| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Name of the document | | Name changed to BEREC Guidelines on the Implementation of the Open Internet Regulation | Adapt the name to be in line with the Open Internet Regulation. | No comment. | |
| Legal references | 1, 4, 7, 8, 25, 87, 98, 128, 129 and 134 | Minor clarifications regarding references to the Regulation (EU) 2015/2120, EECC Directive, GDPR and new B REC Regulation | The title of the regulation has been changed, new EECC Directive, GDPR and BEREC Regulation have been adopted. | No comment. | |
| Provider of electronic communications to the public | 10, 11, 12<br><br>Conj. 115 | Minor clarifications: reference to an example case, clarifications to the wording, an additional example when a service is more likely to be considered to be publicly available | Clarifications based on experience of BEREC considering specific cases. | A1 proposes minor clarification in examples of not publicly available networks.<br>Last sentence from the paragraph 12 should be deleted in order not to install misinterpretation. Customers pays for the service to the ISP also in the case of closed enterprise services or internal corporate networks or some form of payments exists in cafes restaurants or hotels. | 12. The following examples could be considered as services or networks not being made publicly available, subject to a case-by-case assessment by NRAs taking into account national practices:<br>• access to the internet provided by cafés and restaurants;<br>• **closed enterprise services and** internal corporate networks, **which includes but is not limited to leased lines, M2M, IoT and AI services.**<br>Examples of criteria which could be used to make assessments include |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| | | | | | the contractual relationship under which the service is provided, the range of users and whether the range is predetermined. ~~**Where the customer pays the ISP specifically for the service, this is more likely to be considered a publicly available service.**~~ |
| Commercial and technical conditions regarding servers provided by ISPs | 32a and 32b | ISPs may provide additional endpoint-based services similarly to CAPs, and this amendment clarifies how NRA should assess blocking of traffic via such servers un- der Article 3(2). | Linked to paragraphs 78-78b. There has been a need for NRAs to clarify how to assess commercial and technical conditions when ISPs provide these services. | No comments to 32a and 32b. | |
| QoS parameters other than volume and speed | 34a – 34c | Clarification that different application agnostic QoS levels may be offered based on | ISPs have argued that there is a need to offer IAS subscription s with different levels of quality. When | No comments to 32a and 32b. A1 strongly welcomes proposed amendments in these paragraphs. | 34c. If IAS offers come to the market which facilitate multiple QoS levels at the same time for a single subscription, NRAs should note that this may be allowed as long as this practice is application-agnostic **and** |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| (application agnostic QoS levels) | | combination of different QoS parameters. This amendment clarifies how NRAs should assess these offers. | different QoS levels are introduced, there is a risk that services requiring a higher level of quality will use the available network capacity resulting in very low network performance for lower quality services. Safeguards may need to be put in place to prevent this happening. | A1 TAG agrees with general proposal in 34c but second part of the paragraph especially last sentence can be seen as out of the scope of Regulation and proposes new competencies to the NRA in retail market that can be interpreted as retail market regulation. For us it is substantial and self-explanatory that practice of multiply QoS for single subscription is application agnostic and as the end user have right of choice, same principle like in 32b. | **as long end-user has the right of choice.** ~~**and is in line with the requirements in Articles 3(1) and 3(3).** In such an assessment, the NRA may among other factors take into account **the extent to which that** end-users **must** have **full** control over which applications transmit traffic over which QoS level (e.g. by configuring the client application software) and that the QoS level in which specific applications are transmitted is not preselected by the ISP based on commercial agreements with CAPs or the other end-users. Such assessment procedures **should** be fine-tuned by the NRAs **based on factual assessment** if and when use cases are implemented by ISPs~~. |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Relationship between Art. 3(1), 3(2) and 3(3) | 37 | Clarification that neither 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). | ISPs argue that Art. 3(1) and Art. 3(3) do not automatically apply to cases under Art. 3(2), meaning that Art. 3(2) overrules the other articles. Therefore, it was seen as useful to clarify the BEREC position even further. | No comment. | |
| New variants of zero-rating | 40, 42, 43 | Minor clarifications to illustrate more examples of commercial practices observed in the market in recent years. | BEREC considers that the Guidelines may benefit from including more guidance on how to approach commercial practices other than zero-rating, which are likely to limit end-user rights. | A1 TAG is on a stance that "fair and reasonable" terms on which CAPs may join the programme may create regulatory uncertainty as they can be interpreted on subjective view. We think that transparent and non-discriminatory terms are more than sufficient to preserve end user rights. | 42a. Taking as an example a zero-rating offer where a specific music streaming application is zero rated, an end-user would not be prevented from using music streaming applications that are not zero rated. However, the zero price applied to the data traffic of the zero-rated music streaming application (and the fact that the data traffic of the zero-rated music streaming application does not count towards any data cap in place on the IAS) **potentially** creates an economic incentive to use that music streaming application instead of competing ones. **When assessing such zero rating practices NRAs should assess the** effects of such a practice |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| | | | | | applied to one or more specific applications ~~**are more likely to**~~ **on whether they** "undermine the essence of the end-users' rights" or lead to circumstances where "end-users' choice is materially reduced in practice" (Recital 7) **compared to** ~~**than**~~ when it ~~**is**~~ **would be** applied to an open category of applications.<br>42b. When assessing zero rated offers and/or programmes, NRAs may consider the extent to which the programme meets what BEREC would consider best practice by being open to all CAPs of a particular category and, for open programmes, whether the terms on which CAPs may join the programme are transparent **and** non-discriminatory, ~~**fair and reasonable**~~.<br>42e. When assessing whether the terms for joining an open zero-rating programme ~~**are fair and reasonable,**~~ NRAs may consider the extent to which the commercial and technical conditions to enter the programme ~~**may form a barrier to enter the programme**~~ **are transparent and non-discriminatory.** ~~**A fee, if applicable, to enter the programme for example may be deemed unreasonable.**~~ NRAs |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| | | | | | should carefully consider complaints from CAPs about ~~**any difficulties**~~ **such** experience~~**d**~~**s** in joining zero-rating programmes. |
| Zero-rating programmes that are less likely to restrict end-user choice or undermine innovation on the internet | 42, 42a – 42e and 48 | New guidance to provide best practice on open zero-rating programmes that are less likely to restrict end-user choice or undermine innovation on the internet "open programme". | Stakeholders argued that zero-rating programmes are often not transparent, that it is unclear for CAPs if they are eligible to join a programme, and it is unclear how long it will take to go through the application procedure. BEREC is providing best practices to address these concerns. | No comment. | |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Long term effects of commercial practices | 48 | Clarification to take into account commercial practices' potential future effects on end-users' rights. | NRAs could assess the cur- rent effects of the identified practices and the potential risk of the practices resulting in future infringement on end users' rights. | Article 48 paragraph 6 goes beyond the scope of the Regulation and imposes new regulation on retail market for which NRAs now don't have legal competences. Assessing possible entry barriers or other practices from other areas of regulation is expanding the regulatory powers on the retail market. | 48 (paragraph 6)<br>Assessing limitations on end-users exercising their rights could be considered by taking into account actual and potential effects of commercial practices (e.g. zero rating practices) in the light of the relevant market and its economic and legal context. In order to ascertain whether end-users' rights are ~~likely to be~~ **materially** harmed in the future, NRAs could take into account how the actual commercial practice affects the concrete possibilities for potential competitors to enter the relevant market. ~~**Assessing the commercial practices' effect on potential competition would reveal potential restrictions of end-users' choice and would contribute "to guarantee the continued functioning of the internet ecosystem as an engine of innovation" (recital 1). Such assessment should be supported by evidence or an analysis of the structure of the relevant market (e.g. barriers to entry). NRAs could build on practices from other areas of regulation, such as competition law**~~ |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Functionalities that do not affect traffic may run on a permanent basis. | 73 | Article 3(3) requires that traffic management measures should not be maintained longer than necessary. This does not prevent ISPs from running measures on an ongoing basis as long as the measure is not in effect permanently. | ISPs have argued that there is a need to clarify that technical traffic management in network nodes is running permanently. However, they only have an effect on traffic in times of congestion. | A1 standpoint is that NRA should react and decide only in case of proven service detriment to the end-users which is base of the Regulation. NRA action should be based on proven arguments and not solely on predictions and assumptions. | 73. Some traffic management measures such as packet forwarding rules and respective protocols, are implemented on a permanent basis in network nodes like a queuing function running continuously. However, in packet switched networks such measures have an effect and impact the technical quality of service of traffic only when necessary, typically in situations of network congestion. For the assessment of the admissibility of traffic management measures, only those situations when the measures have an impact on the traffic need to be evaluated. Therefore, article 3(3) third subparagraph does not prevent, per se, a function being implemented and in place (but with the traffic management measure not yet effective) on an ongoing basis inasmuch as the traffic management measure only becomes effective in times of necessity. Necessity can materialise several times, or even regularly, over a given period of time. However, where traffic management measures are in effect on a permanent or recurring basis, **in case of proven service detriment to the end-users**, NRAs should consider whether the |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| | | | | | traffic management measures can still be qualified as reasonable within the meaning of Article 3(3) second subparagraph. |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Data compression | 77a | ISPs may implement data compression techniques as long as they are lossless i.e the content originally sent reaches its destination unmodified. Forcing adaptive bitrate coding does not represent data compression according to Recital 11. | Some stakeholders argued that application-specific throttling which forces content providers to supply video content at a lower resolution by adaptive bitrate coding represents a form of data compression. | No comment. | |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Applicability of the rules against blocking of traffic | 78 – 78b | Blocking of traffic is prohibited if it is executed within the network by the ISP. But such filtering is allowed if it is done outside of the network. NRAs need criteria to assess general aspects related to IAS, and specific cases such as HTTP proxy, DNS resolver, access router/modem etc. | Linked to paragraphs 32a-b. There is a need for NRAs to clarify how to assess blocking of traffic in endpoint-based services, in particular regarding how to determine whether the function is provided inside or outside the network. | No comment. | |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Monitoring traffic for security reasons | 85 | In order to identify security threats, traffic must be monitored on an ongoing basis. A clarification that such measures may be implemented in the background on a continuous basis. | ISPs have argued that there is a need to clarify that monitoring components that need to operate on an ongoing basis are permissible. | No comment. | |
| Footnote added to provide reference to ENISA Guidelines | 87 | Reference to ENISA "Guideline on assessing security measures in the context of Article 3(3) of the Open Internet regulation" | The ENISA Guidelines propose an evaluation process in order to help NRAs assessing security measures under Article 3. | No comment. | |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Specific level of quality for SpS does also include reliability | 108 and 108a | Objective technical reasons for justifying a Specialised Service (SpS) are limited to the specific level of quality, which would also cover reliability. This could not be achieved over IAS for resource-constrained devices, due to energy exhaustion, interference or security threats. | Stakeholders have argued, in particular related to 5G, that services like M2M/IoT involve devices that are resource-constrained and that such devices require specific network conditions or behaviour as a result. | Process of enabling of higher or lower QoS for specialised services than standard IAS quality should allow the exploitation of technological opportunities for the provision of innovative services, such as augmented/ virtual reality, VoD services and security requirements, which can rapidly evolve on the basis of market's needs.<br>It remains that the burden of proof should not be on the ISP side.<br>We need further clarification to the text in order to be more specific and to decrease the risk of misinterpretations. | 108. NRAs could request from the provider relevant information about their specialised services, using powers conferred by Article 5(2). In their responses, the provider should give information about their specialised services, including what the relevant **specific** levels of quality are, that are not assured by internet access services (e.g. latency, jitter, ~~**and**~~ packet loss **etc.**) but also other requirements for resource management as explained in the paragraph 108a below, and any contractual requirements. Furthermore, the "specific level of quality" should be specified**. In case of disputes regarding SoIAS compliance with the Regulation ~~and~~, NRAs ~~it should be demonstrable~~ shall demonstrate** that this specific level of quality **can ~~cannot~~** be assured **with the same result** over the IAS and that the quality requirements are objectively **not** necessary to ensure one or more key features of the service. |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Specialised services | 110a and 110b | New paragraphs containing clarifications relating to SpS and dedicated connectivity at the application level and logical separation of traffic between IAS and SpS. | The existing Guidelines have been misinterpreted and therefore a clarification is proposed. | No comment. | |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Reassessing whether SpS criteria are still met | 112 | Overall IAS quality will evolve positively over time leading to a situation where a SpS might no longer be necessary. NRAs have to reassess over time whether SpS criteria are still met. | Stakeholders have argued, in particular in relation to 5G, there is a need to clarify that the reassessment of SpS should take place over a larger timescale | A1 TAG proposes further clarification of the paragraph 112. In the way it is proposed it can create some confusion and misunderstanding. Also we welcome that reassessment should be taken on a large timescale. Also during the transitional phase of some SpS NRA should among other thing take into consideration obligations from the agreement of the end user for the service i.e. that the change of the treatment of the service should not affect current end user agreement in a way that it worsen its terms and conditions and therefore allow customer to terminate the contract. | 112. The internet and the nature of IAS will evolve over time. ~~**A service that is deemed to be a specialised service today may not necessarily qualify as a specialised service in the future due to the fact that the optimisation of the service may not be objectively necessary, as the general standard of**~~ **As** IAS ~~**may have**~~ improve~~**d**~~**s some specialised services will remain, some of specialized service may not qualify as such and new will emerge.** ~~**On the other hand, additional services might emerge that need to be optimised, even as the standard of IAS improves**~~. NRAs should assess whether a service qualifies as a specialised service on a case-by-case basis. In case of reassessment, this would ~~be~~ ~~**expected to**~~ take place over a larger timescale, usually several years. NRAs are not expected to keep specialised services under constant review. When an NRA assesses that a service that no longer qualifies as a specialised service due to the improved quality of IAS, the ISP should be allowed a reasonable transitional phase for phasing out of the specialised service. ~~**In these circumstances**~~, |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| | | | | | in line with national administrative and procedural laws ~~**apply,**~~ including ~~observing~~ the principle of proportionality **and in accordance with the obligation from the agreement of the end user of the service**. |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| SpS should not be included to the detriment of the overall quality of IAS | 121, 121a, 124, 125 | Where a SpS causes a perceptible decrease in the quality of an IAS, the NRA may choose to intervene. Also, the guidance how to assess the degradation has been updated based on NRA experiences and ongoing BEREC work. | Stakeholders argued that the wording in the Guidelines is too restrictive and prevents ISPs from implementing SpS, in particular related to 5G. | A1 considers that measurements on a proposed way in this article can lead to more confusions. What will mean NRA to perform measurement before SpS is introduced and after on short term or even worse on long term? Does that means that ISPs should wait with the service until NRA performs long term measurements of several months or does long term measurements can prove some effects from SpS? Therefore we propose deletion of the last sentence of the paragraph 121. | 121. Specialised services are not permissible if they are to the detriment of the availability and general quality of the IAS offered over the same network. There is a correlation between the performance of the IAS offer(s) (i.e. its availability and general quality) and whether there is sufficient capacity to provide specialised services in addition to IAS**. ~~NRAs may consider that IAS quality measurements could be performed with and without specialised services, both in the short term and in the long term, which may include measurements before the specialised services are introduced in the market as well as after.~~** |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Transparency measures for ensuring Open Inter- net access | 135 | The following topics have been addressed:<br>- Data usage caps and the potential speed limits after the cap has been reached<br>- How traffic management measures might affect the QoS of the IAS<br>- Traffic management measured should be defined to be as specific as possible | These issues were included in response to NRAs' experience in enforcing the transparency aspect of contracts to provide additional guidance regarding the expectations of ISPs | No comment. | |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Hybrid and FWA services | 141-141b | Clarifications have been added on how BEREC believes Hybrid IAS and certain types of Fixed Wireless Access (FWA) should be treated with regards to the transparency requirements | According to the BEREC Opinion, there may be uncertainty around which transparency rules (those applicable to fixed networks versus those applicable to mobile networks) should be applied in the case of Hybrid services and some FWA services.These modifications aim to clarify the circumstances under which BEREC believes these services to be subject to the requirements for either fixed networks or mobile networks. | A1 TAG do not support the classification of Hybrid service as fixed network access. BEREC should also consider network cost recovery and also BEREC should take into consideration different technology characteristics and principle of providing the service over mobile network compared to fix networks. It is not reasonable to generally impose specific provisions for fixed e.g. on speed ranges, normally available speed) on mobile technologies simply because the IAS is provided at a fixed location. Technical characteristics of mobile are much different, e.g. shared medium depends on the location. Therefore proposed articles 141a and 141b should be altered in line with technology principle. | 141a. BEREC considers certain types of FWA as fixed network services for the purpose of transparency requirements in the Regulation. This **applies where** ~~**is the case specifically where**~~ a mobile network is used for IAS provisioning at a fixed location with dedicated equipment and capacity reservation or usage of a specified frequency spectrum band is applied. In this instance it should be compliant with the transparency requirements for fixed networks.<br>141b. For the purpose of transparency requirements in the Regulation, irrespective of the implementation of any termination rate or rules in this respect, BEREC considers hybrid access as fixed ~~**network**~~ access ~~**for the purpose of transparency requirements in the Regulation**~~ when it consists of a combination of fixed and mobile technologies as a single subscription, it is provided at a fixed location, and **the end-user is not informed about the mobile technology included** ~~**it is marketed as a fixed**~~ **in the** service. Therefore, it should be compliant with the transparency requirements for fixed networks. If this is not the case, the fixed part of the service must meet the fixed |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| | | | | | network transparency requirements and the mobile part of the service must meet the mobile network transparency requirements. For example with regards to the mobile component of the hybrid IAS when ~~**marketed separately from**~~ ~~**the**~~ **not informing about the mobile technology** ~~**fixed**~~ component, NRAs may impose requirements concerning minimum quality of service requirements and other appropriate and necessary measures under Article 5(1). |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Methodology for monitoring IAS performance | 164 - 166 | Paragraphs 164 and 165 were amended to ensure that full account was taken by NRAs of recent BEREC publications on assessment methodologies and to clarify which factors should be considered when implementing a measurement methodology. Paragraph 166 was updated to ensure that speed measurements should be calculated based on the transport layer protocol payload. | Since the publication of the BEREC Guidelines on the implementation of the Regulation, there have been a number of further publications by BEREC addressing areas such as assessment methodologies and measurement tools. These paragraphs have been updated to take into account these publications. | On paragraph 166, A1 TAG believes that measurements should be performed within the ISP leg. ISP is limited in providing QoS out of reach of his network like external servers, external network elements etc. In the case of eventual measurements beyond the ISP leg, end-user should be informed about any influence from external influences. | 166. Following this existing guidance, the speed is calculated by the amount of data divided by the time period. These speed measurements should be done in both download and upload directions. Furthermore, speed should be calculated based on transport layer protocol payload. Measurements should be performed ~~**beyond**~~ **within** the ISP leg. The details of the measurement methodology should be made transparent. |

| Topic | Paragraph # | Overall description of change | Explanation | Comments | Suggestions |
|---|---|---|---|---|---|
| Step-by-step assessment for zero-rated offers | Annex | The step-by-step assessment is intended to give NRAs a clear tool for assessing zero-rated and other similar offers. The step-by-step assessment shall provide more structure to the analysis especially under para 46 of the and provide assistance to NRAs when assessing specific cases. | Some stakeholders, as well as NRAs, asked for more guidance regarding the assessment of zero-rating offers. | A1 considers that in order NRA to make relevant decision crucial to the analysis will be taking into account position on both relevant markets ISP and CAP market. | Paragraph 2b<br><br>iii. Is the offer provided by a vertically integrated ISP/CAP, i.e. an ISP which zero-rates its own content? The stronger the market position ~~**of**~~ **on** a ~~**vertically integrated**~~ ISP **market** ~~**/**~~ **and the stronger the market position on a** CAP ~~**and the more attractive the**~~ **market for the relevant** product, the bigger the potential **of** limitation of the end-users' rights as laid out in art. 3(1) of the Regulation of the product. |