

BEREC on Net Neutrality

Net Neutrality - What's in a Name?

- All electronic communications passing through a network is to be treated **equally**, independent of:
 - (i) *content*
 - (ii) *application*
 - (iii) *service*
 - (iv) *device*
 - (v) *sender address*
 - (vi) *receiver address*
- Article 8 (4) (g) of the Framework Directive: "*promoting the ability of end users to access and distribute information or run applications and services of their choice*".

BEREC on Net Neutrality



- great interest in this subject since the very establishment of BEREC, continuation of the work of ERG;
- several Expert Working Groups dedicated to Net Neutrality;
- will continue to closely monitor the evolution of Internet services.

BEREC Projects on Net Neutrality

The projects undertaken to date *evaluate the situation* and *examine the application* of the revised EU legal framework:

- **Transparency guidelines** – detailed, comparable and understandable information about the traffic management practices of the ISPs to be provided to the consumers.
- **Traffic management investigation** – snapshot of what is happening in the field at present.

ONGOING PUBLIC CONSULTATIONS

- **QoS Guidelines** - assessing "degradation of service" and how to intervene when deemed necessary.
- **Competition issues & NN** - economic analysis on which practices may cause harm to the end users and under which conditions.
- **IP interconnection & NN** - overview of IP interconnection markets and economic relationships between operators in the context of Net Neutrality.

Transparency Guidelines

Twofold approach by NRAs, that should be effective in COMPETITIVE MARKETS:

- **DIRECT:** ISPs make information transparent to end users directly (*required by the Framework*)
 - Accessible
 - Understandable
 - Meaningful
 - Comparable
 - Accurate

} information about the service
- **INDIRECT:** third parties (such as comparison websites) make the information understandable for end users

Traffic Management Investigation (1)

Requested by the European Commission.

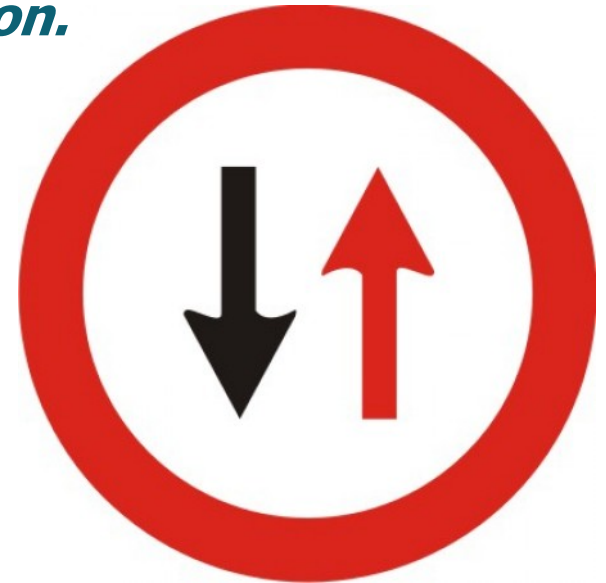
Scope:

1. Assessment of practices

- Blocking/throttling of P2P or VoIP traffic
- Other occurrences of blocking/throttling
- Congestion management
- Other specific types of measures

2. Quantification of practices

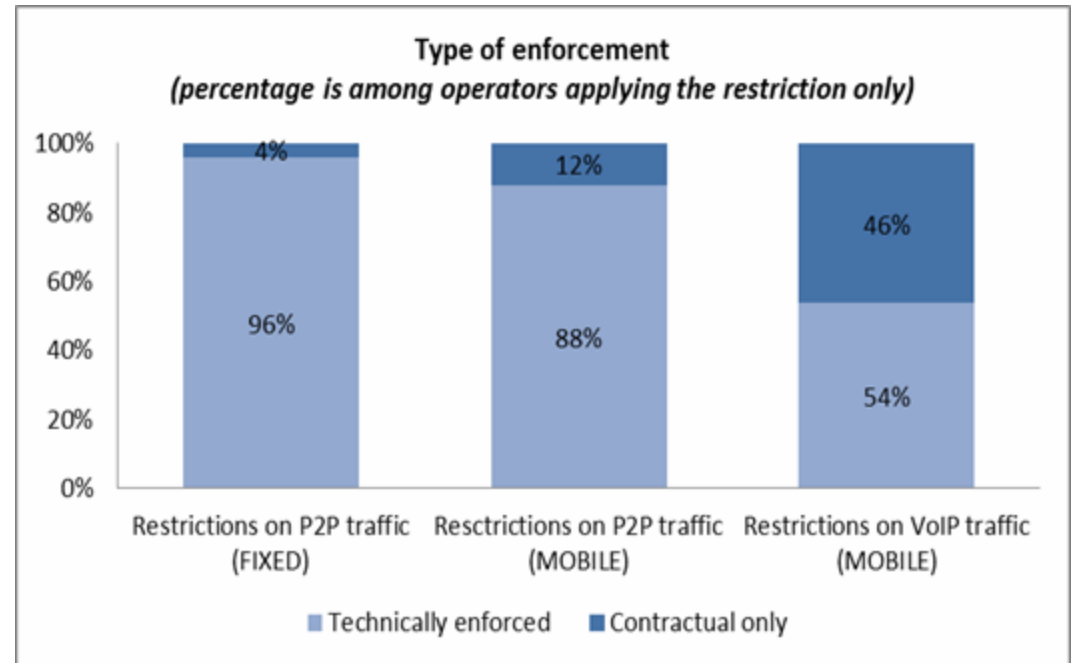
- Number of operators applying main types of practices
- Number of Internet access subscribers affected by operators' practices (provisional)
- Cross-country aggregated statistics for the most frequent practices, in order to represent the relatively contrasted situation across Europe



Traffic Management Investigation (2)

Conclusions:

- A majority of ISPs offers Internet access services with no application-specific restrictions, yet specific practices (blocking, throttling of peer-to-peer traffic or VoIP) could create concerns for end users.
- At least 20% of mobile Internet users in Europe experience some form of restriction on their ability to access VoIP services



Quality of Service in the scope of Net Neutrality

Scope: The guidelines advise NRAs on when and how to exercise powers to impose minimum QoS requirements on operators in order to prevent traffic degradation. They provide guidance to NRAs on how to assess the nature of traffic management practices, and how to reflect the particular context of the national market in question.

Conclusions:

- The BEREC draft guidelines do not give straightforward answers; rather, they provide guidance for NRAs to assess the severity of a situation by considering the practice itself and also in the context of the market.
- When it comes to defining what is a reasonable or unreasonable practice by an ISP, and whether an NRA should intervene by imposing minimum QoS requirements, the draft guidelines provide several criteria of assessment which enable NRAs to perform a regulatory evaluation of the situation.

**Important to take into consideration >
national circumstances**

Differentiation Practices and Related Competition Issues in the Context of Net Neutrality

Scope: The report examines which differentiation practices applied to the Internet access service may or may not, in principle, harm the interests of end users and have a negative impact on competition and innovation, both in electronic communications markets (“networks”) and in content application and services markets (“content”)

Conclusion: In most cases, competition could avoid potential negative effects of differentiation practices on the Internet.

Some conditions are nevertheless needed in retail markets:



- Downstream markets are effectively competitive.
- Awareness of end users through **transparency**.
- The ability of end users to switch and avoid differentiation practices.
- Caution is needed, as the result will depend on the balance between individual valuation of content, switching costs and network effects.

IP Interconnection in the Context of Net Neutrality

Scope: The focus of the paper is on the wholesale level of interconnection between ISPs and other intermediaries in the Internet value chain. It analyses how deviations from net neutrality may or may not be reflected at the interconnection level governing transmission of packets across the Internet as a collection of different networks (an Autonomous System).

Conclusions:

- The market has developed very well so far without any significant regulatory intervention.
- Disruptions in IP-interconnection due to disputes between ISPs potentially lead to a situation where not all destinations of the Internet may be reached (rarely).
- Constant changes occur in the respective markets along the value chain. NRAs need to better understand these markets.
- Depending on Member States' respective situations, NRAs may take different approaches: some countries may consider data-gathering exercises useful whereas most others do not consider them appropriate unless concrete problems or requests occur.
- Any measure could potentially be harmful, so it should be carefully considered.

Main Findings of BEREC so far (1)

NRAs objective: promoting competition to the benefit of end users, enabling the long-term development of networks and services through innovation and the development of the most efficient technical and business models.

- While not providing a guaranteed delivery of data, **the best effort approach** of the Internet does not necessarily imply low performance.
- **The IP interconnection market** has developed very well to date without any significant regulatory intervention.
- **The separation of network and application layers** is a characteristic feature of the best effort Internet, and has enabled innovation and growth.
- While **traffic management** and differentiation practices are not intrinsically harmful, they are nonetheless capable of being used for questionable purposes or in an inappropriate manner.

Main Findings of BEREC so far (2)

- **Providing information** on any restrictions is mandatory – the information must be understandable and comparable for end users to exercise choice and accurate enough for NRAs to monitor ISPs' practices.
- The situation is different in **different Member States** and BEREC is proposing general criteria to enable NRAs to evaluate these practices on a case-by-case basis in their respective markets.
- Given the complex and evolving nature of the Internet, detailed **prescriptive rules** do not seem appropriate at the moment.

BEREC's conclusions

- **Competition** is expected to discipline operators and ensure the best offers for consumers, but this critically relies on effective transparency and the ability of end users to easily switch service providers.
- Both NRAs and end users should be able to **monitor** the performance of the Internet access service and of the applications used via that Internet access service.
- Where competition and transparency are inadequate or insufficient to address concerns, existing **regulatory tools** should enable NRAs to address net neutrality related concerns for the time being.
- BEREC is committed to the open Internet and will continue to closely monitor the evolution of the market and seek to ensure that NRAs are able to respond swiftly and effectively to any future net neutrality related developments.

Thank you for your attention!



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