism

Stakeholder responses

Paragraph 161

One stakeholder suggests an amendment to the **paragraph 161** to ensure that end-users have a robust measurement system to assess whether the delivered performance reflects the contractual agreement or not. Two stakeholders request that in **paragraph 161** the text should be changed to ensure that NRAs will arrange third party certification of a measurement tool.

Paragraphs 164-166 (Methodology for monitoring IAS performance)

A number of responses were submitted regarding the text of **paragraphs 164-166**.

Some stakeholders stated that privacy has no impact on the quality of the IAS performance and would like the word removed from this paragraph. Another stakeholder requested that **paragraph 164** be modified to ensure systematic and close cooperation with data protection authorities.

A stakeholder has requested additional wording be added to the beginning of **paragraph 165** to ensure the validity of measurement tools already implemented at national level.

Several stakeholders suggest that performance measurements should be done within the ISP leg. Some stakeholders add that end-users must be informed about any external dilution or influence, if any measurement is performed beyond the ISP leg.

Moreover, regarding **paragraph 165**, one of them states that NRAs should assess existing National level measurement tools against BEREC guidance but that there is no obligation to modify these existing tools.

BEREC response

Regarding the request that in **paragraph 161** the text should be changed to ensure that NRAs will arrange third party certification of a measurement tool, BEREC notes that there is no basis in the current Regulation for the proposed change.

Regarding the request to remove privacy from **paragraph 164,** BEREC would like to clarify that privacy in this context does not refer to impact on performance but refers to BoR (14) 117[11] section 3.5 regarding how privacy issues should be addressed when performing monitoring.

Regarding the request that **paragraph 164** be modified to ensure systematic and close cooperation with data protection authorities however requiring this would be beyond the scope of these guidelines as these are not seeking to direct NRAs on topics such as their general privacy policy.

In respect of the request for additional wording at the beginning of **paragraph 165** to ensure the validity of measurement tools already implemented at national level BEREC notes that it is not the intention that NRAs would be precluded from using existing tools but that they would also consider the methodologies as published by BEREC as a support.

Regarding the request that **paragraph 166** be modified in such a way that measurements should be performed within the ISP leg rather than beyond it; BEREC does not agree with this change as the need to perform measurements beyond the ISP leg is provided for in BoR (14) 117:

> *"BEREC recommends that measurements beyond the ISP leg, including the interconnection of the ISP, should be used to account for the connectivity of the ISPs towards the Internet."*

[11] BEREC Report on Monitoring quality of Internet access services in the context of net neutrality, BoR (14) 117: https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/4602-monitoring-quality-of-internet-access-services-in-the-context-of-net-neutrality-berec-report

16. Article 5 Supervision and enforcement

Stakeholder responses

Two stakeholders provided general observations to Article 5. The first of these suggests that BEREC work with the Commission and to jointly submit a standardisation request to the European Standards Development Organisations to develop technologically neutral standards for measurement of IAS speeds. The second comments urges BEREC and NRAs to put more emphasis and resources on the implementation and enforcement of the Regulation.

BEREC response

BEREC considers that joint standardisation requests are out of the scope of the Guidelines and considers that implementation and enforcement of the Regulation are an inherent function of applying the Regulation and there is no particular need to emphasise this to NRAs.

17. Article 5(2) requesting information

Stakeholder responses

A stakeholder suggests an amendment in the **paragraph 184** to explicitly mention that NRAs have the mandate to collect the necessary information for the ex-post evaluation of zero-rating products (specified in **paragraphs 42b, 42c, 42d and 42e**). This stakeholder also suggests an additional bullet be added to **paragraph 184** to include details on the admission procedure for zero rating programmes.

As according to Article 5(2) NRAs could require market players to provide information about their traffic management practices, one stakeholder asks for the data formats or reporting standards to be specified as well as the schedule/frequency to be considered by the market players while reporting to NRAs. Additionally, this stakeholder points out the importance of a harmonised approach to be applied at the European level.

BEREC response

BEREC notes that **paragraph 184** holds a non-exhaustive list which includes a bullet stating that the following information can be required: “details about any commercial agreements and practices that may limit the exercise of the rights of end-users according to Article 3(1), including details of commercial agreements between CAPs and ISPs;” Therewith the suggested amendments are already covered.

Regarding the suggestion that BEREC ask for specific data formats etc., BEREC believes it should be a matter for an individual NRA to specify how they require the information to be submitted in a specific case, as this may vary from situation to situation.

18. Article 5(3) issuing these Guidelines

Stakeholder responses

Referring to Article 5(3) of the Regulation, one stakeholder suggests that generally BEREC Guidelines may include templates and examples on how the information to be reported to the NRAs by the different market players, including consumers, shall look like. Such information is considered relevant in the harmonisation process and in the context of NRAs' interoperability.

BEREC response

As per the text of Article 5(3), BEREC reviews and updates the Guidelines as and when it is considered appropriate to do so. This includes a review of all elements of the Guidelines including the areas that deal with the collection of information by NRAs.

19. Article 6 Penalties

Stakeholder responses

One stakeholder is concerned with the level of enforcement of the Regulation and urges NRAs to keep working to ensure appropriate enforcement and redress to consumers.

BEREC response

BEREC acknowledges the comment and will continue to ensure enforcement and redress procedures are followed in accordance with existing regulation. BEREC also notes that the annual Implementation Report gives details of all enforcement activities undertaken by NRAs every year.

20. Annex Assessment methodology[12] of zero-rating and similar offers

Stakeholder responses

Several stakeholders support the proposed framework and suggest some amendments for clarification purposes:

- One stakeholder welcomes the pragmatic approach of the Annex. At the same time the same stakeholder calls for more clarity regarding when NRAs should act to declare zero-rating offers illegal. BEREC should clearly mention the obligation to provide effective, proportionate and dissuasive sanction in case of infringements.

[12] References to the "Assessment methodology" should be read as references to the "Step-by-step assessment" in the previously published draft Guidelines.

- Another stakeholder generally supports the step-by-step assessment provided in the Annex. More specifically, this stakeholder proposes to add the cost per usage duration of an application or service in a specific sub-item to point 2(a)(iv).

- Some stakeholders welcome that the Annex provides additional detail regarding the application of the Regulation.

- One stakeholder recommends amendments for clarifying that NRAs should take a comprehensive and holistic assessment of both the positive and negative aspects of the relevant commercial practice(s).

Other stakeholders ask for further clarification and suggest different amendments to the text:

- Two stakeholders propose some amendments to the Annex because the methodology is deemed to be too prescriptive. Additionally, they recommend moving the Annex to the body of the text. In their view, the open programme cannot be part of the initial assessment. They mention that the articulation of this annex with **paragraphs 46 and 48** of the guidelines is not clear. They also argue that the assessment should be based only on the incentive/possibility for the customer to use non-zero-rated offers.

- Two stakeholders propose a weighing of elements to be assessed and thus how any particular element should impact the overall assessment. One of them also proposes to restructure the “main assessment” (point 2) by isolating the individual questions and considerations. They also suggest adding examples for providing additional guidance.

- One stakeholder raises concerns about the updates provided on zero-rating, in particular regarding the step-by-step methodology provided in the Annex. Hence, this stakeholder invites BEREC to include the following two elements in the step-by-step assessment: (i) impact of zero-rated or similar practices on the scale and the presence of alternatives, in particular MVNOs; and (ii) providing the possibility for MVNOs to enter into commercial mobile access wholesale agreements with MNOs.

- Another stakeholder calls for clarification as point 2(c) gives the impression that a case-by-case analysis may not always be required and that it is optional for NRAs to take into account the market positions of ISPs and CAPs. Similar, two other stakeholders point out that in order for NRAs to make a relevant decision, the analysis should take into account the market position on relevant markets of both ISPs and CAPs.

- A stakeholder argues in favour of deleting the new annex, since they believe it misses many of the important clarifications on how to evaluate zero-rating included in the text of the guidelines. Alternatively, this stakeholder mentions that BEREC could clarify that the annex is not meant to supersede or replace the more detailed discussion in the actual text of the guidelines.

- Another stakeholder refers to the free choice of equipment by end-users and non-discrimination of equipment manufacturers (point 3) and where in case of a violation the NRA has to act.

BEREC response

BEREC has changed the Annex's headline from "step-by-step assessment" to "assessment methodology" as the intention is not to prescribe a specific order of the assessment steps to be taken, but to provide a guideline for NRAs to assess such offers. Accordingly, BEREC now uses bullets rather than numbers for the sub-items of the Annex. Furthermore, considering the more generic nature of the Annex BEREC does not believe giving weight to the elements of the assessment will be appropriate when the circumstances of the individual case are taken into account.

In order to avoid misunderstandings BEREC clarified that the Annex does not supersede or replace the rules of the body of the Guidelines. Furthermore, BEREC inserted cross-references in the Annex to the corresponding paragraphs in the body of the Guidelines.

BEREC reiterates the importance of a comprehensive assessment – also referring to the criteria to be taken into account as set out in **paragraph 46** (goals of the Regulation, market positions of ISPs and CAPs etc.) – as well as the importance of a case-by-case assessment as was already pointed out in the first paragraph of the Annex.

21. Questions regarding paragraphs 69 and 70

Stakeholder responses and BEREC response

During the draft Guidelines' public consultation, BEREC sought feedback from stakeholders on the topic of monitoring of specific content by asking questions regarding **paragraphs 69 and 70**. BEREC welcomes all comments provided by stakeholders on these questions. A lot of the contributions were consistent with the submissions BEREC received during the 2016 consultation on BEREC guidelines.

According to the answers to **the first question**, which asked for any IAS that operate "specific categories of traffic" on the market, and which technical QoS requirements these categories are based on, stakeholders did not refer to any such IAS offers. However, stakeholders reported some parameters (e.g. IP addresses as source and destination addresses, port numbers, IP header information) that could be used to implement specific categories of traffic. Moreover, BEREC notes that the current standardisation process, e.g. the 3GPP standards[13], will be useful for developing new ways of identifying traffic in ISPs' networks in compliance with the current BEREC guidelines.

Regarding **the second question**, BEREC asked the stakeholders for existing methods which could be used to identify traffic for categorisation or for billing purposes. BEREC notices that several methods were reported for both purposes and some of them are compliant with the current version of the BEREC guidelines, in particular categorising by IP addresses, by QoS tags in the IP header and by heuristic methods. However, some ISP stakeholders advocate

[13] 3GPP*, "System Architecture for the 5G System",* TS 23.501.

the right to use other methods, like deep packet inspection (DPI), DNS snooping, server name indication (SNI) or uniform resource locator (URL).

To have a complete overview, BEREC asked the stakeholders, in **a third question**, whether the methods defined by the current **paragraphs 69 and 70** are efficient enough to ensure traffic identification for traffic categorisation or billing purposes. Some ISP stakeholders argued that the current meaning of specific content is too restrictive as it narrows down the content monitored by ISPs to layer 3 and 4 headers. According to them, pure L3 and L4 header information (which corresponds to generic content for the purpose of the current BEREC Guidelines) does not allow for reliable traffic identification since different applications are using the same IP addresses and many applications are transferred via the same port numbers. In relation to environments where the use of CDNs and multi-homing is widespread, some ISP stakeholders argue that additional information (e.g. domain name or URL) is needed to identify traffic coming from specific content and application providers.

However, the use of these methods based on domain names or URLs could be limited by end-user privacy rules. Several stakeholders raised concerns about potential privacy issues when ISPs use domain names and URLs for traffic identification, as BEREC had raised them before the public consultation. BEREC has requested advice from the European Data Protection Board (EDPB) on whether privacy regulations already define a notion similar to "specific content" and distinguish it from a "generic content", similar to the current BEREC guidelines. According to the EDPB public response (see "EDPB Response to BEREC request for guidance on the revision of its guidelines on net neutrality rules"[14]), there is no definition of "specific content" in the GDPR or the ePrivacy Directive. However, based on the definition of "communication" and "traffic data" in Article 2 of the ePrivacy Directive, EDPB believes that the network layer (e.g. IP packet) headers and transport layer (e.g. TCP or UDP) headers should be considered traffic data, while the transport layer protocol payload should be considered to be the content of the communication. Therefore, the EDPB agrees with BEREC's interpretation that transport layer protocol payload qualifies as specific content of the communication.

Moreover, BEREC notices that some stakeholders fear that using domain names or URLs for traffic identification could reveal private information about end-users, e.g. on the service used by the end-user. The EDPB raised the same concerns about potential infringement of European privacy rules and potential violation of individuals' rights and freedoms, and in particular a violation of confidentiality and informed consent. Therefore, BEREC encourages NRAs and DPAs to cooperate on a case by case basis, at national level.

These concerns find an echo in the **fourth and last BEREC question** on how end-users are informed about reasonable traffic management measures implemented by ISPs in their network and on which methods are used for traffic identification. Regarding this transparency issue, BEREC reminds stakeholders that end-users should be properly informed of both issues in compliance with Article 4 of the Regulation, in particular Article 4(1) (a).

[14] EDPB, (reference letter OUT2019-0055) https://edpb.europa.eu/our-work-tools/our-documents/letters/edpb-response-berec-request-guidance-revision-its-guidelines_en

Finally, BEREC also notes that any use of domain names for traffic identification might become more difficult in the future (as was also argued by many stakeholders). New standards such as DNS-over-HTTPS, DNS-over-TLS and encrypted SNI are aimed at protecting the domain name from clear-text-traffic; when implemented, they will prevent *de facto* monitoring of specific content based on DPI, just like URLs and HTTP content are currently practically inaccessible to traffic identification systems due to widespread use of encryption (TLS). This will mainly depend on the take-up of these new standards.

In conclusion, BEREC observes that the networks are facing evolution due to upcoming standards and increasing use of encryption technologies. Cases before the European Court of Justice might also impact this topic[15]. This environment motivates BEREC to maintain the current wording of **paragraphs 69 and 70** for the time being.

[15] For example, ECJ, *Telekom Deutschland*, case C-34/20. Depending on the answers given to the questions submitted to the European Court of Justice for a preliminary ruling, the Court might interpret paragraphs 69 and 70 of the BEREC Guidelines.

Annex – Stakeholders having submitted a contribution

- A1 Bulgaria
- A1 Telekom Austria
- A1 Telekom Austria Group (A1 TAG)
- Aalto University
- Access Now
- AIIP (Italian Internet Service Provider Association)
- Air France-KLM
- Alliance of Telecommunications Terminal Equipment Manufacturers (VTKE)
- Ana Aguiar, University of Porto, Instituto de Telecomunicações, Portugal
- André Rebentisch
- Barbara van Schewick
- BEUC – The European Consumer Organisation
- Center for Democracy & Technology and Public Knowledge
- Chaos Computer Club
- Coalizione del Fixed Wireless Access
- Copernicani
- DIGITALEUROPE
- EBU
- eco - association of internet industry
- epicenter.works
- Ericsson, Nokia, Cisco
- Facebook
- Gogo
- GSMA-ETNO
- Inmarsat
- Liberty Global B.V.

- Ministry for Economy and Enterprise Spain
- Nextcloud
- Norwegian Media Businesses' Association / MBL
- NOS
- Open-Xchange
- Panasonic Avionics Corporation
- Patrick Feucht
- Selfie Networks
- sipgate
- SITAONAIR
- SVT - Sveriges Television AB
- Telefonica
- Telenor
- Telenor Hungary
- Telia
- The Telecom Industry Association – Denmark (TI)
- Three Group
- TIM
- Universidad Carlos III de Madrid - students from the LLM in Telecommunications, Data Privacy, Media and Information Society Law
- VAUNET
- Viasat Inc.
- Vodafone
- Wire