

CSUC, as the organisation managing the IXP in Catalonia, CATNIX, welcomes the opportunity to provide feedback on the consultation launched on 11th July 2024 on BEREC's draft report on the IP Interconnection ecosystem (hereinafter "draft report").

IXPs perform a crucial function in supporting efficient and resilient interconnection between Internet networks facilitating multilateral internet data exchange (peering), which contributes to lowering costs, more competitive network dynamics, and increasing service quality for connected networks. This increases interconnection density and route choice, thereby improving the overall resilience of Internet infrastructure and reducing network latency. In a world where societal functions, including hospitals, PDDR-functions, civil contingencies management, and so forth, relies on the Internet, the resilience of the Internet is of utmost importance. Organizations providing IXPs are recognized as "Operators of Essential Services" for Digital Infrastructure in the Network and Information Systems Directive (2016/1148) and will be deemed "Essential Entities" in NIS2.

CATNIX, via CSUC, is a member of Euro-IX, the association of European Internet Exchange Points (IXPs), representing most of the European IXP community, whether measured by traffic carried, number of networks served or overall network capacity.

In this draft report, BEREC assesses the status of IP-IC in Europe and the market developments since the previous reports. The focus of the draft report is the period from early 2017 to autumn 2023 and it also includes an analysis of the likely trends from 2023 to 2030, where objective data exists.

To determine if there are issues in IP-IC markets that might necessitate regulatory actions, BEREC has examined the underlying issue of relative bargaining power between CAPs and IAS providers. It concluded that various factors influence the bargaining power between providers, including the degree of substitutability between transit and peering, the cost structures of transit and peering, economies of scale, and market and technological developments.

BEREC observes that the IP-IC ecosystem continues to operate under effective market dynamics and the collaborative actions of market participants. Nevertheless, BEREC acknowledges that a few IP-IC disputes have arisen since 2017, with workshops organized by BEREC indicating similar findings. Stakeholders generally did not advocate for regulation but recommended ongoing monitoring and evaluation on a case-by-case basis.

In conclusion, BEREC believes that since its inception, the internet has successfully adapted to both increasing traffic and higher traffic peaks. These trends indicate evolving usage patterns and the widespread adoption of IAS in societies. In this context, BEREC's view that changes in the IP-IC ecosystem represent an "evolution rather than revolution" remains valid.

As a representative of an IXP operating on the EU market, I am pleased to support BEREC's findings that the IP-IC ecosystem continues to thrive on effective market dynamics and the cooperative behavior of market players. Despite the occurrence of some disputes since 2017, these are isolated incidents rather than indicative of systemic

issues. The recommendation from stakeholders for ongoing monitoring and case-by-case assessments, rather than sweeping regulatory actions, aligns with our own experience in managing the complexities of internet traffic exchange.

Euro-IX and the IXPs believe that the competitiveness of the IP interconnection market has continued to develop and has increased in recent years. In particular, the number of IXPs reflects the needs of the market and the functioning of competition. In particular, we see no signs of market failure.

We believe that recent court decisions between content providers and Internet access providers are proof that there is a workable mechanism for resolving potential disputes and that there is no need to expose this market to the risk of the effects of ill-conceived regulation. Above all, it must be noted that these disputes and discussions focus on the very large IAPs and CAPs and relate to only a handful of companies on each side. It would therefore be wrong to generalize these individual cases and relate them to the entire IP-IC market, which affects an entire ecosystem consisting of several thousand companies.

We would also like to refer to a study that confirms and further supports BEREC's findings and assumptions. The study covers the recent developments in the IP Interconnection market and the observed market trends. In addition, the extent of traffic-sensitive network costs is examined and the question of how the network costs of the Internet access providers respond to the market development is investigated. The study is available here <https://www.eco.de/download/209884/>

Finally, BEREC's conclusion that the internet has effectively managed to accommodate both traffic growth and higher traffic peaks since its creation is a testament to the robustness of our infrastructure and the adaptability of our strategies. The observation that developments in the IP-IC ecosystem are evolutionary rather than revolutionary is particularly pertinent. We fully support BEREC's conclusions in the consulted draft report.

Signed,

Xavier Peiró

IT Director

CSUC