

Public consultation on the draft BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services

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General information

During the 58th BEREC plenary meeting (7 March 2024), the Board of Regulators has approved the draft BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services for public consultation.

This report gives an overview of the impact of large CAPs on the markets for ECN and ECS in Europe, by presenting their strategies, business models, and relations with traditional ECN/ECS providers in terms of competition, cooperation and interdependence.

In order to better analyse the implications of the CAPs' presence and strategies in ECS/ECN markets, three case studies focusing on CDNs, submarine cables and internet relay services, are carried out. Moreover, the report also highlights some potential restrictions that may be imposed by operating systems providers on ECN/ECS operators.

Your details

* First Name and Surname

* Email

* Organisation name (in case you are replying on behalf of your organisation)

* Country of origin

Language of your contribution

English

Practical details of the public consultation

Stakeholders are invited to comment and provide their views on the different chapters of the draft report following its structure:

Executive summary

Chapter 1 - Introduction

Chapter 2 - Overview of large CAPs investments

Chapter 3 - Dynamics between large CAPs and ECS/ECN operators

Chapter 4 - Case study 1: Content delivery networks

Chapter 5 - Case study 2: Submarine cables

Chapter 6 - Case study 3: Internet relay services

Chapter 7 - Restrictions on access to services or functionalities by OS providers

Chapter 8 - Conclusions

Chapter 9 - Future work

Stakeholders may also upload a document as a part of their contribution, see below.

In order to facilitate the processing of the responses, the comments provided should clearly refer to certain sections/subsections/paragraphs of the draft report.

Stakeholders may submit their contributions by **24 April 2024 close of business**.

In accordance with the BEREC policy on public consultations, BEREC will publish all contributions and a summary of the contributions, respecting confidentiality requests. Any such requests should clearly indicate which information is considered confidential and be accompanied by a non-confidential version.

Public consultation

Please indicate comments on Executive summary and Chapter 1- Introduction

5000 character(s) maximum

Please indicate comments on Chapter 2 - Overview of large CAPs investments

5000 character(s) maximum

The Motion Picture Association (MPA) represents the interests of major international producers and distributors of film and television content. Our members include Netflix, Paramount Pictures Corporation, Sony Pictures Entertainment Inc, Universal City Studios LLC, Walt Disney Studios Motion Pictures and Warner Bros. Discovery. We serve as the global voice and advocate of the international film, television, and streaming industry. MPA member companies have been an integral part of Europe's cultural ecology for a hundred years; contributing to it greatly, and amplifying European Culture within and beyond the borders of the European Union.

We welcome the opportunity to contribute to the draft BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services. MPA supports the goal of a strong electronic communications infrastructure and availability of affordable, open, high-speed internet access, which allows for the high-quality distribution of content to a wide and diverse audience. CAPs and ECN providers have a symbiotic relationship within this infrastructure, creating a virtuous cycle fueling innovation and economic growth. Content provided by CAPs creates demand for connectivity, fueling the uptake of higher-end ECN services as consumers look for faster connectivity or more generous data packages to consume such content.

Chapter 2 - Overview of large CAPs investments

As noted in the draft report, while CAPs of all sizes have traditionally provided content on the client and server sides of the internet ecosystem, they are increasingly invested in network infrastructure. Some CAPs benefitting from technical knowledge or economies of scale may do so through the deployment of their own infrastructure (such as Content Delivery Networks or CDNs), and other CAPs benefit from widely available, competitive 3rd party solutions, including in the CDN space.

These investments are important as they help to improve both the services available for consumers and network efficiencies. For example, through various forms of investments in the internet ecosystem, such as (direct or indirect) investment in CDNs, encoding and compression technology and backbone infrastructure, MPA members are helping to ensure that their content is delivered without congestion or latency to the end user. Such investments also result in cost savings for ECN providers, as caching content closer to ECN's end users (on-net caching) is associated with substantial efficiency benefits and quality improvements.(1)(2)

(1) An Analysis Mason study found that in total CAPs invested over 120 billion Euros (in networks) between 2018 and 2021, resulting in a cost reduction for the global telecom industry of between 5 and 6.4 billion Euros. Abecassis, D., Kende, M., Osman, S., Spence, R. and Choi, N. (2022). "The impact of tech companies' network investment on the economics of broadband". Analysis Mason. October 2022 [online] Available at: <https://www.analysismason.com/contentassets/b891ca583e084468baa0b829ced38799/main-report---infra-investment-2022.pdf>

(2) Analysis Mason (2022) "Netflix's Open Connect program and codec optimisation helped ISPs save over USD1 billion globally in 2021". 14 July 2022 [online]. Available at: <https://www.analysismason.com/contentassets/ef8295594cc54285bf554b05daa06431/modelling-the-impact-of-netflix-traffic-and-open-connect-on-isp-traffic-dependent-costs---2022-07-14.pdf>

Please indicate comments on Chapter 3 - Dynamics between large CAPs and ECS/ECN operators

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The draft report rightfully flags that CAPs, and in particular VOD services, compete with some providers of ECNs themselves in the distribution of content. (1) When considering the effects of this competition, it is also important to keep in mind that unlike most providers of ECNs, VOD services operate very different and constantly evolving business models carrying high levels of risk and expecting different levels of reward for investment. Additionally, such services, including those of MPA members, operate in a competitive and regulated market, with many players both part of, or in the process of, entering the market. MPA members invest heavily in the EU and face significant obligations, including financial obligations in the form of financial contributions to national audiovisual funds, and/or audiovisual works direct financing obligations for both on-demand services and linear broadcasters.

An area of cooperation recognized in the draft report is regarding CAPs content and services to ISPs customers.(2) This cooperation is important – CAPs and ECN operators provide different and often complementary services along the internet value chain, bringing well-recognized mutual benefits to all parties involved. As an example of this, some MPA members have individual commercial partnerships (in the space of resale and bundles for example) with ECN providers in the EU. For users, these bundles simplify subscriptions and give access to discounts. For VOD services, they bring more members or subscribers, and for ECN providers they bring additional revenue in the form of a commission and enable the sale of faster connectivity or more generous data packages(3), as well as serve as a marketing tool by increasing the perceived value of their products through brand association with VOD services customers may have a previous, positive relationship with. As demand for online services ultimately results in an uptake of connectivity(4)(5)(6), this cooperation is important for driving the electronic communications sector.

(1) Draft BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services, page 18.

(2) Draft BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services, page 21.

(3) Examples include Voo and Orange in Belgium, Vodafone in Greece, Vodafone in Ireland, and more.

(4) The FTTH Council for Europe predicts that by 2027, Fiber to the Home/Business (FTTH/B) coverage will extend to 199 million households in EU27+UK. However, the take-up rate for such connections is expected to be only 62%, meaning that 38% of Europeans may choose not to subscribe. FTTH Council (2022).

“Forecast for EUROPE Market forecast 2022-2027” FTTH Council. 2022 [online]. Available at: <https://www.ftthcouncil.eu/Portals/1/PDF/FTTH%20Forecast%20for%20Europe%202022-2027.pdf>

(5) In terms of wireless networks, the European Commission’s 5G observatory reported that while 72% of the EU population is covered by at least one 5G network in 2022, only 31 million people have subscribed, resulting in a take-up rate of approximately 1%. European Commission, Directorate-General for Communications Networks, Content and Technology (2022) “5G Observatory Quarterly Report 17 October 2022”. [Online] Available at: <https://5gobservatory.eu/wp-content/uploads/2022/10/QR-17-Final-v3-CLEAN.pdf>

(6) The GSMA predicts that global 5G adoption will overtake 4G in 2029, but in Europe, 5G subscriber adoption is only expected to reach 87% by 2030. GSMA (2023) “The Mobile Economy 2023”. 2023 [Online]. Available at: <https://www.gsma.com/mobileeconomy/wp-content/uploads/2023/03/270223-The-Mobile-Economy-2023.pdf>

Please indicate comments on Chapter 4 - Case study 1: Content delivery networks

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As noted in the remarks on Chapter 2, MPA members help to ensure that their content is delivered efficiently to the end user through various forms of investments in the internet ecosystem, including through direct or indirect investments in CDNs.

The current draft report focuses on the effect of CDNs provided by the “largest CAPs”, but does not accurately acknowledge the current vibrant market that exists for CDNs. For streamers and CAPs offering VOD in particular, the existing competitive market for CDNs has allowed market entry by a wide range of competitors and the creation of a wide range of choice for EU consumers. The flourishing range of players in the European CDN landscape, includes purely private CDNs(1) and also wide range of commercially available CDNs of all sizes, either developed by CAPs (Google, AWS, Azure, Alibaba, Ubisoft’s i-3D.net)(2), by pure CDN players (Cloudflare, Akamai, Fastly, CDN77) or provided by or in cooperation with ECN providers themselves (Orange, Deutsche Telekom, Lumen, Verizon, Qwilt). The conclusion from BEREC that the CDN market is concentrated around a few providers(3) is misleading and is far from reflecting the reality seen by MPA members.

(1) E.g. Netflix Open Connect: <https://openconnect.netflix.com/en/>

(2) Ubisoft to acquire i3D.net to strengthen online service and bring best in class online experiences, 30 November 2018.

(3) Draft BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services, page 54.

Please indicate comments on Chapter 5 - Case study 2: Submarine cables

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Please indicate comments on Chapter 6 - Case study 3: Internet relay services

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Please indicate comments on Chapter 7 - Restrictions on access to services or functionalities by OS providers

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Please indicate comments on Chapter 8 - Conclusions

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Please indicate comments on Chapter 9 - Future work

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As noted in the section above on 'Dynamics between large CAPs and ECS/ECN operators', the draft report rightfully flags the cooperative nature of the relationship between CAPs and ECS/ECN operators. However, while content providers have invested significantly in their own network infrastructure, this has not changed the ECN providers' access monopoly for their end users. Efficient on-net caching requires a series of network planning and interconnection agreements and, in this respect, the relationship between content providers and providers of ECNs is critical to ensure user choice. The European interconnection market broadly reflects this: CAPs of all sizes, including MPA members, and the vast majority of ECN providers in the EU interconnection market cooperatively and efficiently following the 'bill & keep' principle, through private interconnections and/or public internet exchange points.

A key risk to the competitiveness of the interconnection market, to the preservation of user unconstrained access to the content of their choice, and also to innovation in the CDN space in general, is large ECN providers leveraging their position to extract fees, which results in market distortion. Large ISPs, with large retail market share and/or vertical integration with Tier 1 global transit networks, sometimes attempt to enforce restrictive interconnection policies, demanding fees for uncongested access to their network from CAPs and smaller ISPs. Indeed, some incumbent providers of ECNs do not accept offers from content providers for on-net CDNs.(1) Seeking payments for access to one's network, or paid peering, (as opposed to providing transit to other networks) while not forbidden in and of itself, is highly unusual and most often represents a net neutrality violation. For example, customers of the ECN provider will receive poor performance on any content or service not directly connected to the ECN provider, despite paying for access to the entire Internet, and the only alternative for a CAP will be to either pay a termination fee or suffer congestion and quality degradation.

We therefore suggest that BEREC, in their upcoming review of the internet interconnection market, should investigate the availability of uncongested transit routes into large vertically integrated Tier 1 ISPs', and whether interconnection practices may represent violations of Open Internet Regulations.

(1) WIK Consult study paragraph 16, 'Competitive conditions on transit and peering markets, Implications for European digital sovereignty'. 28 February 2022 [online]. Available at: https://www.bundesnetzagentur.de/EN/Areas/Telecommunications/Companies/Digitisation/Peering/download.pdf?__blob=publicationFile&v=1

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THANK YOU FOR YOUR CONTRIBUTION

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