Input on the draft BEREC Guidelines on Common Approaches to the Identification of the Network Termination Point in different Network Topologies (BoR (19) 181)

I would like to thank BEREC for asking for public feedback. I stand on the shoulders of the Free Software Foundation Europe (FSFE) and second their submission.

For reasons of freedom of choice, privacy and data protection, compatibility, fair competition, and security, end-users have to have the possibility to use an own telecommunications terminal equipment (TTE). This will only be freely possible if the network termination point (NTP) is at point A. Therefore, we strongly recommend BEREC to set the NTP at point A as the preferred policy and thereby establish and protect Router Freedom in Europe.

In the following, we would like to take the chance to explain this position by sharing input on specific questions raised by the draft.

On 3.1: Comply with existing European regulation

We welcome that BEREC mentions Article 3(1) of Regulation 2015/2120 as well as Recital 3 of Directive 2008/63/EC. Both unambiguously demand to give end-users the right to use their own terminal network equipment.

On the argument of “objective technological necessity” which Internet Service Providers (ISPs) may claim to make TTE part of their network, we cannot find a real case where any incident with customer premises equipment (CPE) would have justified a violation of the basic user rights determined in Regulation 2015/2120 and Directive 2008/63/EC.

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The experiences made in Germany after the legal clarification to set point A as NTP as of 1 August 2016 serve as a positive example that devices chosen by end-users do not cause technological damages for ISPs and other customers although some ISPs and network providers warned against this. A significant number of end-users decided to make use of this freedom, a vital market for CPE is evolving, and there were no such breakdowns in neither the cable nor the DSL network.

On 3.2: Set point A as the NTP

We agree to BEREC in the conclusion that the NTP at point A contributes the most to innovation and competition on the TTE market. Furthermore, there are many more arguments that speak in favour of setting point A as the default NTP:

- According to Regulation 2015/2120 and Directive 2008/63/EC, end-users must have the **right to choose** the electronic devices in order to connect to the internet, which includes both the modem and the router. This freedom of choice enables them to choose devices that suit their individual needs best.
- Routers and modems as TTE are gatekeepers of most online activity for internet users and businesses alike. Therefore, they need to be able to pick a device that allows them to use certain **privacy and data protection** features which fulfill their requirements.
- End-users regularly change their ISPs. Only if they can continue using their own device, they can port their settings and existing devices to the new provider. If their TTE was owned by the ISP, the **compatibility** to other providers and their specific requirements would be drastically limited.
- Users profit from the **free and fair competition** that guarantees free choice and steady improvement of products. The lack of competition would, eventually, come at the cost of the user because (security) features would be be continually reduced and the user-friendliness would drop. A vital CPE market will foster **innovation** that benefits the European industry and citizens.

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- The lack of Router Freedom increases the probability that large parts of the router market is dominated by only one or a few product families or manufacturers. In those settings, major problems or **security** holes affect an enormous number of users at once. That is particularly problematic when manufacturers and providers are very slow in the delivery of critical updates and users are not allowed to perform updates themselves. A larger number of available CPE benefits the general security of the complete landscape. It enables end-users to take own security precautions and/or commission an equipment manufacturer or service provider to take care of updates and preventive measurements.

We advise against recommending point B and C as locations for the NTP. This would cause a negative effect on all areas mentioned above and not benefit but rather harm network stability, user-friendliness, and security.

Furthermore, we recommend BEREC to consider setting the NTP at point A as the default recommendation for all European NRAs. Neither end-users nor ISPs nor equipment industry would profit from a patchwork rug of different NTP locations. Instead, a European-wide Router Freedom would allow for a larger degree of innovation, fair competition, and security in Europe.

On 3.3: More focus on end-user necessities

We appreciate that BEREC has identified a lot of issues that speak in favour of making point A the location of the NTP. However, we are seeing lack of considerations from the perspective of end-users whose technological necessities are highly substantial. Every other NTP location than point A would seriously hamper their digital sovereignty, freedom of choice, switching costs, ecological footprint, and technological security.

Regarding **3.3.1 and 3.3.2**, we would like to point out that the argument of endangered network security and stability has been brought up on many occasions before by some ISPs and network providers. However, we are not aware of any occurrence where liberalisation of the TTE market caused significant harm to the public network. Electronic devices sold in Europe meet high requirements, and the standards for access technologies like DSL or DOCSIS are mature and well-understood by manufacturers of network equipment.

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Instead of trying to create a false sense of security by isolating the public network from TTE not provided by the ISPs, network providers and manufacturers have to work together to maintain the high stability of these networks.

Regarding **3.3.3**, we would like to point out that the device and network security profits from a more diverse TTE landscape and more competition by manufacturers. The argument that ISPs care best for their clients security has been proven wrong by many incidents where routers did not receive updates for known vulnerabilities and therefore caused massive disruptions for end-users. Only point A as the NTP locations allows for a competition of equipment manufacturers for better security precautions, update service reliability, and complementary features. End-users will then be able to freely choose their equipment and service provider from a range of choices where the ISPs are not the only ones.

Regarding **3.3.4 and 3.3.5**, we conclude from BEREC's analysis that data protection and the handling of local traffic are best served by point A as the NTP. We agree to this position and would like to encourage BEREC to communicate this more strongly.

Conclusion

Overall, we see the draft BEREC Guidelines going into the right direction. Large parts of the analysis and conclusion match our experience. Point A as the NTP is the option that makes most sense from a customer's and technological perspective. However, we see two possible areas of improvement:

1. Make point A as NTP location the default recommendation for NRAs: We have argued clearly that point A is the preferred NTP location. We ask BEREC to join this conclusion and include our arguments brought forward in their guidelines. We also recommend to work towards a common understanding of this position by NRAs in the EU to avoid the risk of a regulatory patchwork rug.
2. Consider end-user necessities: Currently, a whole section deals with the impact of the discussed NTP locations on the "public network", so the network operators and ISPs. The requirements and demands of end-users, both individual and commercial, are not taken into account prominently though. Freedom of choice, digital sovereignty, and independence from ISPs are important values that are also covered by Regulation 2015/2120 and Directive 2008/63/EC.

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