mozilla

July 17, 2016

To: Body of European Regulators for Electronic Communications (BEREC)

Re: Comments by the Mozilla Corporation on the Public Consultation on the Draft BEREC Guidelines on implementation by National Regulators of European net neutrality rules

Dear BEREC,

Thank you for the opportunity to provide comment and input on BEREC's draft implementing guidelines for Europe's new Net Neutrality rules.

We would first like to thank BEREC for its prudent and ongoing work to craft guidance on the implementation of the obligations of NRAs, in particular those to closely monitor and ensure compliance with the rules to safeguard the equal and non-discriminatory treatment of traffic and related end-users rights. We appreciate the comprehensive, clear, and instructive draft guidance that has been put forward for comment; they are a necessary complement to the net neutrality rules which came into force November 2015 through the adoption of Regulation 2015/2120.

Mozilla's mission is to promote openness, innovation, and opportunity on the Web. We produce the Firefox web browser and Firefox OS mobile ecosystem, together adopted by half a billion individual Internet users around the world. Mozilla is also a non-profit foundation that educates and empowers Internet users to be the Web's makers, not just its consumers. To accomplish this, Mozilla functions as a global community of technologists, thinkers, and builders, who work together to keep the Internet alive and accessible.

Net neutrality is central to the Mozilla mission[1] and to the openness of the Internet. The open Internet relies on many technological and legal design decisions to ensure its continued vitality, and the net neutrality provisions in the Regulation help to preserve these features. In this sense,

[1] https://www.mozilla.org/en-US/about/manifesto/

the Regulation is a welcome achievement in Europe; however, it is not yet complete. BEREC's draft guidelines represent a step in the right direction towards completing and particularising the principles of non discrimination established in the Regulation.

Our commentary points to key elements that we see as important clarifications that should remain in the final version of the guidelines. In addition, there remain three areas of clarification that would complete the guidelines, in order to truly deliver comprehensive, strong, and clear net neutrality rules to the EU. They are:

- **Zero Rating.** We welcome the criteria laid down to assist NRAs in assessing the legality of some zero rated offerings, as well as the clear prohibition of some harmful commercial practices. As the guidelines fall short of a clear ban against zero rating offers, we impart Mozilla's views on principles for equal rating, which we believe are instructive for NRAs in assessing the appropriateness of zero rated offers under the Regulation.
- **Traffic Management.** The guidelines could be tightened to ensure that traffic management is carried out in an application-agnostic manner. We are concerned the guidelines might be interpreted to permit some types of discrimination which may result in anticompetitive practices.
- **Specialised Services.** We welcome that the draft guidelines clarify the definition of SpS, however we caution against allowing specialised services to cannibalise the effective capacity of Internet access services.

We remain at your disposal for any further information or clarification on any of these points. We look forward to working with BEREC throughout this pivotal process.

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❑ Commercial Practices & Zero-Rating (Paragraphs 28-45)

BEREC's draft guidelines establish a set of criteria upon which to assess which types of commercial offers may be permissible under the Regulation in paragraphs 28 through 45. The scope of "commercial practices" as defined in Article 3(2) of the Regulation is potentially quite broad, as it is not explicitly defined.

The draft guidelines indicate that such offerings and zero rating will be evaluated on a case by case basis. While a clear determination on zero rating would greatly simplify the role of NRAs in monitoring and enforcement, reduce fragmentation in the single market, and ensure a solid, predictable framework, we appreciate that the guidelines propose a relatively comprehensive criteria upon which NRAs can assess whether a particular zero rating scheme is permissible under the Regulation.

We appreciate that these criteria, outlined in paragraphs 42-44, take into account a range of factors, including the privileging of specific apps or services, competition and market position of the ISP and/or CAP, the impact on end-users and businesses, and the impact on the "internet ecosystem as an engine of innovation." Furthermore, paragraph 33 helpfully clarifies the distinction between application bundling and zero rating. However, we will caution that application bundling, and this particular example used ("a mobile operator may offer free access to a music streaming application for a period of time to all new subscribers"), can also impact other areas of law such as competition law and media pluralism.

We welcome that the draft guidelines also draw a line and definitively ban certain types of zero-rated offerings, such as zero-rated schemes where non-zero rated applications are blocked or throttled after the data cap is reached (paragraph 38); and so-called premium pricing models whereby certain categories of data are more expensive than others (paragraph 45).

Commercial practices that include subsidisation of end-user facing access charges are complicated. We appreciate the range of factors by which NRAs would evaluate the legality of commercial practices under the draft guidelines, as outlined in paragraphs 32 through 45. Should it be helpful, we offer our more compressed set of three principles to identify access subsidisation models that are optimally consistent with net neutrality. This is a concept we have pioneered called "equal rating".

To us, “equal-rating” describes a model of subsidisation of user-facing access charges that does not introduce the risks to innovation, competition, and user rights inherent in zero-rated models in the market today. Equal-rating practices meet the following criteria:

1. **They are content-agnostic.** Subsidisation should not be subject to any predetermined limits on the content, application, or service sought by the user, nor type of content, application, or service. This does not mean that a service provider cannot limit the user to predetermined amounts of subsidisation – merely that the provider cannot control that decision on the basis of content, application, or service sought by the user, nor type of content, application, or service.
2. **They are not subject to gatekeepers.** In many systems, a human element is involved in the approval of content before it can be included in a subsidisation scheme. This element effectively establishes a gatekeeper. Even if the criteria applied are facially neutral, the process creates the possibility of subjective decision-making that introduces a risk of content-specific bias into the system. Gatekeepers create barriers to entry for existing and new players, raising transaction costs of market entry; this would undermine the essence of the “innovation without permission” principle, where anyone, anywhere, can reach an audience without permission from anyone or any entity.
3. **They do not allow pay-for-play.** Allowing content providers to buy their own subsidisation injects the same types of harms as paid prioritisation in the context of traditional network neutrality analyses. Smaller providers are far less able to pay than large, resulting in harm to competition, innovation, and user choice.

Although somewhat distinct from the concept of “equal-rating” itself, good commercial practices should also follow two additional principles: They should be transparent, and should support user and content provider choice. The service provider should disclose details of the practice, including coverage limits as well as any tradeoffs the user will experience (e.g. for communications throughput or latency). Ideally, users should not be automatically added to a commercial practice that affects their experience, but should be required to opt in, after being presented with an opportunity to review technical disclosures regarding the practice. Finally, if there are any technical changes made to the content, application, or service as part of the practice (as with the U.S. case study Binge On, where total bandwidth was throttled among other changes), then content provider choice is fundamental as well, as content providers should be able to avoid the technical tradeoffs, even if a user chooses them, if in the provider's mind they impact the desired end user experience.

As our approach to equal rating demonstrates, there is room for innovation around internet access that can foster an open, collaborative, and innovative web. Innovative models for internet access and subsidisation should be encouraged, particularly in under-connected regions of the world, however, the bottom line is that these schemes do not and should never come at the expense the principles of net neutrality. We urge vigilance on behalf of NRAs to closely monitor all commercial practices to ensure they comply with the strict criteria provided by BEREC as well as the letter of the Regulation, particularly Recital 7, which clearly states that commercial practices "should not limit the exercise of those rights [of end users]".

❑ Traffic Management (Paragraphs 46-94)

The purpose of the Regulation is to ensure that Internet Service Providers (ISPs) treat all traffic equally; pivotal to this is to ensure that traffic management is as application agnostic as possible. These principles are explicitly recognised in Article 3(1) subparagraph (1), which states that "providers of Internet access shall treat all traffic equally"; and Article 3(3) subparagraph (2), where network discrimination based on "specific content, applications or services, or specific categories thereof" is explicitly prohibited. Class-based traffic management creates many harmful conditions for competition, users, and CAPs. Thus instances where class-based traffic management is permitted should be strictly limited to exceptional cases aligned with the principles of necessity and proportionality. As per Article 3(3), exceptional traffic management measures contain a stronger precedent for application agnostic measures. Thus, "exceptional" measures in limited times of congestion have a higher demand of proportionality then the reasonable measures and can be less discriminatory. BEREC should emphasise the this reading of the regulation throughout the guidelines.

In particular, paragraphs 54, 55, 57 and 63 currently do not reflect the letter of the Regulation and should be refined in order to ensure application agnostic traffic management. To close these gaps allowing broad class-based traffic management measures, in line with Recital 9 and Article 3(3), "reasonable measures" should be based on the Quality of Service requirements of traffic (e.g. classes for sensitivity to latency, jitter, packet loss and bandwidth). Therefore, paragraphs 61 and 63 should not focus on categories of applications, but rather on broad categories of sensitivity to objective QoS-requirements.

We would also like to raise with BEREC that vigilance in this area will be crucial, as future innovation can create challenges in determining the technical characteristics of a “type” of application. The technical characteristics of a “type” of application today may not be the same in the future, as the technologies evolve and add new functionality. So even if treatment for a “type” seems reasonable on its face today, may tomorrow produce harmful outcomes for users and the open Internet.

We suggest acknowledging this challenge in the guidelines in paragraphs, and in particular crystalising that providers shall not be authorised to engage in traffic management practices targeted at specific categories, types, or features of traffic, ultimately upholding the Regulation’s intention of application agnostic traffic management.

As one critical example of such a “type” of traffic, we welcome the specification in paragraphs 57 & 61 that encrypted traffic cannot be considered a different class of traffic and thus cannot be deprioritised or otherwise discriminated against. These principles should remain intact in the final version of the guidelines. Discrimination against encrypted traffic as a whole, or in favor of plaintext traffic (which in practice would have the same effect), would be problematic not only for net neutrality but for the privacy and security of communications for both businesses and citizens. Such treatment could prompt end-users to rely more on unencrypted services, creating perverse incentives to avoid privacy enhancing technologies. End-users should benefit from both speed and security; the two should not be pitted against one another.

We are equally supportive of the clarification in paragraph 65 which prohibits any traffic management on the basis of commercial grounds, and that the burden of proof should not be left to NRAs to determine how such discrimination may be driven by commercial reasoning. Establishing that the traffic management measure is not based on objectively different technical QoS requirements is sufficient. This paragraph will be crucial in preventing anti-competitive practices by ISPs that can be utilised to skirt the principles of the Regulation. Two such common examples are the following:

A. **Anticompetitive practices:** Network operators may contend that their specific offering(s) or the offering(s) of their partners have unique features which justify prioritised treatment over their competitors. For instance, if a provider has entertainment content offerings that are locally cached, the provider may prioritise traffic that's locally cached over other traffic, and claim that it is doing so for network management, while refusing to allow other service providers to cache traffic locally. In this case, although the provider is not facially discriminating against or in favor of any specific traffic or categories of traffic, the result is nevertheless intentionally anti-competitive and should not be permitted.

B. **Discrimination based on provider:** Conversely, a network operator may consider the traffic of a provider or set of related providers to constitute a specific category unto itself, or to possess unique features, which allegedly justify downgraded treatment. For example, a network operator may allege that YouTube and Skype are too high-bandwidth and thus should be throttled, while the operator's own video streaming and conferencing solutions are less used and thus less bandwidth consuming and are not throttled. Again, an act that appears on its face to be motivated by technical means is in fact motivated by anti-competitive ends.

❑ Congestion management (Paragraphs 84-89)

Article 3(3) envisions three scenarios whereby traffic management can go beyond 'reasonable'. They are: (1) compliance with legal obligations, (2) preservation of network integrity and security, and (3) mitigation of the effects of exceptional or temporary congestion and prevention of impending network congestion. Violations of net neutrality can manifest where the concept of congestion management is used for more systematic user behavior; hence our comments will focus on the latter scenario. Paragraph 89 will be an important guideline to ensure that, in line with the Regulation that, "such exceptional traffic management will only be applied as necessary, and only for as long as necessary" (Recital 12).

Congestion occurs under exceptional circumstances of unpredictable situations, and traffic management should be permitted to address these situations. However, the concept of "congestion management" should and must be strictly limited to circumstances of unpredictable load at irregular times, and must not be used as a cover for systemic underinvestment in network capacity. Paragraph 85 will be pivotal in ensuring that the mitigation of "impending network congestion" is not overreached, keeping these cases limited to "exceptional, temporary cases of imminent congestion". We welcome Paragraphs 87 and 88 which give precedence to application-agnostic traffic management measures and would invite BEREC to apply the same measurement of proportionality also to “reasonable measures”.

Regarding capacity enhancement, ISPs are expected to expand network capacity and engage in efficient network planning in order to address end-users’ needs and mitigate impending congestion issues. This is explicitly acknowledged in Recital 15 and we welcome the reaffirmation of this in paragraph 89.

❑ Specialised Services (Paragraphs 84-123)

We welcome the detailed criteria upon which NRAs can verify whether and to what extent specialised services are objectively necessary in line with the standard established in the Regulation in paragraphs 102-111. We particularly appreciate in paragraphs 104-7 that the burden of proof will be on the ISPs to justify the use and deployment of SpS. This approach encourages transparency, full disclosure, and removes the burden off the NRA who may have limited resources.

To complete this section, paragraph 118, which permits the cannibalisation of internet access by specialised services should be revised.

Technically speaking, specialised services are often understood as engineered in (at least) three distinct ways. First, they could be provisioned over distinct physical infrastructure, as separate wires and other hardware. Second, they could be provisioned as channels within the open Internet access service, using bandwidth allocated for the Internet access service but on a different priority level to achieve the desired quality threshold. Finally, they could be provisioned as channels that use the same physical infrastructure but a separate logical capacity, virtually walled off from the open Internet service.

The first type of service is both physically and logically distinct from Internet Access Services and thus the least problematic to assess in terms of its potential conflicts with the requirement for agnostic treatment of traffic in the Regulation. In our view, the Regulation and the draft guidelines cover the first type of service very well; we will thus set this variety aside from further consideration, and will address the second and third types in greater detail.

Both the second and third types may be desirable for content providers because they allow some traffic to “cut through” congestion or other delays associated with the open Internet service. The primary technical improvement is likely to be reduced latency and jitter, “smoothing” out the transmission pathway regardless of “noise” and traffic load associated with the open Internet service; in some circumstances, bandwidth might be improved as well.

As compared to the second variety, the third, logical separation over shared physical infrastructure, offers the same benefits for the ancillary services with fewer potential harms to competition. Sharing both the physical and logical infrastructure (the second variety) is functionally comparable to paid prioritisation arrangements over the open Internet access service, something recognised widely as harmful to competition, innovation, and user choice. In this variety, in the same way as paid prioritisation, giving a benefit to one causes practical harm to others (in that the capacity they could use is less than it would be if the specialised service were not actively in use), as well as challenging the user’s expected bandwidth for their open Internet access service (as some of that capacity is cannibalised by the specialised service).

In contrast, logical separation (the third variety) isolates and protects the capacity available to the open Internet access service. Use of the specialised service does not create congestion nor performance benefits for uses of other content, applications, and services on the open Internet. Although the total bandwidth available to the end user for open Internet connectivity is less, such disclosures can be made up front in accordance with Article 4(1)(c), and users will be better empowered to choose whether or not they wish to subscribe to specialised services and thereby limit their open Internet usage.

It’s highly unclear under what circumstances specialised services are appropriate, and what technological advancements the future may hold. Often, the contextual problems used to justify their “need” could just as easily be remedied through infrastructure investment, with far more significant benefits for the ecosystem as a whole. The benefits are also highly dependent on the nature of the implementation, and the source of delays associated with the open Internet connection. For instance, business users already have the capacity in practice to negotiate for more reliable and higher quality open Internet access services, and to manage the usage of their internal networks and infrastructure to achieve comparable benefits without need for new services. However, it is hard to know what new technological developments will manifest in the future. This is also why it’s important to ensure that SpS do not degrade the quality of IAS as per paragraph 118.

Shifting of content and investment from the open Internet towards restrictive connections represents a substantial risk associated with permitting specialised services. If specialised services take up a significant portion of capacity of infrastructure that also carries open Internet access services, then both current and new services will be incentivised to shift where possible to reaching users as specialised services. The result would be substantial harm to competition and innovation.

Given the importance of this issue, BEREC should clarify that the requirements for the objective necessity of a separate service cannot be arbitrarily established by the provider of the content, application or service nor by the obligations of the contract with the end-user, but instead must be defined by “key features” of the service and must be evaluated by the NRA in accordance with Recital 16.

To prevent the Regulation and its intended outcomes from being undermined, should such services be provided, Regulators should maintain vigilance in monitoring the evolution of SpS, and measures should be considered to prevent them from supplanting the open Internet as the world’s most important and fundamental communications medium.

❑ Privacy and data protection (paragraphs 131-133)

The Regulation’s obligations around the protection of privacy and data protection in the light of net neutrality were already clear, and BEREC’s draft guidelines are a helpful compliment. We particularly appreciate the reaffirmation that any monitoring practices put in place by ISPs must be fully in line with existing EU frameworks on privacy and data protection, including Directive 95/46 and 2002/58. By these principles, it follows that any monitoring must be limited to what is strictly necessary and proportionate. Under the Regulation, the least intrusive approach to traffic management should be used; thus, providers must first look to the suitability of techniques which do not monitor the content of data traffic. We suggest that BEREC include guidance and optional consultation with the European Data Protection Supervisor (EDPS) and Data Protection Authorities in paragraph 94. These expert bodies have already developed some guidance on data protection in this context and should be consulted when NRAs assess the privacy and data protection related impacts of traffic management.

- ❑ **Transparency, Redress, and Enforcement (paragraphs 124-187)**

Overall, we very much welcome the clear rules laid out in the draft guidelines relating to transparency, redress, and supervision and enforcement. We appreciate the criteria listed in for instance paragraphs 155, which outlines options for redress for end-users in the case of problems. We also appreciate that the transparency obligations were not limited to the contract as specified in point 124, which in practice, is very important to provide information via websites and through easily accessible and understandable formats. We would encourage the explicit mention of the website of the ISP as a destination for information provided to the end-user.

In paragraph 125 we welcome that these transparency recommendations should be considered a floor and not a ceiling as Member States are free to introduce additional monitoring, information and transparency requirements, as well as specify how they should be published and made available to end-users.

Regarding supervision and enforcement (paragraphs 164-182), the guidelines do not specify any timeframes or periods within which NRAs should react or intervene in violations. The phrasing of these paragraphs makes reference to discretions and powers, rather than obligations, responsibilities, or duties; we would encourage a clearer mandate for intervention, including timeframes, which would further empower NRAs - particularly those who may be under resourced - to fulfill their duties to adequately enforce the Regulation.

Respectfully submitted by:

Raegan MacDonald
Senior EU Policy Manager
raegan@mozilla.com

Chris Riley
Head of Public Policy
mchris@mozilla.com