

## ITI Response to BEREC Draft Report on the IP Interconnection Ecosystem

On behalf of the global information technology sector, the Information Technology Industry Council (“ITI”), 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 IP Interconnection ecosystem.

The Information Technology Industry Council (ITI) is the premier global advocate and thought leader for the information and communications technology industry. ITI’s membership comprises leading technology and innovation companies from all corners of the tech sector, including software, digital services, and internet companies. They are headquartered across Asia, the United States, and Europe, and many are significant investors and employers in the European Union.

ITI membership welcomes the collaboration with BEREC and aims for a continued evidence-based work, for this reason ITI acknowledges the intention of BEREC to accept comments to the report on the IP Interconnection ecosystem and wants to provide the views of the tech sector which welcomes the findings of the draft report. Indeed, ITI is pleased to see that BEREC’s rigorous analysis echoes many of the insights and recommendations we have communicated to BEREC and the European Commission over the past years.

ITI supports BEREC’s conclusion that *“that since its creation, the internet has managed to cope with both traffic growth and higher peaks of traffic. These trends reflect changing usage patterns as well as increasing diffusion of IAS throughout societies. Against this background, BEREC’s observation that the developments in the IP-IC ecosystem are an “evolution rather than revolution” still holds”*. ITI also supports the majority position of consulted stakeholders that no regulatory intervention is required.

In particular, ITI is encouraged by the affirmation that the IP interconnection market is characterized by functioning market dynamics (*Chapter 6*) which testifies the collaborative efforts of industry stakeholders involved. In fact, ITI has consistently remarked that IP Interconnection is a market where disputes are the exception rather than the norm. The report’s findings that disputes are rare and, when they do occur, are balanced in terms of bargaining power among the parties involved, reflect a mature and resilient market.

### Rationale and insights on traffic development

The rationale behind the BEREC findings provides further validation of the report’s conclusions. The insights shared in *Chapter 2* of the draft report highlight the empirical data analysis and the comprehensive understanding of market trends. ITI appreciates the rigorous methodology employed by BEREC, which enhances the credibility and reliability of the findings.

Moreover, as expressed in *Chapter 3*, traffic growth rates are stable, and competition and technological progress are putting downward pressure on costs and prices, thereby offsetting costs per gigabyte. The increased use of on-net CDNs has reduced the demand for long-distance transit as traffic is closer to end-users. Data confirms that traffic exchanged through CDNs is rising compared to transit and peering, with large CAPs investing in their own CDNs or transport infrastructure. BEREC's findings validate these trends, highlighting that peering often serves as a substitute for transit, especially when low-latency, high-bandwidth connections are required.

Actions from regulators to 'mitigate' data growth are wholly in conflict with a growing economy and digital sector and would only harm TSPs ability to raise revenue. Even in instances where traffic spikes may strain networks, for example, live events that may drive peak traffic demand, the impact can often be mitigated by cooperative planning with CAPs, and by ISPs using CDNs to distribute delivery. Technologies such as multicast are also being explored for "mass-live" events.

Moreover, the draft report suggests that ultra-high-definition video content and live streaming content could further contribute to the growth of data traffic. However, it is not appropriately stressed that growth in demand for these services is and will be progressively balanced by technological development and generation of efficiency, for instance, from new codecs, distributed delivery through CDNs or multicast.

These exceptions do not make the rule and these cooperative technological solutions are rising to meet the demand. Despite the increase in traffic, the internet has been coping well, confirming that the current market dynamics are robust and technological progress is a fundamental variable.

BEREC suggests that traffic growth is relatively steady at around 20% (in Western Europe) and 27% (in Eastern Europe) in 2022. According to ITU data, worldwide global Internet traffic has grown at an average annual rate of 22% from 2019 to 2022<sup>1</sup>. However, the compound annual growth rate in Europe for the same period is about 18%<sup>2</sup>. Interestingly, according to France's telecom authority, ARCEP, 2023 data shows the rate of incoming interconnection traffic slowed to 7.6 percent, a decrease from growth rates of 25.3 percent in 2021 and 21.5 percent in 2022<sup>3</sup>. While ARCEP attributes the drop to ongoing expansion of cache servers in CDNs and decrease streaming, it is possible the growth rates being examined for 2021 and 2022 represent "pulled forward" traffic growth due to COVID-era demand. This is to say, there is likely room for further analysis on traffic growth rates, as there are indications that traffic growth is falling again.

BEREC's data suggests the costs of carrying traffic are falling as fast (or faster) than traffic is rising, especially with falling traffic growth rates. This means costs of delivery are overall stable for ISPs, not increasing as claimed by certain operators. The marginal cost of carrying more traffic is pretty much zero. According to past research and internet service providers' financial disclosures, the vast majority (90%) of internet service provider network costs are concentrated

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<sup>1</sup> <https://www.itu.int/itu-d/reports/statistics/2023/10/10/ff23-internet-traffic/>

<sup>2</sup> <https://edgeoptic.com/global-internet-traffic-growth-forecast-looking-forward-from-2024/#:~:text=According%20to%20ITU%20data%20%E2%80%93%20until,to%205291%20Exabytes%20in%202022.>

<sup>3</sup> <https://en.arcep.fr/news/press-releases/view/n/digital-affairs-tome-3-ra-2024-040724.html>

in access networks (the “last mile”) that provide the final connection to the end user. Through a combination of technological progress and cooperation between ISPs and CAPs (e.g., use of caching and compression technologies), traffic or usage-related costs have not grown, are not expected to grow over time significantly, and will remain a small portion of costs.

## Market dynamics, disputes and bargaining situation

The IP interconnection market is defined by high cooperation among market players and efficient functioning without regulatory interventions. Since 2017, the number of disputes has been minimal, and those that have arisen typically involve vertically integrated ISPs. These ISPs might leverage their last-mile infrastructure to introduce higher fees to CAPs. The draft report notes *“some stakeholders reported that CAPs may struggle to find alternatives to reach end-users if practices of vertically integrated IAS and transit providers leverage their termination monopoly.”* Although this is not a definitive conclusion, it is a concrete possibility. However, these cases are exceptions, and the market generally operates smoothly without the need for regulatory intervention. In future analysis, BEREC could break out the composition of the “self-provided peering and transit” for vertically integrated ISPs, as in Figure 8 in the draft report.

The report’s examination of the relative bargaining power between ISPs and CAPs is particularly insightful. It notes *“it seems plausible to assume prima facie that overall, there is a balance in the IP-IC bargaining relation between CAPs and IAS providers”*. ITI agrees.

In Chapter 7, BEREC identifies several factors influencing this balance, including the degree of substitutability between transit and peering and the different cost structures of transit (variable costs) versus peering (fixed costs). For smaller providers with less traffic, transit may be preferred over peering. These nuanced understandings underscore the balanced nature of bargaining situations among different players, which can shift over time with technological changes and competition (*Chapter 7, page 31*).

Additionally, the typical disputes observed are rare cases, indicating that the market works well overall. Workshops conducted by BEREC noted that stakeholders generally observed market functioning without seeking regulatory intervention. This further supports the report’s conclusions about effective self-regulation within the market.

## Relationship between IP-IC and OIR

ITI welcomes BEREC’s confirmation of the general obligation on IAS providers in Article 3(3) OIR to ensure equal treatment in relation to traffic they manage when providing an IAS and that IAS providers’ restrictive interconnection policies can result in breaches of Article 3(3) OIR as well as the general principle in Article 3(1) OIR that end-users should be able to access content of their choice. BEREC might wish – when finalizing its Report – to provide additional guidance on this area, and/or update related aspects of its Open Internet Guidelines to make this clear.

ITI supports BEREC’s confirmation that the above-mentioned general obligation on IAS providers enables NRAs to take into account an IAS provider’s interconnection policies so as to

ensure that they do not have the effect of limiting the exercise of end-users' rights under Article 3(1) OIR, or otherwise circumvent the clear intentions of the protections under the OIR. As BEREC notes, the underlying objective of ensuring an open internet as well as the overall effectiveness of the OIR would be easily compromised if IP-IC were completely irrelevant (*Chapter 8, page 35*).

ITI further welcomes BEREC's indications that attempts of undermining OIR principles include selective routing policies and/or artificially manufactured scarcity (e.g., by abstaining from upgrading capacity on congested routes and/or by reducing or limiting the number of interconnections, as well as any commercial practices that would ultimately degrade the quality of the IAS experienced by end-users in an application-specific manner - *Chapter 8, page 35*).

Moreover, ITI supports BEREC's conclusions in Chapter 8 highlighting that:

- There is an obligation on IAS providers to abstain from any conduct that has the objective and/or the effect of compromising the provision of an open IAS for end-users, including conduct that is technically implemented at the interface between the access network and other connected networks.
- NRAs should conduct a comprehensive technical and economic case-by-case assessment in deciding whether certain IP-IC interconnect practices infringe the OIR (*page 36*).

## Conclusion

To build on the positive momentum generated by the draft report, ITI recommends safeguarding and enhancing the ongoing dialogue between regulators, industry players, and other stakeholders. This dialogue will be crucial in adapting to market changes and fostering mutual understanding without rushing into initiatives or policy proposals that could prove to be detrimental.

ITI fully supports the findings of the BEREC draft report on the IP interconnection ecosystem which emphasizes on the existence of a well-functioning market with balanced bargaining power. ITI looks forward to continuing our collaboration with BEREC and other stakeholders to ensure the sustained development and progress of the IP interconnection market.

Through its considerations, BEREC notes how the analyzed dynamics give a picture of a sectoral evolution rather than a revolution that needs prompt regulatory actions, noting that many developments continue progressively compared to past observations. Technological changes and competition dynamics, including occasional disputes, remain within normal levels, which testifies there is no need for policy measures as envisaged by Chapter 3.2.2. of the European Commission's White Paper on Europe's digital infrastructure needs.