Net Neutrality Guidelines

Volker Sypli (BNetzA), Ahmed Aldabbagh (Ofcom), Ben Wallis (Ofcom), Frode Sørensen (Nkom)

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What is BEREC?

• **Body of European Regulators for Electronic Communications**
• Successor to European Regulators Group (ERG), established in 2002 as advisory group to the EC

**Main role**

• Assists the EC and the national regulatory authorities (NRAs) in implementing the EU regulatory framework for electronic communications
• Provides advice on request and on its own initiative to European institutions
Guidelines background and next steps

• Implementation of European Net Neutrality Rules by National Regulatory Authorities (NRAs)
• Guidelines not about creating new rules; rather, about providing guidance on the regulatory implementation of existing rules
• Draft Guidelines are currently under public consultation (until 18. July)
• Final publication of the BEREC Guidelines by end of August
• In the future BEREC will review and update the Guidelines as and when it considers it to be appropriate
• BEREC workprogram foresees the development of measurement methodologies for monitoring of QoS and NN regulations (NN assessment toolkit)
Transparency requirements

Guidelines set out best practices which NRAs should follow

- Information, for consumers and otherwise, should be easily accessible, accurate, meaningful, comparable

- Information should cover:
  - Any traffic management measures used, and any impact on the end-user
  - Complaint-handling procedures
  - Data caps
  - Speeds (different metrics depending on fixed and mobile)

- Guidelines provide high-level definitions of speeds (minimum, maximum, normally available, advertised speeds)
Traffic management (TM)

- ‘Traffic management’ = the way traffic is forwarded in networks
- As long as traffic management is done independently of applications and end-users, the traffic is normally considered to be treated equally
- As a second step, the Regulation allows “reasonable traffic management” which may be used to differentiate between “categories of traffic”
- As a third step, the Regulation describes three specific exceptions which are allowed under stricter conditions
Reasonable and exceptional TM

- **Reasonable traffic management**
  - Categories of traffic could e.g. be defined by reference to application layer protocol or generic application type, but only in so far as:
    - i. this is linked to objectively different technical QoS requirements
    - ii. applications with equivalent requirements are handled in the same category
    - iii. the justification given is relevant to the category of traffic in question
  - NRAs should ensure such measures do not monitor specific content

- **Exceptional traffic management**
  - a) Compliance with other laws
  - b) Preservation of network integrity and security
  - c) Congestion management measures
Specialised services

Examples that may be considered specialised services:

- VoLTE (high-quality voice calling on mobile networks)
- Linear (live) broadcasting IPTV services with specific quality requirements
- Real-time remote health services

Specialised services must meet requirements of:

- Necessity – are they necessary to meet requirements for a specific level of quality?
- Capacity – is network capacity sufficient that quality of internet access services is not degraded?
Role of the regulators

- Supervision
  - Monitoring contract information, commercial practices, traffic management practices and specialised services
  - By means of assessment of practices in the market, technical measurements, information-gathering

- Enforcement, e.g.
  - Requiring ISPs to deal with degradation of Internet access services
  - Requiring ISPs to cease or revise problematic traffic management practices
  - Requiring ISPs to cease providing specialised services in absence of sufficient capacity for Internet access services
  - Imposing fines on ISPs
Technical Challenges for Regulators

- Specify common set of measurement methodologies
  - Allowing comparable results
  - Assessment of contracted quality (Internet access as a whole)
  - Measurement parameters and measurement reference points
  - Applicable to any access technology
Technical Challenges for Regulators

▪ Assessing traffic management methods and possible NN conflicts
  ➢ Detecting deliberate throttling of applications versus temporal congestion
  ➢ Different treatment of categories of traffic within Internet access services, strategies implemented in ISPs‘ networks
  ➢ Effects on end-to-end quality of applications
  ➢ Influence of different protocols
  ➢ Source of “throttling“ - client, server, network
Technical Challenges for Regulators

- Specialised services versus Internet access
  - Assessing whether network capacity is sufficient to provide specialised services in addition to any internet access services provided
  - Detection of possible degradation of Internet access quality
  - Long-term supervision of Internet access versus specialised services
Thank you!

Tomorrow’s IPPM WG meeting:
BEREC NN QoS overview