

European Commission**Netnod reference:** 23-019

On the 23th of February 2023 the European Commission invited actors to comment on the exploratory consultation of *"The future of the electronic communications sector and its infrastructure"*.

Netnod hereby give comment summarised by these key points:

- The commission tries to fix something that is not broken.
Netnod suggests that any regulatory action should have sound empirical backing.
- The commission suggests an ex-ante normative regulatory design.
Netnod suggests that all regulatory design concerning digitization needs to be of ex-post character.
- The commission tries to vertically integrate network and traffic.
Netnod believes this fundamentally goes against the design of the Internet.
- The commission goes against the recommendation of BEREC.
Netnod believes the commission side-steps the purpose of BEREC.

Overall, Netnod is negative towards the suggestion that a metric should be developed based on which content providers should reimburse network operators.

See the appendix for further elaboration and discussion.



Karin Ahl
CEO

Tel: +46-702801265

Email: karin@netnod.se

Appendix 1 - Commentary and discussion

1. Introduction

Netnod welcomes the opportunity to provide feedback on the exploratory consultation of *“The future of the electronic communications sector and its infrastructure”*. However, Netnod has identified several flaws in the consultation, ranging from the design of its process to the contents of the suggested solution.

In general Netnod is of the opinion that the survey is quite tendentious. In particular as it assumes that the electronic communications market is driven by technology, and not regulatory change and customer demands. Also problematic is that the survey discusses throughput at end-user level, but does not at all problematise *“throughput to what / where”*.

2. If it ain't broken, don't fix it

The commission potentially tries to fix an imaginary issue, which is a problematic regulatory praxis. Here follows a short description of how routing and pricing on the Internet works, with emphasis on *works*.

In short, the **Internet model of payment settlement is only based on the value of traffic**, where the notion of value is relative to the preferences of the actor.

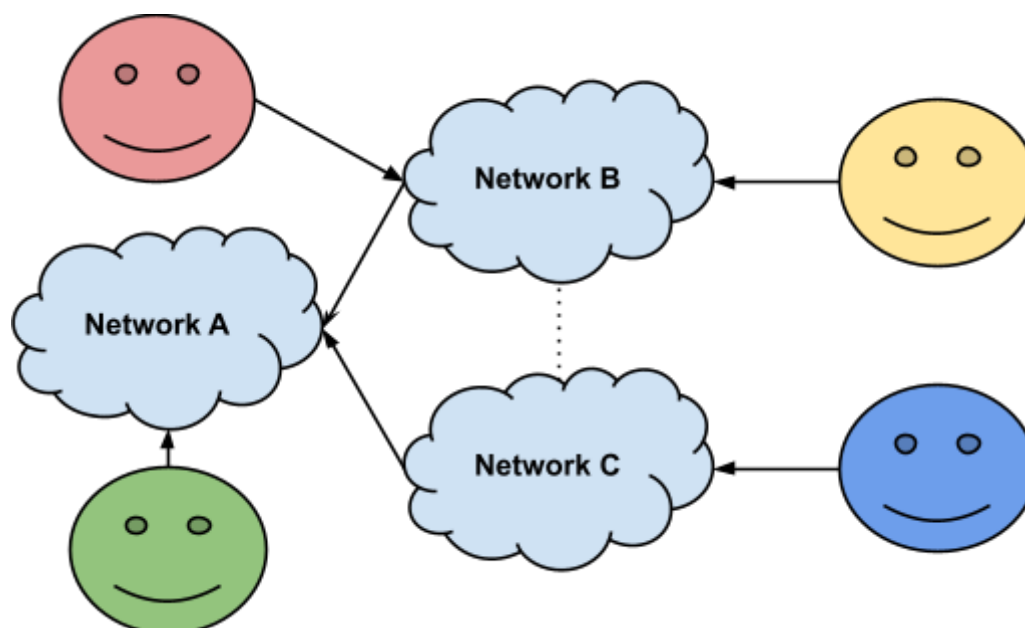


Figure 1: An example of interconnected networks (“clouds”) and end-users (“smileys”). The arrows represent payment direction.

Figure 1 illustrates a set of users and the networks connecting them. The users (smileys) buy Internet access from Internet service providers (clouds), which is a transaction where the user pays the operator of the Internet level service. The Internet service provider might then rely on other actors to provide that service, both in terms of infrastructure and connections to other actors. Some users send more traffic than others.

Here it might be prudent to stop and consider what the Internet is. The Internet is not a service provided by one operator, rather a vast global network of networks. As succinctly put in a deposition:

*It is perhaps also worth noting that [large network provider] and its peers and their many transit customers do not merely connect to the Internet; **rather they are the Internet**. The Internet is not a single, huge and over-arching network, but rather a collection of networks that collectively comprise a worldwide communication's stratum.*

(Markus, 2006, deposed)¹

In Figure 1 neither Network A, B or C *connect to* the Internet, rather they are part of the Internet, by exchanging traffic interconnected networks become the Internet. Figure 1 represents a small set of three networks, naturally these are in turn connected to a multitude of different networks.

Networks might exchange traffic for different purposes, ranging from purely commercial to almost altruistic or ideological reasons. For example, an end-user, be it organisation or private individual, almost always purchases Internet access based on market terms. These networks in turn can exchange traffic with a larger network by paying a fee, which is usually known as *transit*. This is represented by solid arrows in Figure 1.

Networks might also exchange traffic with other networks without any direct monetary reimbursement, due to both network operators benefiting from the traffic exchange. This is represented by the dotted line between network B and C in Figure 1 and is often referred to as *peering*. This represents a common "multisided platform" where it is beneficial to both network B and C to have as many customers as possible.

Both the yellow and the red user connect to and pay a fee to the same network, that is network B, and can exchange traffic freely.

The situation for the green user connecting to the yellow user involves another network, network A, which means that the traffic flows through (at least) two networks. In Figure 1 this is represented by a network B buying traffic exchange from network A, presumably because network A is larger than network B and has access to more customers (i.e., a multisided platform effect).

The blue user and the yellow user can connect over all of networks A, B and C, or just over B and C. It is up to networks B and C to decide if it is beneficial for them to exchange traffic, with or without the inclusion of a fee. The end-users can play a part in that decision, but do not have to. In the case that one of the users is more popular than another user, such as providing access to a large repository of movies, the network self-regulates its agreements to situations where the access to one particular network is worth more.

¹ See [UNREDACTED declaration as an expert witness in Hepting et. al. versus AT&T Corp. \("EFF's Class-Action Lawsuit Against AT&T for Collaboration with Illegal Domestic Spying Program"\)](#)

Here we go through networks involved and not all actors; but for many online services, such as websites, a multitude of actors are involved. An act such as browsing a news website might easily involve over a hundred different actors, ranging from network operators, to hosting providers, to DNS-providers, to ad providers, etc. Their interaction is today very lightly regulated, and their interactions work. Currently the Internet can be said to consist of almost a hundred thousand networks coordinated through self-regulation.

This is how the Internet currently works, networks decide on which grounds they should, or should not, exchange traffic. This model handles technological paradigm shifts with self-regulation. Netnod argues that the current model works. As does BEREC².

3. Primarily *ex ante* regulatory design is problematic

At a general level *ex post* legislation is preferable over *ex ante* regulation. *Ex ante* regulation specifies acceptable behaviour and is a quite intrusive tool as it has normative effects. Of special interest in this particular case is that *European Electronic Communications Code (2018/1972)*³ specifies criteria for *ex ante* tooling and regulatory action:

- (a) *high and non-transitory structural, legal or regulatory barriers to entry are present;*
 - (b) *there is a market structure which does not tend towards effective competition within the relevant time horizon, having regard to the state of infrastructure-based competition and other sources of competition behind the barriers to entry;*
 - (c) *competition law alone is insufficient to adequately address the identified market failure(s).*
- (Directive 2018/1972, Article 67, p. 151)*

The commission has previously (as above), as have several competent authorities⁴, noted that symmetric regulation, instead of SMP regulation, is the preferred *ex ante* regulatory measure as it is less invasive, and that the majority of electronic communications should rather be regulated *ex post*, with for example competition / antitrust law.

Netnod supports the notion that the *ex ante* regulatory burden should be lessened, not increased.

4. Agnosticism of traffic and network is core

The exploratory consultation of *“The future of the electronic communications sector and its infrastructure”* suggests that direct compensations mechanisms should exist for some parts of the traffic carried by network operators. Ignoring the exact compensation mechanism, it is deeply troubling that the Commission suggests that traffic should be treated differently based on source, as the suggestion says that there is remuneration for traffic generated by large content providers, but not for the traffic amounts generated by end-users (in addition to the existing market rates), such as VoIP-traffic.

² See [BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs](#)

³ DIRECTIVE (EU) 2018/1972 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2018 establishing the European Electronic Communications Code.

⁴ See, for example, [The EU telecommunications legislation for the Digital Single Market The Nordic NRAs' viewpoints](#)

At its core the Internet is designed on the premise that the networks should not care (in broad terms) about the traffic it carries. A network operator should not prioritise traffic, or do anything else with traffic, rather than deliver it to the best of its abilities.

A network where an innovator has to ask the network for permission, for example by negotiating a new price model, before innovating is a fundamentally different network than the Internet.

Vertically integrated networks are usually a staple of regimes where control over the network is of higher importance than any kind of innovation.

5. The recommendation of BEREC is seemingly ignored

BEREC has provided an opinion on SPNP in general⁵ stating that there is no underlying need to regulate remunerations of large content and application providers and network operators. In particular BEREC states:

*BEREC's experience shows that the internet has proven its ability to cope with increasing traffic volumes, changes in demand patterns, technology, business models, as well as in the (relative) market power between market players. These developments are reflected in the IP interconnection mechanisms governing the internet which evolved without a need for regulatory intervention. **The internet's ability to self-adapt has been and still is essential for its success and its innovative capability [emphasis added].** BEREC and some of its member NRAs have been monitoring IP interconnection markets as well as the underlying charging mechanisms for a considerable period.*

(BEREC in BoR (22) 137, p. 3)

*BEREC has found no evidence that such [direct compensation] mechanism is justified given the current state of the market. **BEREC believes that the ETNO members' proposal could present various risks for the internet ecosystem [emphasis added].***

(BEREC in BoR (22) 137, p. 14)

The commission should take considerable heed to the recommendations of BEREC to ensure proper functioning of the Union. The *Treaty on European Union, Treaty on the Functioning of the European Union, and Regulation (EU) 2018/1971* are quite clear on the matter that the commission and parliament should listen to agencies of the European Union, and that the agency for all electronic communication matters is BEREC.

The current exploratory consultation of “*The future of the electronic communications sector and its infrastructure*” seems a bit headless, and deeply problematic as it seems to take the perspective of lobby organisation over that of the decentralised EU agency. This fundamentally waters down the trust highly technological actors have for the EU commission.

⁵ See [BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs](#)

Note that point 5 is fundamentally different from point 2; point 2 concerns whether there is any merit to the idea that there is an issue, and point 5 concerns the functioning of the union, regardless of the merits of the idea. If the commission is of the opinion that BEREC does not have the adequate competencies, the solution is to fix that, not sidestep or overrule BEREC.

6. Question 54 and 60 from the survey

For brevity, here follows the answers to question 54 and 60 from the survey as well.

Question 54:

Q54. The European Declaration on Digital Rights and Principles states that all digital players benefiting from the digital transformation should contribute in a fair and proportionate manner to the costs of public goods, services and infrastructures to the benefit of all people living in the EU. Some stakeholders have suggested a mandatory mechanism of direct payments from CAPs/LTGs to contribute to finance network deployment. Do you support such suggestion and if so why? If no, why not?

Netnod does **not** support such a suggestion. As this document argues there are a multitude of issues with such a suggestion. In particular:

There is currently no problem with the current financial situation for large network operators. In general terms ex ante regulation is problematic for technology focused and rapidly changing environments, such as electronic communications. If the goal is increased investment in digital communications networks, public financing through either public procurement or direct financing of infrastructure is preferable.

For more depth, see earlier sections of this document.

Question 60:

Q60. The European Declaration on Digital Rights and Principles states that all digital players benefiting from the digital transformation should contribute in a fair and proportionate manner to the costs of public goods, services and infrastructures to the benefit of all people living in the EU. To achieve this, some stakeholders have suggested to introduce a mechanism consisting of a EU/national digital contribution or fund. Do you support such suggestion and if so why? If not, why not?

Netnod does **not** support additional such measures. Netnod notes that there are such measures in place, such as corporate tax.

There are already such measures in place, such as tax. There is no need for additional measures. The problem is not collection of funds, the problem is use of funds. The EU / member states should use forms of public financing, either through public procurement or as direct financing, to improve infrastructure where necessary.

For more depth, see earlier sections of this document.

7. Summary

Netnod notes several problems with the current consultation process and the direction it is taking. It is worrisome at a high level that the opinion of BEREC is ignored, worrisome at an implementation level that the EU suggests vertically integrating networks as a solution and stymying innovation thereafter, and worrisome that the EU suggests that in case there was a problem in need of fix, an ex ante solution is proposed.

Connectivity in the EU is not in need of additional regulation, but improved regulation.