Network Fee Exploratory Consultation 2023

General Remarks

Please answer the exploratory consultation[1] of the Commission for your organisation or personally and provide answers based on your own experience and perspective. Identical responses might be counted as one, so please redraft texts provided here for yourself.

If you are overwhelmed by the complex questionnaire[2], simply answer **Questions 54 and 60 with no** and thereby send a clear sign to protect the open internet.

All questions are optional. Most questions include tables for quantitative responses. Those are designed to dissuade people to participate and can be ignored. Simply put your answer in the "Please explain your answer" text box, but mind the 1000 character limit.

CONSULTATION RESPONSE BY EPICENTER.WORKS

Question 40: Quantify [...] your direct investments in network infrastructure [...][3]

Skip to "Please explain your answer" and respond:

The question's premise is flawed as infrastructure investment alone is only a narrow fraction of the ecosystems that constitute the digital economy. The demand for Content, Applications and Service Providers (CAPs) is what drives consumers to purchase high-quality internet access packages from their telecom operator. The question suggests that all parties in the value chain should contribute to the privately-owned equipment of telecom operators, which is unreasonable. It is like asking high value manufacturers to invest in mining primary resources needed for their production. The open internet relies on the fact that each consumer and CAP pays their own Internet Service Provider (ISP). VoD or Social Media Providers need to cover their own cost, just like producers of Telecom Equipment, CDNs etc. It is the ISP's responsibility to offer connectivity to virtually all endpoints (see Article 3(1) of Regulation (EU) 2015/2120) with the necessary interconnection agreements.

1 https://digital-strategy.ec.europa.eu/en/consultations/future-electronic-communications-sector-and-its-infrastructure

2 https://ec.europa.eu/newsroom/dae/redirection/document/94019

3 The full question reads: Quantify (in EUR million), as in the format below, your direct investments in network infrastructure and/or other digital infrastructure capable of optimizing network traffic within or relevant for the EU Member States for every year between 2017 and 2021. Please provide separate figures for each infrastructure category, both in absolute terms and as percentage of the revenues generated within the EU each year (here "network infrastructure" is to be understood in broad terms, e.g. at several different network layers, core, distribution and access network, including even undersea cables; "other digital infrastructure" is also to be interpreted broadly, e.g. hosting, data transport, data centres, CDNs, etc.)

Question 43: Quantify the increase of traffic transmitted (inbound/outbound) through your networks over the last five years on a year-on-year basis. Please indicate the main sources of data and the share of traffic using CDNs. Please reply to this question by indicating the 10 largest contributors by name and provide the % of total traffic they generated in your network.

Skip to "Please explain your answer" and respond:

Traffic is not generated by networks, but by paying subscribers that request services (data) from CAPs. The question is based on a flawed understanding of how the internet works.

The traffic exchanged between networks is also not directly attributable to individual CAPs. Networks that exchange data contain a multitude of individual endpoints which can be end-users, hosting companies or CDNs. Rarely can those networks be attributed to one specific CAP. But even if that was the case, any traffic which is tunnelled via VPNs, Tor, iCloud Private Relay or other privacy-enhancing services can not be attributed correctly. Most network operators don't monitor their traffic flows so closely to even know how to answer this question.

An exploratory consultation should not start with a wrong premise and then try to quantify the assumed problem with numbers only available to the only stakeholder group with monetary interest in the debate.

Question 45: In your view, what is the future outlook in terms of annual peak time traffic growth until 2030?

Skip to "Please explain your answer" and respond:

Internet traffic has been growing consistently over the past decades while costs for providing connectivity have not at all increased proportionately. Modern network equipment can handle more data while costs remain relatively stable or are even reduced. Particularly the COVID-19 pandemic has shown the resilience of the internet to handle unprecedented traffic spikes. This was due to the ability of the interconnection markets to adapt without much bureaucracy; a flexibility which might be put at risk with the regulation under question. We see a real danger for the resilience of the internet with this proposal, while also undermining the drivers for innovation and growth in the internet economy (level playing field, innovation without permission, etc).

Question 46: Please specify the fees paid to providers of ECNs within EU Member States cumulatively for the last 5 years and provide an outlook for the next 5 years.

Skip to "Please explain your answer" and respond:

The majority of interconnection agreements are done via handshake agreements without written contracts. That indicates the non-commercial and non-profit oriented nature of the majority of these agreements, which underpins the internet's resilience.

We would welcome more transparency in the interconnection market. Sadly, this exploratory consultation is not tailored to provide representative results from the majority of the affected Stakeholders, like Internet Exchanges, SMEs or public and private broadcasters.

If there is no transparency across the board, no sound factual basis can be obtained. Consequently, any potential future legislation based thereupon will not be able to regulate the interconnection market adequately. As was outlined by BEREC in their preliminary analysis of the ETNO 'fair share' proposal, there is no indication that a regulation of the interconnection market is needed and the consequences could be "significant harm to the internet ecosystem".

Question 48: Indicate your charging methods and the general pricing trend(s) on the IP market (increases/decreases/stable), particularly the proportion of paid peered traffic for the previous 5 years and provide outlook for the following 5 years.

Skip to "Please explain your answer" and respond:

Until the 2021 CJEU ruling that banned zero-rating practices in the EEA, traffic growth from US Big Tech companies was subsidised by ISPs in all but three EEA countries – by zero-rating offers. See https://en.epicenter.works/document/1522

Those offers were economically viable for ISPs – they set it up without compulsion and they invited and negotiated with CAPs so that they become part of their "free" service classes, (audio, social networks, video etc – because the variable cost of this traffic was negligible compared to the assumed marketing benefit of bundling access service together with preferentially treated individual CAPs. Cross-subsidisation of these bundles via payments from CAPs would have been illegal according to the BEREC Net Neutrality Guidelines (para 42e). Hence, the absence of any interconnection market regulation leads to the conclusion that the cost-covering premise of this question is incorrect.

Question 49: Specify the threshold above which you would consider a company to constitute a so-called large traffic generator ("LTG") based on the percentage level of traffic loaded on your network during peak time traffic (or any other classification that you may use). You should refer to this categorization method in all questions referring to LTGs.

Skip to "Please explain your answer" and respond:

Attribution of bandwidth allocation to individual businesses is almost impossible. The absence of porn websites as traffic "contributors" is proof of the biased data in the current debate. While Netflix features prominently in the ETNO report, Disney+ is missing. Disney+ is very successful in the EU, but instead of operating its own network, they choose to host their service on a CDN and cannot be singled out. As the traffic numbers for Google, Amazon and Microsoft in the ETNO report include their cloud divisions, CDNs seem to be included in any payment obligation. This would trickle down to the clients of those CDNs, which include many European services. German public broadcaster ARD Mediathek hosts on a popular CDN and many broadcasters have their content on social media platforms like YouTube to reach their audience. Any price regulation for

inter-connection – irrespective of the LTG definition – inherently raises costs for all sectors of society and hurts media plurality.

Question 50: In your view, over the last 5 years how have LTGs' investments in digital infrastructure and other innovations (e.g. evolution of compression algorithms) impacted the costs of network deployment investments of the network operators related to the increase of data traffic?

Skip to "Please explain your answer" and respond:

Compression algorithms have contributed significantly to the reduction of network load over the past years. The development of these technologies was mostly financed by CAPs in international standardisation bodies, although their application is equally beneficial to CAPs and ISPs (consider: their customer seeking access to content). Several studies showcase other contributions of CAPs in the form of caching servers, undersea cables, etc.
See https://www.analysysmason.com/consulting-redirect/reports/internet-content-application-providers-infrastructure-investment-2022/
https://www.analysysmason.com/consulting-redirect/reports/netflix-open-connect/

In addition it should be taken into account that these CAPs also produce EU and even country specific content, likely going beyond what they would have done if there was no specific media regulation in place.

Question 51: What is today the share of your network investment incremental costs caused by the increases of data traffic coming from LTGs, you defined in Q49? What was this share 10 years ago and how is it expected to evolve in the next 10 years? Please provide a separate assessment for fixed and mobile networks.

Skip to "Please explain your answer" and respond:

This question assumes a causal link between costs telecom operators have to cover and traffic increases in their network. The premise of this question is a type of "free-riding" of CAPs which BEREC has disproven in their preliminary analysis in 2022, as well as in previous BEREC investigations in 2012 and 2017. Simple logic also disproves LTGs "causing" such increase, because the ISP's customer requests data that's sent to the ISP's network. BEREC also found that interconnection markets are generally competitive and disputes were typically resolved without regulatory intervention, which WIK confirmed in its 2022 study.

Fibre access networks are attractive low-risk, low-reward capital investment targets. If free riding existed, the market wouldn't increasingly invest there and profits of incumbents wouldn't be what they are. Many of the network topologies at odds with interconnection regulation (e.g. caching) are actually saving costs for ISPs by bringing data closer to consumers.

Question 52: Are there any obstacles preventing providers of ECNs from charging digital players for increased data traffic through their networks?

Answer "YES"

Skip to "Please explain your answer" and respond:

ISPs have an obligation under the Open Internet Regulation (EU) 2015/2120 to provide connectivity to virtually all end points (Article 3 para 1) and not to degrade service quality based on commercial considerations or make their prices dependent from the concrete CAP or class of CAP that is transmitted (Article 3 para 3). We believe that the practice of several ISPs to exaggerate peering disputes already constitutes a breach of the EU's net neutrality framework. Should the Commission mandate such actions via price regulation, this would put such a legal instrument at odds with the existing net neutrality framework and lead to legal uncertainty likely escalating up to the CJEU. It simply cannot be done without infringing on net neutrality.

Question 53: What could be the effect on the environmental footprint of the services provided over electronic communications networks of a potential mechanism whereby the largest generators of traffic would contribute to network deployment, and/or would be subject to obligations regarding data delivery mode?

Skip to "Please explain your answer" and respond:

Any theoretical environmental benefit is expected to be negated by the market reaction to such new regulation. Most likely CAPs will shift to the point where they exchange their data with EU networks offshore. A similar effect was observed in South Korea after the introduction of Sending Party Pays. As Ofcom declared that they would not follow the misguided European plans, the Commission's plan could lead to a Brexit windfall dividend by which LINX might ultimately overtake DeCIX as the current world leading internet exchange.

This logical behaviour of market participants would not only have negative consequences for the environmental impact and cost of telecom operators needing to connect with relevant CAPs further away, it would also deteriorate service quality for consumers. This effect is also already visible in South Korea.

Question 54: 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?

Answer "No"!!!!

Respond to "Please explain your answer":

As studies of BEREC (BoR (16) 171) and RTR (29.10.2018) have shown, money is not the bottleneck for infrastructure rollout. If a better network is not what is at stake here, we are simply discussing the profit interests of private companies that happen to own physical networks and political influence in a minority of key EU countries. In Germany the network rollout by challengers far outperformed the rollout of incumbents (see BREKO Market Study 2022). Direct payments hurt challengers by favouring incumbents disproportionately by remunerating simply keeping their customers accessible for CAPs. The EU's past success in providing affordable connectivity stems from forcing competition in the telecom market. Not learning from mistakes is a shortfall, not learning from successes is disdainful.

A fair digital transformation cannot be achieved by re-introducing termination monopolies from the telephony era. The ETNO/Breton fair share proposal would amount to a business model from the past.

Question 58: Do you see any possible risks of a contribution to finance network deployment in the form of direct payments and if so, which? Please substantiate your answer, including with data.

Bring the items in this order:

1. Negative consequences for consumers
2. Sustainability within the internet ecosystem
3. Negative effects on the incentives for innovation
4. Other
5. Negative consequences on the competition between large and small providers of ECNs
6. Negative consequences on medium/small traffic generators
7. I do not know

Other

Negative consequence on media plurality, service quality and resilience of overall internet

Respond to "Please explain your answer":

Consumers will be hurt by poorer service quality and higher prices. SMEs will also face higher prices and a deteriorating service quality as network topology adapts to this artificial price regulation. The cost of innovating in Europe will increase and the resilience of the overall internet could fall below required levels to overcome a potential next crisis. Smaller ISPs currently do more for network development than incumbents, yet they will be hit particularly hard in their ability to compete. Ultimately, these negative effects will impede private and public broadcasters and thereby impair media plurality.

Question 59: What mitigating measures could be put in place to avoid the risks indicated in Q58?

Choose "Other"

Please specify "Other":

Simply don't regulate a market that needs no regulation

Respond to "Please explain your answer":

This idea from the telephony era simply will never fit the diverse, decentralised nature of the open internet. You either drastically change the nature of the internet and thereby abandon all of its benefits, or the EU will follow the South Korean example and add layers upon layers of regulation to rectify and curtail the negative effects this model would inflict. In the absence of a real problem to solve in the interconnection market, any regulation will ultimately cause more damage than good.

Nevertheless, ideas worthy of consideration:
1) ISPs above a certain size are obliged to a) prevent persisting/recurring congestions on transit links, b) peer at point-of-presence & c) allow on-network caching servers
2) transparency about all interconnection agreements incl price,
3) obligation to peer settlement-free towards all equal/smaller networks
4) Final-offer arbitration based purely on cost of connectivity should be solely reserved for cases of prolonged interconnection disputes

Question 60: 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?

Answer “No”!!!!

Respond to “Please explain your answer”:

The declaration is simply stating a fact. All participants in the digital transformation are already contributing fairly on their level. CAPs create incentives for consumers to even buy access services. Without digital savvy consumers none of the other businesses would even exist. The idea of "free riding" CAPs on ISPs network was rejected in the BEREC Preliminary analysis as simply unfounded. A fair contribution should never be based on traffic volume. Search engines and eCommerce platforms are highly profitable while having negligible bandwidth use. Taking the declaration seriously, any truly "fair" instrument should hence be based on revenue of CAPs. Such a tax could truly benefit the marginalised and unconnected parts of society and, if properly implemented, would circumvent all the outlined dangers of any form of regulated interconnection market. (note: see the answers to question 54)