



Public Consultation on the Draft BEREC Report BoR (24) 51 on the entry of large content and application providers into the markets of electronic communications networks and services

Microsoft Comments

24 April 2024

Introduction

Microsoft thanks the Body of European Regulators for Electronic Communications (BEREC) for the opportunity to provide our comments and inputs on the draft report on the entry of large content and application providers into the markets for electronic communications networks and services¹.

We appreciate that BEREC acknowledges that companies like Microsoft have increasingly invested in connectivity infrastructure and in providing additional services related to ECN and ECS markets. For example, worldwide Microsoft has over 20k peering connections and over 350k kilometers of terrestrial and subsea cables, not to mention significant CDN installments across Europe. Microsoft continues to invest billions of Euros in internet infrastructure and digital infrastructure in Europe. These extraordinary figures still do not represent the totality of Microsoft's investments which are often not broken down by region and which cover for example substantial research and development in technologies such as artificial intelligence, quantum computing, 5G virtualization and many other software elements. Microsoft is therefore a substantial contributor to the global internet infrastructure and a major capital investor in Europe's digital future, with continuous long-term commitments in the continent. This clearly underlines the crucial role that cloud providers, with their digital infrastructure play in ensuring robustness, resiliency, security and effectiveness of today's internet.

Microsoft welcomes the collaboration with BEREC and aims for a continued evidence-based work. Hereby Microsoft would like to share more specific comments and observations with regards to the statements and assumptions introduced in the draft report.

¹ Draft report on the entry of large content and application providers into the markets for electronic communications networks and services | [BEREC \(europa.eu\)](https://berec.europa.eu)

Dynamics between CAPs and ECS/ECN operators

We appreciate BEREC's recognition of the interdependent relationship between Content and Application Providers (CAPs) and Electronic Communications Networks and Services (ECNs/ECSs) that involves both healthy collaboration and competition that deliver services more efficiently and cost effectively. As emphasized in Chapter 3 of the draft Report (*page 16*), the connectivity and consumption of online content and applications are inherently linked. This acknowledgment underscores the need for close collaboration between regulators and the European Commission to ensure these points are effectively addressed in an evidence-based manner.

Contrary to the assumption on *page 17* regarding cloud-network convergence, we assert that the relationship between cloud and network services is more accurately described as symbiotic rather than convergent. While they share a mutually beneficial relationship, their roles within the value chain remain distinct. We hereby would like to emphasize that most online services, such as CAPs, cloud and edge computing that operate in the application layer, are in addition to, and not in derogation or substitution of, traditional telecommunications services. While adoption of online communications by users is considerable, that does not imply product market substitution, and certainly not complete substitution for traditional telephony, or for mobile networks. Users of these products also typically subscribe to traditional fixed and mobile services and use each of them as the circumstances and call types vary, depending on the use case (e.g., at home, on the road, personal use, professional use, intended call duration, combination with text, video and file transfer, unified communications, conference calls, business solutions, etc.). Usage is therefore more complementary and accretive than substitutive.

Cloud services offered in the application layer are, to a significant extent, already covered by the EECC, either as NBICS or NIICS, when they offer similar service functionalities to traditional telco services, despite the fact that their infrastructure and delivery methods are fundamentally different. That said, we think that the concept of convergence is not the appropriate one to describe the situation and it could create several adverse unintended consequences, such as different layers of legislative complexity, impact on competitiveness, and fragmentation.

CAPs' investments in internet infrastructure in the EEA are increasing

In the draft report, BEREC refers to STRAND Consult findings, which suggest that the total internet infrastructure investments made by the CAPs only represent approximately 1% of their global revenue. We would like to contest this statement and encourage BEREC to use trustworthy and

fact-based data. CAPs have been investing increasingly more capital in infrastructure deployment.² It is true that CAP's investments are more diverse than those of telco operators but we strongly contest the STRAND assertions that the infrastructure investments would be limited to 1% of the total revenue, with capital expenditure dedicated to digital infrastructure deployments, including data centers, CDNs and network infrastructure, such as submarine cables. The Economist³ estimates Microsoft's total capex investments at 16% of its total revenues, and this is without considering opex investments. Moreover, it would be inappropriate to assess and compare the investment ratio of companies only on the basis of investments in connectivity. The development of VHCN is clearly an important goal but the take-up of those networks, through usage of digital services such as cloud or AI, is equally important. This is recognized in article 3(2)(a) of the EECC, as well as in the decision on the 2030 Digital Decade goals, which set concrete objectives for the take-up of cloud and AI services, in both private and public sector. It would be absurd to "penalize" CAPs simply because they invest less in telecom infrastructure than traditional telco operators. Overall, we appreciate that BEREC acknowledges that such investments are in general beneficial for Europe in terms of investment, as well as data sovereignty, as more data is stored and processed in Europe.

CAPs' investments have a positive impact, including on the resilience of global network

We appreciate that BEREC acknowledges that companies like Microsoft have increasingly invested in connectivity infrastructure and in providing additional services related to ECN and ECS markets. This clearly underlines the crucial role that cloud providers, with their digital infrastructure, that also includes networks of submarine cables, play in ensuring robustness, resiliency, security and effectiveness of today's internet. We appreciate BEREC's recognition that CAPs' investments in submarine cables have a positive impact on engineering innovations and push the boundaries for technical efficiency, contributing to lower latency and improved bandwidth and reliability.

However, contrary to the assumption on page 54 of the draft report regarding CAPs investments' limited impact on the global network resilience, we assert that such investments have a significant positive impact. Multiple, diverse routes help ensure outages have minimal to no impact on the services that depend on the cable. The diversity of routes ensured that the cable break in the Baltic Sea did not disrupt communications. Similarly, the resilience of

²See e.g. <https://www.analysismason.com/contentassets/b891ca583e084468baa0b829ced38799/main-report---infra-investment-2022.pdf>

³The Economist, 30 September 2023, "A second flight", p 16-18.

communications into and out of Europe even after damage to cables in the Red Sea – a route that typically includes traffic bound for/from Europe – is attributable to redundancy and route diversity. Europe needs more connectivity not less of it and the benefits of diverse subsea cables routes are broadly shared, which include improving network reliability, ensuring resiliency and increasing global connectivity thus reducing the digital divide. When physical damage does occur, redundant network paths can reroute traffic to minimise service disruption for customers and users. Governments and regulators can help reinforce diversity and thus resilience, by making it easier to land and maintain subsea cables.

Microsoft is a defender of the global internet through its global cybersecurity operations that contribute to the resilience of the internet. We have invested more than \$1 billion in cloud security each year and announced in 2021 to quadruple the amount to \$20 billion over 5 years.

Final remarks

We welcome BEREC's strive to carry out evidence and fact-based analyses and appreciate BEREC's recognition of the interdependence between CAPs and ECNs/ECSs. However, we contest certain assumptions as outlined above. We strongly encourage BEREC to address these concerns by adopting a more nuanced understanding of market dynamics, thus enabling regulators to better facilitate a competitive and innovative ecosystem in Europe.

We thank BEREC for the opportunity to comment on its draft report and look forward to continuing working with BEREC on these important topics.