DIGITAS institute

Response to the BEREC consultation on Guidelines on the implementation by National Regulators of European net neutrality rules

18 July 2016

The response has been endorsed by:

- Agenda Open Systems d.o.o.
- Aksioma – Institute for Contemporary Art, Ljubljana
- Beletrina – Academic Press
- COKS – Slovenian Open Source Competence Centre
- Info House – Institute for Privacy and Access to Public Information
- Infonet Media d.d.
- Institute go6
- Kanal A d.o.o.
- NSIOS – National Council of Disabled Persons' Organisations in Slovenia
- POP TV d.o.o.
- Pro Plus d.o.o.
- ZPS – Slovene Consumers' Association
- Aleš Špetič, Former Slovenia's Digital Champion
- Alja Isaković, Founder of Europe Code Week
- Dušan Caf, Former Chairman of Slovenia's Electronic Communications Council
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Executive Summary

This document constitutes the intervention of the Digitas Institute and the signatories, who endorsed the document, to the BEREC's public consultation on the draft Guidelines on the implementation by National Regulators of European net neutrality rules.[1]

Our response is focused on zero-rating, traffic management and specialised services. BEREC has managed to clarify and balance net neutrality safeguards against the competition and investment incentives of various economic interest groups. However, in our opinion, there are still a few outstanding issues that need to be solved.

Agreements on commercial and technical conditions and the characteristics of internet access services (IASs) such as price, data volumes or speed, and any commercial practices conducted by internet service providers (ISPs), leading to differential (i.e. discriminatory) pricing including zero-rating, limit end-users rights and choice, and pose a threat to competition.

There has been significant debate around the world concerning differential pricing and zero-rating. In Slovenia zero-rating posed a threat to both users and competitive content and application providers (CAPs), especially local. After zero-rated products had been forbidden, the mobile ISPs significantly increased data caps for the benefit of users. The level playing field also improved for CAPs.

Lessons learned from net neutrality regulation in Slovenia are important also from other aspects. The Slovenia's net neutrality law (the Electronic Communications Act of 2012) was not very clear on the issue of differential pricing, including zero-rating. In addition, the National Regulatory Authority (NRA) — the Agency for Communication Networks and Services (AKOS) — did not pay much attention to the enforcement of net neutrality law. AKOS failed to lay down the implementation guidelines on net neutrality as envisaged by the Electronic Communications Act. It also did not initiate any proceedings against the ISPs breaching the net neutrality law on its own initiative.

AKOS started the proceedings only after receiving a formal complaint filed by the national consultative body for electronic communications (SEK). According to SEK, zero-rated products limited consumers' choice and distorted the market, especially by privileging international CAPs accessing the local content market through a privileged state-owned incumbent.

In the regulatory proceedings AKOS established that four ISPs breached the law by providing zero-rated products. It issued decisions but selectively banned different zero-rated products, both by the scope of individual decisions and by the time of issuing them. The arbitrariness of AKOS's decisions influenced the market by allowing the state-owned incumbent a privileged position, which through its exclusive content deals distorted the local market for CAPs.

The ISPs appealed against the AKOS's zero-rating decisions and the outcome is still uncertain due to unclear law and lack of net neutrality implementation rules.

Despite long-lasting litigations, adoption and enforcement of the Slovenia's net neutrality law had positive effects for consumer welfare. Data caps have substantially increased since early 2015 after issuance of regulatory decisions banning zero-rating.

Concerning the issue of differential pricing, in our opinion, supported by evidence and experience from Slovenia, the Guidelines need to provide first and foremost legal certainty and a harmonised

[1] BEREC (2016, June 2). Draft BEREC Guidelines on implementation by National Regulators of European net neutrality rules, BoR (16). Retrieved from http://berec.europa.eu/eng/document_register/subject_matter/berec/public_consultations/6075-draft-berec-guidelines-on-implementation-by-national-regulators-european-net-neutrality-rules

application of the Regulation concerning open internet access[2] throughout the European internal market. They should also restrict harmful commercial practices, like certain forms of differential pricing including zero-rating by predictable, bright-line rules that would oblige the NRAs to enforce those rules. The present draft Guidelines unfortunately fail to deliver this and rely instead on a case-by-case approach that is likely to cause lengthy ex-post reviews, potential litigations, enormous competitive distortions and severe interference in consumer choice.

Traffic management is another outstanding issue, where net neutrality is endangered. The Regulation defines the principles of traffic management, reasonable traffic management measures and exceptions to them.[3]

Traffic management shall be application agnostic, applied equally to all applications. Exceptions that differentiate among specific categories of traffic (i.e. traffic classes) can only be applied if congestion problems cannot be addressed by application agnostic traffic management measures, and only for as long as necessary.

In our view the Regulation does not allow for regular application of traffic management differentiating among specific categories of traffic (i.e. class based traffic management). Despite this fact, certain NRAs, like AKOS, may already promote class based traffic management, which pose significant risks for both users and CAPs, and may hamper performance of applications and services.

The class based traffic management measures are less transparent. The monitoring and assessment of such measures is timely and costly, and correspondingly the same applies to potential regulatory actions.

BEREC should clarify the Guidelines in order to prevent narrow definitions of traffic management that could be used to discriminate among different types of applications. Traffic categories differentiation should also be based on objective service requirements such as sensitivity to latency, jitter, packet loss or bandwidth requirements.

Specialised services are also a controversial issue. The ISPs have lobbied fiercely to lift up restrictions on differential pricing, traffic management and specialised services. BEREC has been under pressure from the industry to weaken the Guidelines. The pressure on BEREC has mounted after the publication of the 5G manifesto.[4]

There are two outstanding issues with the Guidelines regarding the specialised services. The first one is concerned with the rules for classification of services as specialised. There is a tendency in the industry to qualify applications and services that can function over the open internet as specialised services requiring quality optimisation.

Another worrying issue is related to the capacity requirements of specialised services. Instead of requiring capacity upgrade in order to provide specialised services, the Guidelines allow for deterioration of end-user's capacity and therefore general quality of IAS. This is especially

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[2] Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R2120&from=EN

[3] Idem, pp. 8-9, Article 3(3).

[4] A group of Europe's 20 major telcos (2016, July 7). 5G Manifesto for timely deployment of 5G in Europe. Retrieved from http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=16579

critical in networks, where extra capacity for the provision of specialised services cannot be provided, such as xDSL access networks.

BEREC should define bright-line rules that would prevent reclassification of applications and services that can operate over the open internet and don't need optimisation as specialised services. With such rules ISPs will not be able to provide preferential treatment of applications and services, that can normally operate over the open internet.

BEREC should also align the Guidelines with the Regulation and protect the availability and general quality of IASs. In this way BEREC would ensure a level playing field for all actors, being ISPs or CAPs.

Introduction

The Digitas Institute welcomes the opportunity to comment on the draft BEREC Guidelines on the implementation by National Regulators of European net neutrality rules[5] (»*the Guidelines*«) open to public consultation from 6 June 14:00 (CET) to 18 July 14:00 (CET) 2016.[6]

BEREC has done an excellent job with the Guidelines by reducing uncertainties left over by the legislators, the European Parliament and the Council, in the Regulation.[7] It has managed to substantially clarify and balance net neutrality safeguards against the competition and investment incentives of various economic interest groups, being that IASs or CAPs.

In our opinion, however, the Guidelines still contain a few outstanding issues that need to be solved. We primarily focus on zero-rating as a form of differential pricing, but also briefly tackle other issues, such as traffic management and specialised services.

Zero-rating

Lessons learned from Slovenia

Slovenia was the second European country and amongst the first in the world that enshrined the concept of network neutrality into a national law in 2012.[8] Zero-rating was one of the cornerstones of country's net neutrality regulation as the Electronic Communications Act of 2012 prohibited zero-rating. However, the prohibition was not as explicit as initially proposed by the Government as the industry fiercely opposed to the adoption of net neutrality rules. Its efforts were partially successful and resulted in watering down of provisions related to differential pricing. In response to lobbying by the industry, the National Assembly in the second reading removed an explicit prohibition of price discrimination from Article 203, paragraph 5.[9]

Soon after the net neutrality provisions came into force in January 2013, mobile ISPs started offering zero-rated services that included primarily music and video streaming, and cloud storage.[10] Several

[5] BEREC (2016, June 2). Draft BEREC Guidelines on implementation by National Regulators of European net neutrality rules, BoR (16). Retrieved from http://berec.europa.eu/eng/document_register/subject_matter/berec/public_consultations/6075-draft-berec-guidelines-on-implementation-by-national-regulators-european-net-neutrality-rules

[6] BEREC (2016, June 6). Public consultation of draft BEREC Guidelines on implementation of net neutrality rules. Retrieved from http://berec.europa.eu/eng/news_consultations/ongoing_public_consultations/3771-public-consultation-on-draft-berec-guidelines-on-implementation-of-net-neutrality-rules

[7] Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R2120&from=EN

[8] Caf, D. (2015, November 12). National approaches to Zero-Rating — Slovenia. Internet Governance Forum 2015, João Pessoa, Brazil.

[9] Caf, D. (2014, December 5). Zero-Rating Violates Slovenian Net Neutrality Law. Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology [Web log post]. Retrieved from http://blog.caf.si/2014/12/zero-rating-violates-slovenian-net-neutrality-law.html

[10] Ibidem.

blog posts on net neutrality and zero-rating in Slovenia were written[11],[12],[13] — a few in English and more in Slovenian along with analytical texts.

A major problem identified by our team was a lack of effective competition in the mobile communications market, which has been dominated by two strong mobile network operators (MNOs). The domination was reinforced in 2014 in a big bang spectrum auction, when they strengthened their position in terms of spectrum holdings by acquiring 89 % of the total spectrum offered in the auction. Their combined spectrum holdings were 84 % of total spectrum available. The third MNO had 10 % and the fourth only 6 % of total spectrum holdings. The retail market structure followed a similar pattern and Slovenia's mobile communications market has been amongst the most contracted in Europe.

Regular data caps offered by ISPs in 2013 and 2014 were rather small and ISPs seemed to collectively set low volume caps. On the other hand zero-rated products, where the traffic generated by ISPs' own or their partners' services is not counted against the end-users' monthly volume data caps, provided much higher and in some cases literally unlimited data allowances. This resulted not only in harmful discrimination amongst users, but also in market distortions as zero-rated offers were highly anti-competitive from the CAPs' point of view.

The Slovenia's net neutrality law (the Electronic Communications Act) was not very clear on the issue of zero-rating. In fact it banned zero-rating rather indirectly. That was probably why AKOS initially did not pay any attention to zero-rating. More importantly, it did not pay much attention to the enforcement of net neutrality at all and also failed to lay down implementation guidelines on net neutrality as envisaged by the Electronic Communications Act. AKOS did not initiate any proceedings against the ISPs breaching the net neutrality law on its own initiative.

SEK examined abusive and presumably illegal business practices of mobile ISPs and filed a complaint to AKOS and the Competition Protection Office (CPO) in July 2014.

The CPO warned against net neutrality rules enforcement and rejected a request filed by SEK for an investigation into a breach or alleged breach of competition law. In a response, issued after consultation with AKOS, it emphasised that zero-rating was likely beneficial for consumers and warned against a linguistic interpretation of net neutrality provisions in the Electronic Communications Act. The CPO also advised AKOS that any regulatory measure should take this into account, be proportional and focus primarily on internet traffic transparency. It should be noted though that the CPO's opinion was based on dubious facts (like outdated data) and presumptions.[14]

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[11] Caf, D. (2014, December 5). Zero-rating violates Slovenian net neutrality law. Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology [Web log post]. Retrieved from http://blog.caf.si/2014/12/zero-rating-violates-slovenian-net-neutrality-law.html

[12] Caf, D. (2015, January 25). Telekom Slovenije and Si.mobil found in breach of net neutrality. Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology [Web log post]. Retrieved from http://blog.caf.si/2015/01/telekom-slovenije-and-simobil-found-in-breach-of-net-neutrality.html

[13] Caf, D. (2015, February 22). Another win for net neutrality advocates in Slovenia: AKOS issues new decisions limiting zero-rating Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology [Web log post]. Retrieved from http://blog.caf.si/2015/02/another-win-for-net-neutrality-advocates-in-slovenia-akos-issues-new-decisions-limiting-zero-rating.html

[14] Caf, D. (2014, January 25). Telekom Slovenije and Si.mobil found in breach of net neutrality. Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology [Web log post]. Retrieved from http://blog.caf.si/2015/01/telekom-slovenije-and-simobil-found-in-breach-of-net-neutrality.html

Despite the CPO's opinion AKOS started an investigation and issued first decisions banning zero-rating in January 2015[15] and the rest in the following months. Unfortunately, it selectively banned different zero-rated products, both by the scope of individual decisions and the time of issuing them. By doing that it influenced the market by allowing the state-owned incumbent to zero-rate the European Champions League, HBO GO and its proprietary services while prohibiting competitive ISPs and CAPs from offering and launching zero-rated content, applications and services.

The ISPs appealed against the AKOS's zero-rating decisions and the outcome is still uncertain due to unclear law and lack of net neutrality implementation rules, which AKOS did not prepare. Surprisingly, the ISPs did not appeal against arbitrariness by which the regulator constrained the market, although a restriction of the market by regulatory instruments is illegal.[16]

Zero-rated products offered by mobile ISPs limited consumer choice, reduced consumer welfare and distorted competition. The market was also distorted by international CAPs accessing the local content market through a privileged state-owned incumbent.

Zero-rating ban was enforced two and a half years after the adoption of the net neutrality law. This had immediate positive effects on consumer choice and welfare as well as on retail market competition, especially for CAPs. The adoption and enforcement of net neutrality rules have proven to have positive effects on consumer welfare. Data caps have substantially increased since early 2015 after issuance of regulatory decisions banning zero-rating.

The leading two MNOs strained net neutrality advocates' patience again at the end 2015 when they started blocking tethering in certain offers. AKOS again did not act.[17],[18]

Due to positive effects of net neutrality law, despite its slow enforcement, Slovenia was not satisfied with the Regulation concerning open internet access, as it was not clear about zero-rating. Slovenia expressed concerns that by overruling its legislation and weakening net neutrality rules, particularly a ban on zero-rating, their positive effects would be diminished. It feared that new arrangements would result in a two-tear internet: slower »best effort« lanes and fast lanes with quality of service prioritisation provided for a surcharge. In its position, It also stated that allowing zero-rating was a wrong response to competitive challenges the European industry was facing in the global digital

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[15] D. Caf (2015, January 25). Telekom Slovenije and Si.mobil found in breach of net neutrality. Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology [Web log post]. Retrieved from http://blog.caf.si/2015/01/telekom-slovenije-and-simobil-found-in-breach-of-net-neutrality.html

[16] Prevention of the restriction of competition act (ZPOmK-1) (OJ RS, No 36/08, 40/09, 26/11, 87/11, 57/12, 39/13 – Decision of Constitutional Court, 63/13 – ZS-K, 33/14 in 76/15), Part VII. Retrieved from (unofficial English translation) http://www.varstvo-konkurence.si/fileadmin/varstvo-konkurence.si/pageuploads/ZPOmK-1-consolidated_version.pdf

[17] Caf. D. (2015, December 31). AKOS defends Telekom, which breach net neutrality (in Slovenian). Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology [Web log post]. Retrieved from http://blog.caf.si/2015/12/akos-v-bran-telekomu-ki-krsi-nevtralnost-interneta.html

[18] Caf. D. (2016, March 5). Unbearable lightness of net neutrality in Slovenia (in Slovenian). Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology [Web log post]. Retrieved from http://blog.caf.si/2016/03/neznosna-lahkost-slovenske-internetne-nevtralnosti.html

market. At the Council Slovenia therefore voted against the Regulation.[19] In the European Parliament, all Slovenian MEPs but one also voted against the Regulation.

The market structure

As we could see, Slovenia's mobile broadband internet access market has been highly concentrated with two strong market players. This gives ISPs with dominant market power the incentive and ability to use differential pricing methods such as zero-rating to bias IASs in favour of their own interests, services and models of control on the expense of new competitors and end-users. Vertical integration, as in the case of the state owned incumbent, could even magnify those concerns. Similar observations have been reported by regulators in the US and India.[20]

The structure of the broadband internet access markets across the EU varies considerably, as does the structure of the firms within them. The questions of market concentration and the levels of vertical integration play an important role in incentives and ability of wireline and wireless operators to use content, service and pricing discrimination in the service of maintaining and/or expanding market power.[21]

However, as the recent research by Alissa Cooper and Duncan Brown of the Oxford Internet Institute shows, net neutrality issues are not related solely to oligopolistic or monopoly markets. Their research reveals that with greater competition net neutrality issues do not go away, neither for subscribers nor for those designing applications and services for the internet. Net neutrality therefore should not be seen as hinging on monopoly or tight oligopolistic markets. Their work suggests that even in countries with strong retail level competition concerns with gate-keeping power, especially through the use of technical standards to design specialised service platforms, are not ameliorated.[22],[23]

On the other hand, according to analyses carried out by the consultancy firm Rewheel, MNOs that operate in markets defined by a tight oligopoly »severely restrict the supply of mobile internet gigabytes by imposing artificial capacity constraints.«[24]

The BEREC draft Guidelines

Based on Slovenia's experience and supported by evidence and regulatory practice, especially in the US and India, zero-rating may be harmful in general. But even more so if the regulatory rules are not

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[19] Council of the European Union (2015, September 29). Draft Regulation of the European Parliament and of the Council laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent, and amending Directives 2002/20/EC, 2002/21/EC and 2002/22/EC and Regulations (EC) No 1211/2009 and (EU) No 531/2012 (first reading), Statement by the Republic of Slovenia, 2013/0309 (COD). Retrieved from http://data.consilium.europa.eu/doc/document/ST-12279-2015-ADD-1-REV-1/en/pdf.

[20] Klass, B., Winseck, D. et al. (2016, June). There ain't no such thing as a free lunch: Historical and international perspectives on why common carriage should be a cornerstone of communications policy in the Internet age. Submitted before the Canadian Radio-television and Telecommunications Commission. Telecom Notice of Consultation CRTC 2016-192, Examination of differential pricing practices related to Internet data plans, p. 57. http://www.cmcrp.org/wp-content/uploads/2016/04/CMCRP_Intervention_to_TNC_CRTC_2016-192_Jun2016.pdf

[21] Idem.

[22] Idem, p. 58.

[23] Cooper, A. & Brown, D. (2015). Net neutrality: Discrimination, competition, and innovation in the UK and the US. ACM Transactions on Internet Technology, 15(1). Retrieved from http://ora.ox.ac.uk/objects/uuid:eb91ed23-7159-401d-b0fc-5f5a1ab14910

[24] Rewheel (2016). Tight oligopoly mobile markets in EU28 in 2015, pp. 99-104. http://dfmonitor.eu/

clear. A lack of bright-line rules and case-by-case assessments may lead to arbitrariness in NRAs decisions which may have negative impacts on the markets and lead to further fragmentation of the internal market.

BEREC in the Guidelines missed the opportunity to prohibit differential pricing in general and zero-rating in particular. In Slovenia, the law was not clear enough about the prohibition of various forms of differential pricing. That caused regulatory uncertainty, which was reinforced as AKOS failed to lay down net neutrality implementation guidelines as envisaged by the law. Without bright-line rules, even when the NRA banned zero-rating, it did that inconsistently, favouring a state-owned incumbent and international CAPs. The ISPs later appealed against the NRA's decisions, but even in one year and a half the administrative court has not yet ruled in those cases.

In our opinion, the Guidelines should prohibit all forms of harmful differential pricing (including zero-rating). BEREC should follow examples of India, the Netherlands, and conditionally Slovenia, where net neutrality laws have done so. More specifically, the Guidelines should prohibit all forms of application-specific differential pricing.[25] It should also ban any form of differential pricing or zero-rating for a fee, where CAPs pay to have their content zero-rated, as this may lead to two-sided markets.

As seen in Slovenia, various forms of zero-rating and differential pricing, without bright-line rules and with arbitrariness of NRA's decisions, enable ISPs to restrict user choice and distort competition between both ISPs and CAPs, thus violating the net neutrality principle, which is the goal of the Regulation and the rights of end-users.

We welcome a ban on practices involving technical discrimination in the current Guidelines. We also welcome a significant level of details on the issue of zero-rating. The Guidelines lay down many important factors, which are crucial in the context of a case-by-case approach. As EDRi also noted in its Policy Analysis, the criteria are incomplete as they lack the criteria covering the detrimental effect of zero-rating for a fee. This type of zero-rating is particularly harmful as it enables the creation of two-sided market that invariably favours incumbent ISPs, especially vertically integrated, incumbent CAPs, increases the costs of market entry, and stifles innovation.[26]

In our opinion, the Guidelines fail to provide both sufficient safeguards and predictability regarding the legality of differential pricing offers. The assessment of the legality on a case-by-case basis will result in diverse implementation and enforcement throughout 31 NRAs (28 current EU Member States, Iceland, Lichtenstein and Norway), which will lead to fragmentation of the internal market.

As seen in Slovenia, regulatory uncertainties lead to undesirable outcomes. Regulatory arbitrariness and long lasting litigations are the least desirable. A case-by-case approach, as proposed by the draft Guidelines, will result in diverse implementation and create lasting legal uncertainty, for both ISPs and CAPs.

In addition to legal uncertainties, the case-by-case approach will require extensive monitoring, increase costs of regulatory actions, and result in complex, costly and time-consuming litigations. This is especially critical in EU Member States like Slovenia, where legal frameworks for challenging regulatory decisions or settling disputes are highly inefficient.[27]

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[25] Differential pricing is a type of pricing strategy in which a product or a service is charged differently based on various parameters, e.g. ISPs charging different prices for traffic from certain applications in a class than for others in the same class, or charging different prices for traffic from different classes of applications.

[26] EDRi (2016, June 22). Policy Analysis of BEREC Draft Guidelines, p. 6.

[27] Lanvin, B., Dutta, S. & Baller, S. (Eds.) (2016). The Global Information Technology Information Report, 2016. World Economic Forum. Retrieved from http://www3.weforum.org/docs/GITR2016/WEF_GITR_Full_Report.pdf

The regulatory unpredictability regarding commercial practices will reduce the ability of startups to attract investment and hence stifle innovation. ISPs and wireline and wireless network operators may face the same problem, as we have already seen in Slovenia, where investors in rural broadband networks precondition their fundings with regulatory predictability.

We therefore urge BEREC that instead of defining a framework for a case-by-case assessment of commercial practices, it defines bright-line rules and prohibit all harmful types of commercial practices such as differential pricing, which also includes zero-rating.

Traffic management

The Regulation states that ISPs »shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used.«[28]

The Regulation then defines »reasonable« traffic management measures, which shall be »transparent, non-discriminatory and proportionate, and shall not be based on commercial considerations but on objectively different technical quality of service requirements of specific categories of traffic.« Importantly, such measures »shall not monitor the specific content and shall not be maintained for longer than necessary.« ISPs shall not engage in traffic management going beyond these measures, when providing internet access services.[29]

As stated by the Regulation, ISPs »shall not block, slow down, alter, restrict, interfere with, degrade or discriminate between specific content, applications or services, or specific categories thereof, except as necessary, and only for as long as necessary. Exceptions to the reasonable traffic management shall apply only under specific circumstances, defined by the Regulation, and only for as long as necessary. These exception are (a) compliance with legal obligations, (b) preservation of network integrity and security, and (c) prevention of impending network congestion and mitigation of the effects of exceptional or temporary congestion.[30]

Traffic management shall be application agnostic, applied equally to all applications. In our opinion, the Regulation is clear that exceptions to application agnostic traffic management (as defined in Article 3(3), subparagraph 2), which differentiate among specific categories of traffic (i.e. traffic classes), based on objectively different quality of service requirements of the traffic, can only be applied if congestion problems cannot be addressed by application agnostic traffic management measures. Such measures shall only apply for as long as necessary.

In our opinion, the Regulation does not allow for regular application of traffic management differentiating among specific categories of traffic (i.e. class based traffic management). Despite this fact, certain NRAs may promote class based traffic management, with AKOS being one of them.[31]

Traffic management measures that differentiate among classes of traffic pose significant risks for both users and CAPs. ISPs may distort and harm competition e.g. by misclassifying applications (even if unintentionally) and discriminating encrypted or anonymised traffic. Users, especially entrepreneurs,

[28] Regulation, Article 3(3), subparagraph 1.

[29] Regulation, Article 3(3), subparagraph 2.

[30] Regulation, Article 3(3), subparagraph 3.

[31] AKOS (2016, June 25). QoS implementations in existing and upcoming fixed broadband networks. White paper, draft III.

small businesses and start-ups, may have difficulties getting the right classes of services that meet their needs. Th Digitas Institute team has emphasised these concerns on several occasions.

Class based traffic management measures are less transparent and may hamper performance of applications and services. The monitoring and assessment of such measures is timely and costly, and correspondingly the same applies to potential regulatory actions required. There are also risks for individual users as they may be limited in utilising the capacity of their IASs.

We urge BEREC to clarify the Guidelines in order to prevent narrow definitions of traffic management that could be used to discriminate among different types of applications. Traffic categories differentiation should also not be based on application types but rather on more independent and objective service requirements such as sensitivity to latency, jitter, packet loss or bandwidth requirements.

Specialised services

The Regulation sets out the freedom of ISPs and CAPs to provide »specialised services«, which is a short expression, used in the Guidelines, for »services other than internet access services which are optimised for specific content, applications or services, or a combination thereof, where the optimisation is necessary in order to meet requirements of the content, applications or services for a specific level of quality.«[32]

ISPs and CAPs are free to offer specialised services only when requirements as laid down in the Guidelines are met. The Regulation defines the safeguards for the provisioning of specialised services[33] and various conditions for such services to be met.[34]

The Guidelines define criteria for assessing services to qualify as specialised with respect to sufficient network capacity for specialised services in addition to IAS, potential detriment of the availability or general quality of IAS, and potential replacement for IASs. The Guidelines clarifies what qualifies as a specialised service and requirements to be met for the provisioning of such a service.

BEREC makes it clear that the goal of specialised services cannot be to circumvent the non-discrimination provisions of the Regulation. However, we fear that the rules defined by BEREC are not sufficiently clear. There is certainly a tendency in the industry to qualify applications and services that can function over the open internet as specialised services requiring quality optimisation.

We urge BEREC to define bright-line rules that would prevent reclassification of applications and services that can operate over the open internet and don't need optimisation as specialised services. With such rules ISPs will not be able to provide preferential treatment of applications and services, that can normally operate over the open internet.

Another worrying issue in the Guidelines is related to the capacity requirements of specialised services. Instead of requiring capacity upgrade in order to provide specialised services, the Guidelines allow for deterioration of end-user's capacity and therefore general quality of IAS.

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[32] Regulation, Article 3(5).

[33] Idem, subparagraph 1.

[34] Idem, subparagraph 2.

This is especially critical in networks, where extra capacity for the provision of specialised services cannot be provided. In xDSL access networks end users have already experienced cannibalisation of their internet capacity by specialised services such IPTV. In our opinion the BEREC's Guidelines in this respect contradicts the Regulation which clearly states that specialised services may be offered or facilitated, only if the network capacity is sufficient to provide them in addition to any IASs. Such services shall not be usable or offered as a replacement for IASs, and shall not be to the detriment of the availability or general quality of IASs for end-users.

We urge BEREC to align the Guidelines with the Regulation and protect the availability or general quality of IASs. In this way BEREC would ensure a level playing field for all actors, being ISPs or CAPs.

5G dilemma

During an EU public consultation on the future deployment of 5G mobile technology, closed on July 11, a coalition of Europe's largest telecommunication companies and industrial conglomerates — from Vodafone to Siemens — sent the European Commission a »5G Manifesto.«[35] According to the Open Rights Group and other digital rights advocacies the document is *»standard policy lobbying fare, describing the untold wonders that 5G's low-latency hyper-connectivity will deliver: such as self-driving cars, remote healthcare, smart grids and immersive media; while asking for leadership, massive public funding and the softening of regulations.«*[36]

The Industry's policy offensive is focused on the Guidelines. According to the Open Rights Group, the main argument from industry is that BEREC's rules would hamper the development of the concept of 5G network virtualisation (so called »network slicing«), which is a key feature of 5G networks, allowing to create virtual separate networks using the same physical infrastructure and to accommodate specific needs of business models with enhanced levels of service assurance and guarantees. These sliced networks are aimed at »industry verticals« such as transport, energy, health and others.[37]

On the other hand the 5G manifesto does not explain why »specialised services«, regulated as proposed by the Guidelines, would not make network virtualisation possible. The lobbyists' manifesto only generally threatens that investments will be delayed unless the EU and Member States find a way to »reconcile the need for Open Internet with pragmatic rules that foster innovation.«

In our opinion, the guidelines also create the right foundation for the roll-out of 5G technology by ensuring that high internet speeds and low latency are delivered in a sustainable and neutral way to the benefit of the European people and economy.

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[35] A group of Europe's 20 major telcos (2016, July 7). 5G Manifesto for timely deployment of 5G in Europe. Retrieved from http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=16579

[36] Ruiz, Javier (2016, July 11). Telcos threaten to pull 5G investments if EU net neutrality rules are not watered down. Retrieved from https://www.openrightsgroup.org/blog/2016/telcos-threaten-5g-unless-net-neutrality-rules-watered-down

[37] Ibidem.