

NETFLIX

Input on BEREC's draft net neutrality guidelines

Introduction

Netflix welcomes the opportunity to provide its views on BEREC's draft guidelines ('draft guidelines') on the implementation by national regulatory authorities ('NRAs') of European net neutrality rules, also known as the Telecom Single Market regulation ('TSM').

The draft guidelines' focus on end-user rights is entirely correct because end-users, not ISPs, should decide which content and applications succeed online. However, some modifications are needed to ensure that the protections in the guidelines cannot be circumvented. With these modifications, end-users in Europe who want to watch internet video will be free to choose from any number of providers, without influence from their Internet Service Provider ('ISP').

Interconnection

BEREC's recognition that interconnection may "have the effect of limiting the exercise end-user rights" is essential to ensuring the guidelines are effective when implemented. Nearly all content requested from the internet must pass through an interconnection point before reaching the end-user, and ISPs have sole control of these access points.

Since entering the European markets in 2012, large ISPs have used their control over interconnection points to force Netflix to pay tolls to deliver traffic to the ISP's end-users. These tolls can come directly in the form of interconnection fees paid to the ISP, or indirectly through a transit provider that pays for interconnection. To force these payments, ISPs will refuse to increase capacity at settlement-free interconnection points, causing congestion that degrades video quality.

This means that an ISP's customers receive a poor experience despite paying for a high speed internet connection, which is explicitly for access to the *entire* internet. Refusing to upgrade capacity, and therefore limiting an end-user's ability to access certain content, is contrary to the end-user protections under Article 3(1) and the equal treatment requirement under Article 3(3).

Netflix has limited ability to resist the interconnection fees imposed by the largest ISPs¹, who control access to a significant portion of Netflix's members. Even though Netflix is a popular

¹ "The Commission's investigation confirmed that, ultimately, each of the routes that OTT providers can use to interconnect with the Parties' internet networks, thereby obtaining access to the Parties' broadband customers, are under the control of the Parties." *COMP/M.7000 - Liberty Global/Ziggo*. para. 369.

service, Netflix members are much more likely to switch to another video service (including the affiliated video services of the ISP) than switch ISPs when the Netflix service is degraded.²

Additionally, these fees serve no purpose other than providing a rent for the ISP, as ISPs have no incentive to use revenues from interconnection fees to build out network capacity or reduce rates for end-users.³

- Therefore, BERC should clarify that an ISP has an obligation to make necessary interconnection arrangements in order to meet the requests of its end-users, and modify the language of Paragraph 6 to read that “NRAs **should** take into account the interconnection policies and practices of ISPs [...]” and modify Paragraph 47 to include IP interconnection practices to the extent that they should not undermine the intention of Article 3(3).

Zero-rating and data-caps

As the draft guidelines note, agreements between ISPs and end-users with respect to data volumes (‘data-caps’) should not limit the exercise of end-user rights. However, data-caps necessarily have an impact on end-users’ rights because data-caps (especially low data-caps) discourage the use of online services.

Specifically, end-users are more likely to use legacy video sources when confronted with a low data-cap. This reduces demand for new internet video services, which may have a deleterious effect on internet expansion: increasing internet use -- and internet video use in particular -- drives demand for more abundant and faster internet access.

Fixed and mobile ISPs have touted data-caps as a means to manage congestion on their networks. But limiting how much data can be downloaded over a month is a poor mechanism to reduce congestion. Congestion is only a concern in the evening -- during “prime time” when people watch internet video, play video games, or use the internet to shop, send email, or chat with friends. But data-caps apply at all times of the day, and so they only indirectly deter consumers from using the internet at those peak times, and they unnecessarily deter consumers at off-peak times when there is no congestion to manage. This makes them questionable as a tool to manage congestion.

² For an example discussion, see pp. 255-264: van Schewick, Barbara. 2010. *Internet Architecture and Innovation*. Cambridge, MA: MIT Press.

³ “One might attempt to rehabilitate the argument [...] by noting that in a two-sided market the expectation would be that higher interconnection fees would lead to lower prices for subscribers, which would raise consumer welfare. We dismiss this second contention by noting that it is implausible that any increase in interconnection revenues [...] would be fully passed through to subscribers[.]” *Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership For Consent to Assign or Transfer Control of Licenses and Authorizations*, FCC-16-59, footnote 390.

ISPs also argue that data-caps allow for price discrimination: to charge different users different prices for use of the same fixed-cost network. From that perspective, data-caps are similar to the speed tiers common on fixed networks: consumers pay more for faster speeds or pay more for higher data-caps. The TSM and net neutrality rules around the world permit price discrimination on the basis of speed, but they also recognize that “fast lanes” for some online services would harm end-users and thus ban or limit them.

The same dynamics come into play with low data-caps: because of a low data-cap, an online service may need to pay an ISP to zero-rate its traffic to enable that ISP’s customers to access the online service. Such arrangements create an incentive for ISPs to maintain artificially low caps. Across the EU, mobile operators that zero-rate selected video services have data-caps that are half the size of operators that do not.⁴ This is counter to the narrative advanced by some ISPs that zero-rating plans promote investment and subsidize access to the internet.

Similarly, the Dutch ISP KPN doubled the size of its data-caps after it launched an internet video service, as KPN was unable to zero-rate its own video service under Dutch net neutrality rules.⁵ If KPN had been allowed to zero-rate its own service, then the ability for end-users to choose between KPN’s service and other online services would have been greatly diminished.

- As the draft guidelines note in Paragraph 45, influence to steer end-user choice by way of zero-rating increases with lower data-caps. The guidelines are also correct in stating that allowing the zero-rating of applications after an end-user has reached their data-cap would substantially impact end-user choice and competition.
- However, contrary to Paragraph 42, any ISP practice that reduces end-user choice *does* necessarily impinge end-user rights. The draft guidelines’ extension of “material” from Recital 7 to Articles 3(1) and 3(2) puts a vague, non-specific qualification on the prohibition on limiting end-user rights that is absent from the articles.

Specialised services

In our previous submission, we urged BEREC to provide clearer guidance on what constitutes a specialised service under Article 3(5). Overall, we remain highly skeptical of the value of specialised services that are incorporated into retail internet access services. As a category, it

⁴ “Mobile operators that zero-rate video in EU28 markets sell half as much gigabyte volume for €35 than mobile operators that do not.” *The state of 4G pricing – 1st half 2016*, Rewheel / Digital Fuel Monitor. http://dfmonitor.eu/downloads/1H2016_DFMonitor_fifth_release_11052016.pdf

⁵ “KPN doubled the mobile internet volume cap from 5 to 10 Gigabytes between November 2014 and February 2015 while keeping the price the same at €37.50 a month! Compared with January 2014, KPN offers now 5 times higher volume (10 Gigabytes versus 2) for a lower price.” *In the Netherlands, where zero-rating is banned, KPN just doubled (free of charge) the mobile internet volume caps to encourage a carefree usage of its online videos*, Rewheel / Digital Fuel Monitor. http://dfmonitor.eu/downloads/Banning_zerorating_leads_to_higher_volume_caps_06022015.pdf

makes more sense for telesurgery or emergency services, which are not mass-market applications of internet technologies.

We are aware of arguments that specialised services may be required for 4K video, and Paragraph 102 includes a similar suggestion. As one of the earliest and leading sources of 4K video content, we have been very successful in delivering 4K video over the internet. This benefits both end-users, who do not need to purchase additional services, software, or devices; and ISPs, who enjoy increased demand for faster internet access.

A few years ago, it could have been argued that delivering standard-definition video or high-definition over the internet would require specialised services. Today it is clear that not only is it possible to deliver both of those formats over the internet, but that doing so unlocks innovation and diversity to a degree that would have been difficult to imagine ten years ago. If industry and regulators had taken a different path -- towards specialised services -- it is unlikely that the same cycle of innovation, demand, and investment would have occurred.

Paragraph 109 suggests that linear IPTV services may qualify as specialised services in certain circumstances. That may be true, but it is worth observing that live streaming technology has steadily improved, and live streams of single events over the internet have reached more than 14MM concurrent viewers⁶. This is one example of how innovators may outpace the expectations of end-users and governments.

- Overall, BEREC should clarify that NRAs should intervene on an ex-ante basis to ensure that specialised services are only offered after ISPs have given objective evidence that the specialised service cannot be delivered effectively over the internet. In the case that an ISP's evidence is accepted, the NRA should periodically review its decision to account for improvements in internet technologies.
- Additionally, BEREC should clarify that once an application delivered over the internet has been shown to be technically and commercially successful, then that application should not be a candidate for a specialised service. This would include, at minimum, video-on-demand services.

⁶ "peak concurrent viewership [...] was 14 million" Worlds 2015 Viewership.
http://www.lolesports.com/en_US/articles/worlds-2015-viewership