

# Net Neutrality

## How European Rules can Foster Innovation: 6 Recommendations

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- ▶ Currently, the European Parliament and the Council are negotiating a compromise on the remainders of the Commission's „Connected Continent“ proposal. Triologue negotiations focus on the regulation of roaming services and of internet traffic.
- ▶ Taking both the Parliament's and the Council's stance as points of departure, this ceplnput deals with the „net neutrality“ issue. It investigates how EU net neutrality rules are best shaped to guarantee innovation.
- ▶ We extend the focus of the European discussion by pinpointing at some elements of the upcoming US net neutrality regulation and conclude with 6 recommendations to EU policy makers.

## Recommendations

**Recommendation 1:** **Abstain from net neutrality rules altogether and support the application of EU competition law and existing ex-ante access regulation.** Thought might be spend on finding ways to guarantee that end users are able to easily switch the internet service provider (ISP) upon a change in their traffic management.

Alternatively, as **second best recommendations** we plead for the following changes to the current positions of EP and Council in trialogue negotiations:

**Recommendation 2:** **Avoid** ISPs having to overprovision as a result of **excessively limiting** their possibility to conduct **congestion management**. Congestion management should be possible for temporary or for exceptional peaks in traffic. ISPs should be able to invest in broadband deployment where it is of most advantage to society. Overprovisioning endangers this.

**Recommendation 3:** **Strengthen consumer choice by at least allowing** consumers to conclude (cheaper) internet access contracts with ISPs which entail **blocking or slowing-down**. Given transparency, there is no convincing reason to prohibit this. It might be an alternative to volume caps and could result in cheaper internet access as it would help limiting the cross-subsidisation of heavy-users in the internet.

**Recommendation 4:** **In principle, enable zero-rating and other "commercial practices" by ISPs.** This does not pose a competition problem, as long as the vertically integrated ISP does not abuse monopoly power in neither the market for internet access nor for the service in question.

**Recommendation 5:** **Allow ISPs to allocate the existing costs of data transfer to content service providers (CSPs) which produce large amounts of data in the open internet.** It is efficient to allocate these costs to CSPs producing this data. Not doing so will raise costs for end users, regardless of whether they consume large amounts of data.

**Recommendation 6:** **Delete or weaken the provision that specialised services must not (materially) affect open internet traffic.** Although it cannot be excluded that specialised services negatively affect open internet traffic, hardly any ISP will have an incentive to allow this to happen in a lasting manner, as it would disturb its internet access customers. At the same time, specialised services have a great potential for growth and are very likely to increase the European Union's global competitiveness. This, as well as the fact that data traffic is piloted over private (not public) network infrastructure, should lead us to shape a friendly business environment for specialised services.

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## 1 Introduction

In the upcoming weeks, the European Parliament and the Council are set to reach a compromise on the remainders of the Commission's "Connected Continent" proposal.<sup>1</sup> Triologue negotiations will focus on the regulation of roaming services and of internet traffic.

Taking both the Parliament's<sup>2</sup> and the Council's<sup>3</sup> stance as points of departure, this ceplInput deals with the "net neutrality" issue. In a repeated attempt to cool down an overly passionate and ideological debate, this paper investigates how EU net neutrality rules are best shaped to guarantee innovation. We internationally frame the European discussion by pinpointing at some elements of the US net neutrality debate and conclude with recommendations to policy makers in the Parliament and the Council for a first and a second best outcome of the triologue negotiations.

## 2 What the Debate is about

Currently, there is no European legal definition of "**net neutrality**". The Body of European Regulators for Electronic Communications (BEREC) defines net neutrality as equal treatment of all electronic communication in a network, regardless of content, application, service, device, sender and recipient.<sup>4</sup>

Technically, this equal treatment of data is guaranteed by the so-called "**best-effort principle**". This means that, within available resources, an Internet Service Provider (ISP) forwards all data as soon as possible, irrespective of the exact content of the data packages, their senders and receivers.

Nowadays, this strict equal treatment no longer exists, nor is it useful. ISPs regularly conduct **network management** in order to avoid **network congestion**. In doing so, ISPs explicitly treat data packages differently, depending on whether or not a data transfer delay impairs the quality of the service at hand.<sup>5</sup> Network management to avoid network congestion is not at the core of the net neutrality debate. In essence, it is Pareto efficient and de facto generates only winners (consumers of time sensitive services), given that in practice, the consumer experience of those consumers whose data traffic are delayed are not affected in a noticeable way.

What is very controversial is whether and to which extent ISPs should be able to conduct network management for purposes beyond avoiding network congestion. We distinguish between such conduct by ISPs in the "open internet" (where data is transported across networks) and on the ISPs own network.

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<sup>1</sup> COM(2013) 627 of September 11th 2013 Proposal COM(2013) 627 of 11 September 2013 for a 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

<sup>2</sup> P7\_TA(2014)0281, European Parliament legislative resolution of 3 April 2014 (1st reading)

<sup>3</sup> Council Document 6710/15, March 2nd 2015

<sup>4</sup> BEREC response to the European Commission's consultation on the open Internet and net neutrality in Europe, BoR(10) 42, 30. September 2010

<sup>5</sup> Whereas minor delays remain unnoticed for simple emailing or browsing, the quality of consumption of audiovisual services is very dependent on continuous data streams.

**Figure 1: Controversial ISP-Behaviour**

Network Management	
Open Internet	Own Networks
<ul style="list-style-type: none"> <li>• congestion management</li> <li>• blocking/slowing down</li> <li>• "Pay for Priority" for Content and Service Providers (CSP)</li> <li>• zero rating</li> </ul>	<ul style="list-style-type: none"> <li>• specialised services</li> </ul>

Source: cep

In the "open internet", such conduct might result in the **blocking** or **slowing down** of data by ISPs. A specifically contentious issue concerns the question whether Internet Service Providers (ISP) should be allowed to charge **Content Service Providers (CSP)** (such as Netflix or YouTube for example) for the data they intend to be distributed on ISPs' networks. In exchange, CSPs' data might be granted priority by ISPs ("**pay for priority**").

The opponents of "pay for priority" by CSPs argue that this would further strengthen already big CSP players such as Google and would negatively impact innovation on the internet, as small start-ups would be unable to pay for a prioritised treatment by ISPs. They criticise the practice of "**zero rating**", where ISPs do not charge consumers for data generated by specific applications, as this would hinder competition.

The advocates of "pay for priority" by CSPs argue that it should be possible to charge CSPs whose business model is dependent on transporting large volumes of data on ISPs networks, as their services occupy a significant share of ISPs network capacities. Charging CPSs would generate the financial means necessary to expand broadband networks.

On own networks, "**specialised services**" with an enhanced "**quality of service**" offered by ISPs to customers are a second controversial topic.

The opponents of "specialised services" criticise that introducing such a "fast lane" against payment may go to the detriment of traffic on the "open internet". Financially strong users would hence crowd out other users, which are left with ever slower internet traffic.

The advocates of "specialised services" point to an unmet and growing demand for high-quality digital services. This ranges from industrial applications (Industry 4.0, e-Health or e-Learning) to audiovisual services to end-consumers.

### 3 The Need to Regulate Net Neutrality

In the following, we examine in short the economic need for introducing regulation regarding net neutrality. We start with the theory of two-sided markets, as this is central to the analysis of the competitive situation on the internet market. We then analyse the need for regulating blocking by internet service providers (ISPs), pay for priority and zero rating practices and specialised services.

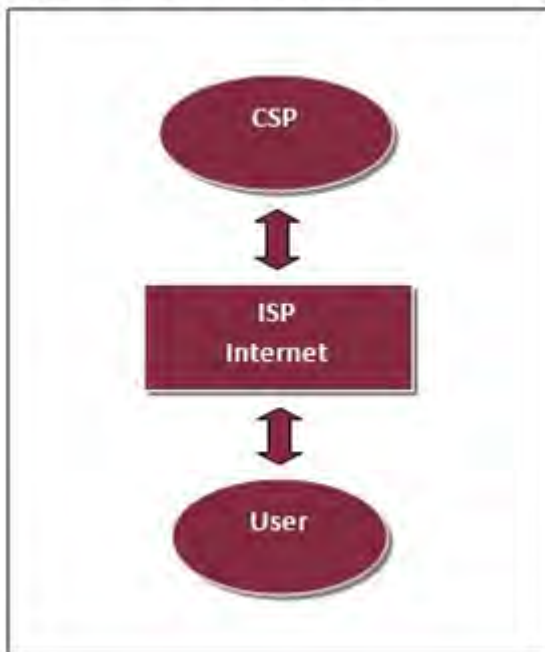
### 3.1 The Relevance of Two-Sided Markets

The Internet as a platform enables the meeting of providers of content or services (CSP) and users with a demand for this content and services. ISPs provide the connection between the two sides, by offering users access to the internet and thus to the CSP's content and services. At the same time, ISPs enable CSPs to reach users. In other words: The ISP acts as a platform bringing together users and CSPs.

An ISP's internet offer serves as a switch to users and CSPs for a quick and easy exchange of data. Due to the international nature of the internet, transaction costs (eg for research and communication) can be significantly reduced. This makes participation in the platform beneficial for both sides.

The provision of this platform causes cost for the ISP, since it has to offer and maintain the underlying physical infrastructure for data transmission, such as wires and ducts to the end customer. To

**Figure 2: Two-Sided Markets**



cover the costs of maintaining and expanding its platform and the underlying infrastructure, the ISP may charge an access fee both to customers as well as to CSPs. When setting this charge, the ISPs will consider network effects and demand patterns of both groups.<sup>6</sup>

As a matter of fact, a CSP's willingness to participate and to pay for access to the platform depends on how many end customers it can reach via the platform. At the same time, end users' participation depends on how many and which CSPs can be reached on the platform. There is hence a symbiotic relationship between both sides of the platform. A "chicken-and-egg problem" becomes clear: any side is unwilling to participate without the other side.<sup>7</sup>

Hence, it is worthwhile for ISPs to keep prices low for end users and thereby convince as many customers as possible to participate in the platform. This is so as a larger number of end users increases turnover for the ISP and also causes the ISP's platform to become more attractive to CSPs.

In this situation, CSPs would pay a relatively higher price for access to the ISP's platform as end users do.

This phenomenon is comparable to a shopping centre, where buyers and sellers of goods meet. The owner of the shopping centre offers retail space, which can be rented by sellers. The owner's rental income will depend on how many potential customers can be reached. In order to attract as many customers in the shopping centre and thus make it an attractive place for sellers, the owner of the shopping centre will demand only a very small or no access price and will offer, for instance, free parking. In essence, the seller pays a higher price for its presence in the shopping centre as the customer.

<sup>6</sup> See Berek, Differentiation Practices and related competition issues in the scope of net neutrality, BoR(12) 132 of November 26th 2012

<sup>7</sup> Rochet and Tirole (2002), Platform Competition in Two-Sided Markets, <https://ideas.repec.org/p/ide/wpaper/654.htm>

Pricing on any two-sided market is heavily influenced by the interdependency of various factors. The pricing structure on two-sided platform markets such as the internet does not mean, however, that CSPs must suffer a loss from participation in the platform because they pay a higher price to the ISP than end users. CSP are regularly financed by advertising placements and their product offers, so they observe different effects in setting pricing for advertising partners and end users. These effects in turn influence their willingness to pay the ISP. ISPs must themselves - in order to be able to offer their end users a large portfolio of CSPs - ensure that CSPs are willing to offer their services on their platform. Thus, no ISP has an incentive to charge excessively high fees to CSPs.

### 3.2 Blocking

Blocking of a CSP's content or services by an ISP causes a competition problem only when the ISP is a non-contestable monopolist. In all other cases, there is no need for regulation. What matters is the ISP's market power vis-à-vis end users. If the latter are able to change ISP in case of dissatisfaction with the ISP's blocking practice, this will discipline the ISP already ex ante.<sup>8</sup>

Given the user's possibility to change ISP, the special features of two-sided markets additionally limit ISPs' incentives to block content or services. By blocking, ISP must anticipate end users terminating their internet access contracts, which in turn makes the ISP less attractive to CSPs.<sup>9</sup>

This analysis is valid, irrespective of whether the blocked services compete with an ISP's own services. In the absence of market power of the ISP on retail markets, competition and end users' preferences will decide whether and in what form blocking is performed. A wide variety in ISPs' behaviour is possible: Some end users might place value on being able to access all services of the internet in full, while others might opt for an internet access offering only a limited range of services in exchange for a lower price.

**Hence**, blocking of content or services by an ISP causes a competition problem only when the ISP is a non-contestable monopolist. In all other cases, there is no need for regulation as competition for end-users will discipline the ISP's blocking behaviour.

### 3.3 Paying for Priority

Product differentiation by ISPs against CSPs may take the form of ISPs requiring an additional fee for faster and higher quality transfer of a CSP's data. This "paying for priority" scenario provokes a high degree of opposition from advocates of net neutrality. In the following, we consider whether "pay for priority" is worthy of regulation.

From a **competition perspective**, it is relevant to examine in particular whether ISPs possess "termination monopolies". In fact, any CSP can service end users only by gaining access to the end users' ISP network. In a static view, this means that each ISP by definition has the monopoly over access to end users. Deriving from this fact the necessity for regulatory action, is however erroneous.

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<sup>8</sup> See also: Berger-Kögler, B. und Kruse, J. (2011), Net neutrality regulation of the internet?, International Journal of Management and Network Economics, Vol. 2, No. 1, 2011

<sup>9</sup> Similarly: Dewenter, R. (2007): Netzneutralität, Diskussionspapier Nr. 74, Dezember 2007, Helmut-Schmidt-Universität, Hamburg

### **Bypassing a ban on „pay for priority“ through Content Delivery Networks (CDN)**

Paying for priority agreements between ISPs and CSPs goes back to a true demand, as is demonstrated by the rather common use of services such as Content Delivery Networks (CDN). CDNs are local servers set up between CSP and the end customer. They function as an intermediate storage and optimise the quality of data transfer through the shortened geographical distance to the end customer. Through reduced data transfer times they improve the "quality of experience" and thus strengthen both the willingness to pay of customers and customer loyalty. A number of CDNs already offers services to CSPs in the EU today.

As a result, CDN thus offer a similar service as "paying for priority" to ISPs.

Whether market power by ISPs (which would make regulation necessary) exists, depends on a number of factors. In the following, we distinguish two scenarios:

#### **Scenario 1: Powerful CSPs**

The two-sided markets mechanism disciplines ISPs and reduces their bargaining power. This is particularly evident when considering the relationship between ISPs and large, very popular CSPs. The vast majority of end users may not be willing to do without the services of such CSP. Hence, ISPs are de facto forced to pass data traffic of such CSP in the quality desired by the customer. Otherwise, they would have to reckon with extensive losses in its customer base, which would further reduce the attractiveness of the ISP to other CSPs. Given these effects, it cannot be excluded that large CSP are even able to charge ISPs for data traffic. As long as attractive substitutes to the CSP's services are not available, a demand-side substitution on the part of ISPs for large CSP services is not given.<sup>10</sup>

#### **Scenario 2: Less Powerful CSPs**

The situation is different when considering negotiations between ISPs and smaller CSPs. Here, ISPs are more likely to be able to charge CSPs for data traffic. Here as well, the question is one of demand-side substitution by end users. At first, a high substitutionability might strengthen

the bargaining power of the ISP against the CSP as the ISP can credibly expect few contract terminations by end-users upon no longer offering the services of a certain CSP (given that alternatives are present). However, ultimately a high demand-side substitution comes down to end users not insisting on consuming a specific service from a specific CSP. The low valuation of end users for specific services (or very intense competition due to substitutionability) is likely to go hand in hand with a very low willingness or possibility to pay on the side of the CSP. The risk of market power abuse by the ISP therefore appears to be low.

It is often brought forward that price discrimination by ISPs against CSPs might generate a negative externality, in that the innovative power of the internet would suffer when ISP require fees from CSPs for the faster or high quality transfer of data. Small start-up CSP would not have sufficient means and would accordingly not be able to reach end-users. This goes hand in hand with negative externalities in the form of welfare losses because consumer choice is reduced. It is therefore claimed that regulation is necessary to ensure that ISPs transfer data of all CSP without additional charges.

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<sup>10</sup> In this scenario, it would be more relevant to discuss market power of CSPs.



However, this argument ignores the following fact: ISPs have self-interest in promoting new technologies and services. Given the dynamics of two-sided markets, it is very important for ISPs to offer a large, diversified portfolio of applications. Only then they can gain and/or keep customers. It is hence realistic to expect ISPs to conclude special agreements with start-up CSP that take the initial uncertainties and the limited resources of the start-ups into account.

**Hence**, ISPs charging CSPs for data streams ("pay for priority") does not necessarily lead to a need for regulation. In most cases, the features of two-sided markets as well as demand substitution to prevent ISP market power - and thus the need for regulatory intervention. A need for regulation given innovation effects is also not given.

### 3.4 Zero Rating

Some ISPs are vertically integrated companies, i.e. they offer end users both internet access as well as services and applications on their own networks. A regularly criticised form of non net neutral behaviour consists in ISPs treating data streams which go back on their own services and applications preferentially, e.g. by not deducting data volumes of these services only from end users' data caps in respect of contracts with specified data caps.

Such a preferential treatment does not by definition constitute a problem that demands regulation. What is relevant is whether an abuse of a significant market power is present. In most cases, given the wide range of competing services and applications, an ISP will not have market power concerning these applications or services. Accordingly, a need for regulation does not exist from this perspective.

Consideration must therefore be given to the question whether the vertically integrated ISP possesses market power on the upstream market (for broadband access). In such case, a regulatory intervention would be justified as the ISP might then be able to transfer its market power from the upstream to the downstream market for services and applications. Such market power in the upstream market would be present when end users have no true choice in the selection of the ISP or if the termination of broadband contract would only be possible at the expense of very long periods or high switching costs.

**Hence**, zero rating and other forms of preferential treatment of own services by vertically integrated ISP should provoke regulatory intervention only given abuse of a significant market power by the ISP. The upstream market of broadband access for end users will be most relevant for this question.

### 3.5 Specialised Services

When offering specialised services, an ISP ultimately offers its end customers an additional service on its own network and connects this with the guarantee of a minimum quality of service. Whether this causes a non-neutral behaviour, first of all depends on how one defines "network". When not differentiating between the "open Internet" and "own ISP networks", it is obvious that specialised services are not net-neutral as they are treated preferentially over the traffic on the "open internet". When differentiating between both networks, the ISP's behaviour in the "open Internet" must not necessarily be non-neutral. This illustrates that specialised services can be used to circumvent a legal Net Neutrality duty in the "open Internet".

This however does not necessarily result in a need for regulation.

First: It is true that ISP may have an incentive to turn as much "open internet" traffic into specialised services traffic, as additional charges may apply to the latter. Given competition amongst ISPs, whether ISPs succeed in this will depend on the demand of the end users. A need for regulation exists only when market power allows ISPs to force end user to purchase specialised services.

Second, it cannot be excluded that specialised services might eventually go at the expense of traffic quality in the open Internet. Here as well, the need for regulation should be seen critically. It is likely that end users will change ISP if the open internet traffic quality deteriorates too much. ISPs hence are not interested in specialised services having too many negative effects on the open internet.

**Hence**, offering specialised services does not necessarily lead to a need for regulation. In most cases, the features of two-sided markets as well as competition amongst ISPs will prevent ISP market power - and thus the need for regulatory intervention. ISPs have no interest in allowing managed services to substantially deteriorate the traffic quality in the open internet.

### 3.6 Conclusion

On a closer look, none of the non net neutral behaviour of internet services providers (ISPs) provokes an obvious and direct need for regulation. An intervention may well be necessary in case of abuse of significant market power of ISPs. Such a scenario is (1) unlikely in the EU and (2) can well be coped with by applying EU competition law or existing ex-ante access regulation.

## 4 Positions of EP and Council at Trialogue Start

### 4.1 Congestion Management

The **European Parliament** allows internet services providers to intervene in internet traffic to "prevent or mitigate the effects of temporary and [not: "or"] exceptional network congestion provided that equivalent types of traffic are treated equally." Any intervention by internet service providers must be transparent, non-discriminatory and proportionate.<sup>11</sup>

The **Council** allows internet services providers to intervene in internet traffic to "prevent pending network congestion and mitigate the effects of exceptional or temporary network congestion, provided that equivalent types of traffic are treated equally."<sup>12</sup>

According to both Parliament and Council, any congestion related intervention by internet service providers must be transparent, non-discriminatory, proportionate and shall not be "maintained longer than necessary"<sup>13</sup>. The Council adds that they may not be anti-competitive<sup>14</sup>.

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<sup>11</sup> P7\_TA(2014)0281, Art. 23 (5), lit. d

<sup>12</sup> Council Document 6710/15, Art. 3 (4) lit. c

<sup>13</sup> Council Document 6710/15, Art. 3 (4) and P7\_TA(2014)0281, Art. 23 (5)

<sup>14</sup> Council Document 6710/15, Art. 3 (4)

This means:

(1) Both EP and Council recognise technical reality and explicitly allow for congestion management by internet service providers. By its wording, the Council sets a lower threshold for ISPs to intervene ("pending"; "exceptional or temporary congestion") than EP does.

*This is not irrelevant as internet traffic displays rather stable and expectable peak times, in which congestion is an issue. In a strict reading of the EP's text, this may not be "temporary and exceptional" and may hence not justify congestion management. The result would be either impaired consumer experience by congestion or inefficient network expansion by ISPs ("overprovisioning"). The inefficiency is caused by the additional and expensive infrastructure being necessary only in peak times, while congestion management as cheaper cost avoiding instruments remains unused.*

(2) For ISPs conducting congestion management, both EP and Council prescribe equal treatment within (yet undefined) classes of data traffic.

*We see a need to clarify what the Council means with anti-competitive **congestion management measures**. This is not clear, given that the Council on the one hand demands equal treatment of equal types of traffic and on the other had allows for zero rating practices by ISPs (see below).*

## 4.2 Blocking, Paying for Priority and Zero Rating

The **European Parliament** defines "net neutrality" as all internet traffic being treated equally. Internet service providers must respect this principle.<sup>15</sup> Although internet access contracts between internet services providers and end-users may entail data-caps or speed limits, the internet services providers may not block, slow down or discriminate content within these contractual limits for reasons other than congestion management.<sup>16</sup>

The **Council** does not define "net neutrality". It however sets out that end-users have to right to "access and distribute" via their internet service providers all data of their choice.<sup>17</sup> Internet access contracts between internet services providers and end-users may entail data-caps or speed limits<sup>18</sup>, but within these limits (and except congestion management), all "equivalent types of traffic" must be treated equally.<sup>19</sup>

The Council allows for "commercial practices" by ISPs, which may however not "significantly reduce end-user's choice in practice"<sup>20</sup> and may not limit the end-user's access and distribution right.<sup>21</sup>

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<sup>15</sup> P7\_TA(2014)0281, Art. 2 (12a) and Art. 2 (14)

<sup>16</sup> P7\_TA(2014)0281, Art. 23 (5)

<sup>17</sup> Council Document 6710/15, Art. 3 (1)

<sup>18</sup> Council Document 6710/15, Art. 3 (2)

<sup>19</sup> Council Document 6710/15, Art. 3 (4)

<sup>20</sup> Council Document 6710/15, recital 6

<sup>21</sup> Council Document 6710/15, Art. 3 (2)

This means:

Both EP and Council are very restrictive and do not allow ISPs to block or slow down any open internet content for reasons other than congestion management. Hence, "pay for priority"-practices, where content service providers (CSPs) would pay ISPs for a faster data-transfer would not be possible on the "open internet".

*Internet service providers' possibilities to offer end-users differentiated internet access contracts are unnecessarily restricted. Although variations in speed and data volume (and hence price) are explicitly allowed, by fully banning **blocking or slowing down**, EP and Council unnecessarily hinder end users, for instance, in purchasing cheaper internet access contracts which block specific (data intensive) applications.*

*Internet service providers may not charge content service providers (CSPs) for large data traffic and offer **priority** in exchange on the open internet. As a result, the costs of data pricing risk to be born directly by end-users (via volume cap contracts) and only indirectly (by content delivery networks if at all) by CSPs producing large amounts of data.*

*The EP leaves no room for **zero rating practices**. The Council's position allows for classifying zero rating as a "commercial practice" (and not as an intervention in traffic) which is tolerated within certain (unclear) borders. We applaud this, but call for a clearer wording as conflicts with the Council wording regarding anti-competitive ISP behaviour are likely.*

### 4.3 Specialised Services

The **European Parliament** defines specialised services as services that are optimised for specific content, applications or services and which are<sup>22</sup>

- provided over logically distinct capacity,
- relying on strict admission control,
- offering functionality requiring enhanced quality from end to end,
- not marketed or usable as a substitute for internet access service.

ISPs (and other providers) may offer specialised services only if the "network capacity is sufficient to provide them" in addition to internet access services [...] without negative consequences for the "availability or quality of internet access".<sup>23</sup> Moreover, ISPs may not discriminate between "functionally equivalent services".<sup>24</sup>

The **Council** does not offer a definition of specialised services but allows for ISPs (and other providers) to offer a "service other than internet access services" in a "specific level of quality". ISPs and other providers to the public may do so only if "sufficient network capacity" is available so that the "availability and quality of internet access" for other end-user is "not impaired in a material manner".<sup>25</sup>

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<sup>22</sup> P7\_TA(2014)0281, Art. 2 (15)

<sup>23</sup> P7\_TA(2014)0281, Art. 23 (2)

<sup>24</sup> id.

<sup>25</sup> Council Document 6710/15, Art. 3 (3)

Both Council and EP charge national regulatory authorities with guaranteeing the "continued availability of internet access services at levels of quality that reflects advances in technology". To guarantee this, they may impose minimum quality of service requirements.<sup>26</sup>

#### This means:

Both EP and Council seriously restrict the playing field for specialised services, by minimising their impact on "internet access services" (in the "open internet").

*The EP sets prohibitively high hurdles to **specialised services** by demanding a logically distinct capacity and by requiring the absence of any negative effects on internet access services. The Council interdicts a "material" impact only, but leaves unanswered what that may be. Rather faint-hearted, it leaves it up to national (!) regulatory authorities to define the possibilities for specialised services (in setting a minimum level for internet access). On a more general level, the distinction between the "open internet" and "other nets" (for specialised services) is very artificial. We see no convincing arguments for restricting specialised services to the benefit of traffic on the "open internet".*

## 5 The US Debate on Net Neutrality

### 5.1 Fundamental Differences between the US and the EU

Telecommunications regulation in the United States is fundamentally different from that of the EU. In the US, the regulatory practice of "local unbundling" (last mile) is largely unknown as access remedy. In practice, this limits competition and hence choice for broadband users in the United States. Often, only one DSL provider and/or cable provider (monopoly / duopoly) is available at a given location. Hence, in the US, market power of ISPs is substantially higher than in the EU, where users can typically choose from a number of broadband providers, as a consequence of access regulation.

As a result of the limited competition in the US, the disciplining function of two-sided markets mechanism is much weaker than in the EU. In a monopolistic and duopolistic structure, internet users can not change their ISP easily due to lack of alternatives. Thus, the ISP must not fear losses of revenue by the "migration" of customers.

Although these facts by themselves do not allow concluding that there is a necessity for net neutrality rules in the US, the case for regulation is much stronger than in the EU.

### 5.2 The FCC's Order

Following lengthy debates, the US regulatory agency FCC (Federal Communications Commission) released its Open Internet Order on March 12, 2015.<sup>27</sup>

The FCC decided to regulate internet access like a public utility, which is a precondition for the FCC to be able to adopt net neutrality rules. However, this decision is very controversial, with a number of stakeholders claiming that the FCC has overstepped its competence in doing so. A number of

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<sup>26</sup> Council Document 6710/15, Art. 4 (1) resp. P7\_TA(2014)0281, Art. 24 (1)

<sup>27</sup> Order FCC 15-24, released March 12, 2015; available at: [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-15-24A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1.pdf)

legal complaints have already been filed which question exactly this legal foundation of the FCC's order. It hence remains to be seen whether the FCC's order will remain valid at all.

In essence and very similar to the EU rules being discussed, the FCC introduces three "Bright Line Rules". ISPs may neither block nor slow down legal content nor may they engage in "paying for priority". These rules apply to both fixed and mobile broadband internet access.<sup>28</sup>

In its order, the FCC does not ban interconnection fees, which is a particularly sensitive issue in the US.<sup>29</sup> The FCC claims to "lack background" and to "watch, learn, and act as required, but not intervene now".<sup>30</sup>

The FCC seems to take a slightly less restrictive approach to specialised services ("non-BIAS Data Services"<sup>31</sup>) than the approach considered in the EU. Whereas the FCC does not define specialised services, it sees three typical characteristics for them:

- (1) they are not used to reach large parts of the Internet,
- (2) they are not a generic platform, but rather a specific "application level" service,
- (3) they use some form of network management to isolate the capacity used by these services from that used by broadband Internet access services.<sup>32</sup>

Typical examples for these specialised services are: heart monitors, energy consumption sensors, automobile telematics, certain e-learning applications but also IP-Video offerings.<sup>33</sup>

It is rather unclear at the moment which impact by specialised services on the "open Internet" the FCC is willing to accept. The FCC signalsises it will take action when specialised services "undermine investment, innovation, competition and end-user benefits" (which is very vague, given that specialised services may also foster innovation). OTT services over the internet should remain able to compete with other data services<sup>34</sup> (which is very vague, given that guaranteeing an increased service level should be the very added value of specialised services). Remaining vague here as well, specialised services should also not "cause harm to the open nature of the Internet".<sup>35</sup> The FCC however restrains from setting minimum quality levels for the open internet, as discussed in the EU.

### 5.3 Conclusion

Given fundamental regulatory differences between the US and the EU, the case for net neutrality rules is much stronger in the US than it is in the EU.

Especially regarding specialised services, the US net neutrality rules put forward by the FCC seem to be less restrictive than the rules discussed in the EU. Moreover, it remains to be seen, whether the legal foundation for the FCC's net neutrality order will stand up to scrutiny in court.

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<sup>28</sup> FCC Order, rec. 14

<sup>29</sup> Net Neutrality discussion gained momentum in the USA upon cable operators slowing down traffic generated by Netflix, a very successful online video platform. Cable operators insisted on Netflix paying more for interconnection.

<sup>30</sup> FCC Order, rec. 31

<sup>31</sup> BIAS stands for Broadband Internet Access Services

<sup>32</sup> FCC order, Rec. 209

<sup>33</sup> FCC order, Rec. 208

<sup>34</sup> FCC order, Rec. 210

<sup>35</sup> FCC order, Rec. 212

## 6 First and Second Best Recommendations

There is no convincing argument for introducing European net neutrality rules, which are valid for all internet service providers (ISPs). None of the non net neutral behaviour of ISPs provokes an obvious and direct need for regulation.

We cannot exclude that non net neutral behaviour by an ISP might cause problems in the future. This were the case upon abuse of a significant market power on the side of a ISP. This scenario is (1) very unlikely in the EU and (2) can be well dealt with by applying EU competition law and existing ex-ante access regulation.

### Our first best recommendation is hence to

(1) **Abstain from net neutrality rules altogether and to support the application of EU competition law and existing ex-ante access regulation.** Thought might be spend on finding ways to guarantee that end users are able to easily switch ISP upon a change in their traffic management.

Alternatively, as **second best recommendations** we plead for the following changes to the current positions of EP and Council in trialogue negotiations:

(2) **Avoid** ISPs having to overprovision as a result of **excessively limiting** their possibility to conduct **congestion management**. Congestion management should be possible for temporary or for exceptional peaks in traffic. ISPs should be able to invest in broadband deployment where it is of most advantage to society. Overprovisioning endangers this.

This is relevant at the following points in Parliament's and Council's documents: [EP:] Art. 23 (5), lit. d respectively [Council:] Art. 3 (4), lit c

(3) **Strengthen consumer choice by allowing** consumers to conclude (cheaper) internet access contracts with ISPs which entail **blocking or slowing-down**. Given transparency, there is no convincing reason to prohibit this. It might be an alternative to volume caps and could result in cheaper internet access as it would help limiting the cross-subsidisation of heavy-users in the internet. Relevant at: [EP:] Art. 23 (5) respectively [Council:] Art. 3 (4)

(4) **In principle, enable zero-rating and other "commercial practices"** by ISPs. This does not pose a competition problem, as long as the vertically integrated ISP does not abuse monopoly power in neither the market for internet access nor for the service in question. Relevant at: [Council:] Recital 6 and Art. 3 (2)

(5) **Allow ISPs to allocate the existing costs of data transfer to Content Service Providers(CSP) which produce large amounts of data in the open internet.** It is efficient to allocate these costs to CSPs producing this data. Not doing so will raise costs for end users, regardless of whether they consume large amounts of data. Relevant at: [EP:] Art. 23 (5) respectively [Council:] Art. 3 (4)

(6) **Delete or weaken the provision that specialised services must not (materially) affect open internet traffic.** Although it cannot be excluded that specialised services negatively affect open internet traffic, hardly any ISP will have an incentive to allow this to happen in a lasting manner, as it would disturb its internet access customers. At the same time, specialised services have a great potential for growth and are very likely to increase the European Union's global competitiveness. This, as well as the fact that data traffic is piloted over private (not public) network infrastructure, should lead us to shape a friendly business environment for specialised services. Relevant at: [EP:] Art. 23 (2) respectively [Council:] Art. 3 (3)

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