

BEREC's work related to the IP interconnection ecosystem

Christoph MERTENS

Co-chair of the BEREC Open Internet Working Group

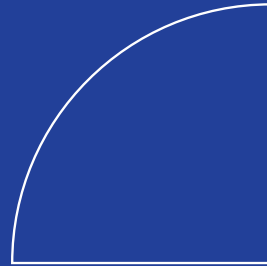
28 September 2023

#empowering
EUconnectivity



Several deliverables ...

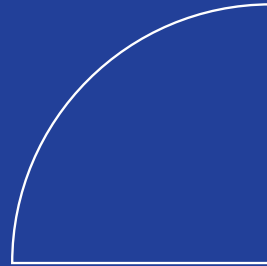
- **2007** Report on IP Interconnection, ERG (07) 09
- **2008** ERG Common Statement on Regulatory Principles of IP-IC, ERG (08) 26 final
- **2010** BEREC Common Statement on NGN Future Charging mechanisms/Long Term Termination Issues, BoR (10) 24 Rev. 1
- **2010** BEREC Response to the European Commission's consultation on the open Internet and net neutrality in Europe, BoR (10) 42
- **2012** BEREC's comments on the ETNO proposal for ITU/WCIT or similar initiatives along these lines, BoR (12) 120 rev. 1
- **2011, 2012 and 2016** BEREC Workshops on IP-Interconnection in cooperation with the OECD
- **2012** BEREC Report: An assessment of IP interconnection in the context of net neutrality, BoR (12) 130
- **2017** BEREC Report on IP interconnection practices in the Context of Net Neutrality, BoR (17) 184
- **2022** BEREC's preliminary assessment on the underlying assumptions of payments from large CAPs to ISPs, BoR (22) 137
- **2022** BEREC report on the internet ecosystem, BoR (22) 167
- **2023** BEREC's response to EC's exploratory consultation on the future of the electronic communications sector and its infrastructure, BoR (23) 131b and BoR (23) 131d
- **2024** BEREC report on the IP interconnection ecosystem



BEREC's reports on IP-IC and NN (2012 and 2017)

Main findings

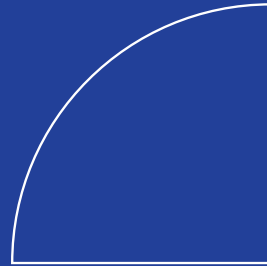
- IP-IC market largely **driven by competition**
- Internet traffic has growing steadily
- Internet has proven its **ability to self-adapt** to changing conditions such as increasing traffic volumes and changing demand patterns
- Prices for transit/CDNs services declining: competition, on-net CDNs, technological progress
- ...all this contributed to offset increasing traffic volumes
- **Charging mechanisms:** transit/peering, Bill & Keep (no exploitation of physical termination monopoly)
- +99 % of all peering arrangements on **handshake basis**
- Increasing relevance of CDNs and direct IC over time
- Disputes were typically solved in the market **without regulatory Intervention**



BEREC's comments on the ETNO proposal for ITU/WCIT (2012)

Main findings


- In the context of the ITU “World Conference on International Telecommunications” 2012 ETNO had proposed “Sending-Party’s-Network-Pays”
- **BEREC refuted these claims:**
 - Transfer of telco billing mechanisms to the Internet
 - Risk of shifting the balance of negotiating leverage between market participants
 - Abuse of termination monopoly → inducing need for regulation
 - Users cause traffic (= request content) – not the CAPs – and pay for it
 - No evidence of free riding
 - Mutual interdependence: CAPs – eyeball ISPs



BEREC's preliminary assessment (2022)

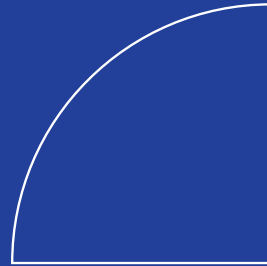
Scope of the preliminary assessment



- Context: claims for a “direct compensation” from CAPs to ISPs
 - BEREC assessed the **underlying assumptions** of such claims
- 

Preliminary findings

- Traffic is requested and “caused” by ISPs’ customers
- **Costs for Internet connectivity typically covered and paid for by ISPs’ customers**
- Fixed access network **costs** exhibit very **low traffic-sensitivity**, (mobile networks some degree)
- IP-IC disagreements typically about increasing capacity of the IP-IC link
- Costs for network upgrades to handle increased traffic volume are **low** compared to total network costs
- CAPs and ISPs are **mutually dependent** on each other
- **No evidence of free-riding**
- SPNP would require **regulatory oversight**
- Interventions in the market require **adequate justification**
- BEREC is of the opinion that underlying assumptions regarding the proposal have not changed and considers **2012 conclusions still valid**



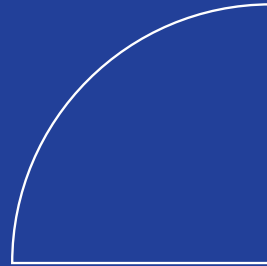
BEREC's response to the European Commission's exploratory consultation on the future of the electronic communications sector and its infrastructure (2023)

Main points

- BEREC expressed **reservations** about mandatory financial contribution from CAPs to ISPs in the form of SPNP (other forms, e.g. funding mechanism would have to be assessed in detail)

Possible effects

- Competition
 - competitive **disadvantages** for **small** ISPs/CAPs (less bargaining power)
 - increase in bargaining power of ISPs (termination monopoly)
- End-users
 - **Higher prices for content subscriptions** (cost pass-on)
 - Could **effect SMEs**, if large CDNs/cloud services had to pay and pass-on higher costs
- Innovation
 - Incentive to limit innovation to remain below the threshold of a “large traffic generator”
- Open Internet
 - Mandatory fees could limit the **rights/obligations provided by Art. 3(1) and 3(3)** of the Regulation (EU) 2015/2120
 - Unequal fees would probably **not satisfy equal treatment obligation** (Art. 3(1))



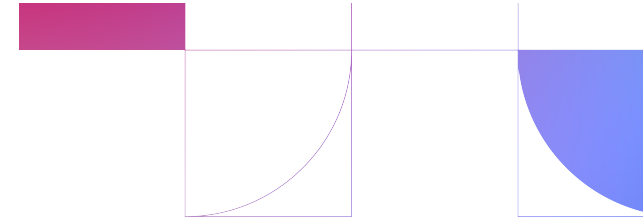
BEREC report on the IP interconnection ecosystem (2024)

Scope of the IP-IC report

- Update the 2017 BEREC report on IP-IC practices
- Re-evaluate conclusions from 2017
- Assess current status of and developments in the market since 2017
- Prospective analysis of the trends until 2030 (if data available)
- Limit scope to the IP-IC ecosystem → not replicate the debate on a “fair contribution by all digital players”

➤ *BEREC Work Programme 2023, section 2.8.*

Milestones



- Aug.-Oct. 2023 • Quantitative data gathering exercise
- Sept.-Oct. 2023 • Workshops with invited stakeholders
- June 2024 • Launch of the public consultation on the draft IP-IC report
- December 2024 • Publication of the final IP-IC report