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Publication date:
2021

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Discovery Research Portal](#)

Citation for published version (APA):
Andriychuk, O., Daly, A., & Gorecka, A. (2021). *Net Neutrality in New Times: Revisiting the Open Internet Regulation in the UK*. University of Strathclyde.

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Net Neutrality in New Times: Revisiting the Open Internet Regulation in the UK

September 2021

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This short report is based on research proposed and carried out by the authors, and funded by BT. Our collective aim is to revisit net neutrality as a policy issue and raise its profile on the tech policy agenda. This report reflects the authors' views only and does not necessarily reflect the views of BT.

1 MAIN POINTS

- There is very limited analysis of net neutrality rules in the UK and EU since they were introduced in 2015.
- There is general compliance with net neutrality rules, especially the prohibition on blocking (legal) content, applications and services.
- Zero-rating is a thorny issue for net neutrality rules – it is not prohibited per se but has fallen foul of national enforcement e.g. in the UK and CJEU decisions at the EU level.
- Content delivery networks (CDNs) are another thorny issue but we are not aware of any enforcement activity against them.
- Current net neutrality rules have not prevented the growth in power of digital intermediaries and platforms – but have net neutrality rules actually facilitated this situation?
- Could net neutrality rules be 'softened' e.g., to allow some commercial traffic management practices subject to general competition law rules and sector-specific regulation while still retaining the prohibition on blocking and actively slowing down traffic – could this still protect citizen and consumer interests, and ensure media pluralism?
- Do measures to tackle online 'gatekeepers' such as social media sites, e-commerce intermediaries, search engines, video sharing, messaging-, cloud computing-, digital advertising and OS service providers proposed in the EU's Digital Markets Act as well as digital undertakings with strategic market status as envisaged by the UK's Digital Markets Unit require a new approach to net neutrality?¹ Can such an approach be considered as a part of a

¹ Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) (2020). COM/2020/842 final. Available at: <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=COM%3A2020%3A842%3AFIN>; <https://www.gov.uk/government/collections/digital-markets-unit>

new pro-competition regime for digital markets currently being consulted on by the UK Government?

2 INTRODUCTION

In this report, we explore whether the current rules on net neutrality in the UK function as envisaged. We focus on the implementation of the EU's Open Internet Regulation² in the UK and prospects for net neutrality post-Brexit. This is timely given Ofcom's call for evidence on net neutrality issued in September 2021.³

While net neutrality attracted significant debate from the 2000s which heightened in the early 2010s before the implementation of the EU's Open Internet Regulation in 2015, it remains unclear how successful the Regulation has been in achieving its aims and objectives of promoting an open Internet. Furthermore, significant developments have occurred since 2015 including the increasing use and importance of content delivery networks (CDNs), the emergence of zero-rating practices and other changes in market and social dynamics such as widespread Internet of Thing (IoT) use and the transition to 5G which may not fully be covered by the Regulation.

This report attempts to fill the gap by exploring how the present EU net neutrality regulatory regime has been implemented, with a focus on the UK. We also take account of the UK's rupture with EU law in the form of Brexit, and explore possibilities for the UK to diverge in future net neutrality policy. Overall, we can see general compliance with net neutrality rules, especially those which prohibit the most egregious conduct such as the outright blocking of otherwise legal content or applications. Discriminatory traffic management practices are clearly addressed as a violation of net neutrality rules. However, certain zero-rating practices are permitted, and the Regulation has not, to our knowledge, been enforced against content delivery networks. Even if legal, some instances of zero-rating and CDNs may have similar outcomes to commercial traffic prioritisation. This as well as other changes in the regulatory landscape, prompt us to reconsider directions for net neutrality and further work on the topic.

Furthermore, the current regulatory situation may not accurately reflect the complexity of the emerging digital reality. The ongoing developments in the EU (such as the Digital Services Act, the Digital Markets Act and the Data Governance Act proposals) and the UK (including the current UK Government consultation on a new pro-competitive regime for digital markets; CMA Online platforms and digital advertising market study; the establishment of The Digital Markets Unit and The Digital Regulation Cooperation Forum) demonstrate the need for a critical revision and reconceptualisation of the current regulatory regime, mainly formulated in a more 'permissive' and 'light touch' era. Under the existing regime, the main potential obstacle to the Open Internet was identified at the side of the

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 OJ L 310, 26.11.2015, p. 1–18 (Open Internet Regulation).

³ Ofcom. (2021). Call for evidence: Net neutrality review [online]. Available at: https://www.ofcom.org.uk/consultations-and-statements/category-2/call-for-evidence-net-neutrality-review?utm_medium=email&utm_campaign=Ofcom%20launches%20call%20for%20evidence%20on%20net%20neutrality&utm_content=Ofcom%20launches%20call%20for%20evidence%20on%20net%20neutrality+CID_66ef943a58b1f231094e78178c82c8c5&utm_source=updates&utm_term=call%20for%20evidence%20on%20net%20neutrality [Accessed 7 September 2021]

Internet Service Providers (ISPs) and telcos. Under the emerging regulatory paradigm such a gatekeeping position is now extended – if not shifted – to the biggest Content and Application Providers (see e.g., the EU Digital Markets Act Proposal).

The current net neutrality rules have not prevented the transition of digital power to, and the exponential growth of, the new gatekeepers. But to what extent has net neutrality, especially prohibitions on commercial traffic management, actually facilitated this situation? More research and investigation are needed to underpin a new regulatory approach to regulating Internet markets, taking account of how competitive the relevant markets are, as well as fundamental rights and media pluralism. A new model could imply some ‘softening’ of net neutrality rules which could allow limited instances of commercial traffic management within the bounds of commercial transparency, public accountability, regulatory control and enforcement supervision.

3 WHAT IS NET NEUTRALITY?

There is no precise or universal agreement on the definition of net neutrality. Generally, its key objective is to ensure access to and non-discriminatory treatment of (legal) content, programmes and devices by ISPs.

There are three main themes which underlie the principle of net neutrality:

1. The protection of Internet openness’ e.g. attempts to prevent ISPs from wielding their power as gatekeepers in inappropriate ways such as blocking outright certain content, programmes or services.
2. Non-discrimination measures implemented to ensure that ISPs are constrained in their use of technologies such as deep packet inspection (DPI) to apply restrictions on users’ Internet access including blocking or slowing down certain programs and content, or conversely incentivising users’ consumption of certain programmes and content.
3. The protection of content, media pluralism and human rights, notably free expression.

4 THE EU’S OPEN INTERNET REGULATION

The EU introduced a binding framework for net neutrality in its aforementioned 2015 Open Internet Access Regulation. The main obligations and rights can be found in Article 3 and include:

- A right for end-users (both consumers and businesses such as content providers) to access content and use applications and equipment of their choice, so long as they are otherwise legal (Art 3(1));
- A prohibition on agreements between ISPs and end-users on the commercial and technical conditions and characteristics of internet access services (price, data volumes, speed) which

limit the end-user's right to access content and use applications and equipment of their choice (Art 3(2));

- An obligation on internet access producers to treat all traffic equally, without discrimination, restriction or interference except to implement 'reasonable traffic management measures' which are based on 'objectively different technical quality of service requirements of specific categories of traffic' (Art 3(3));
- Article 4 sets out a series of transparency obligations in internet access contracts on traffic management measures, quality of service limitations, and speeds

There are limited exceptions to rules against traffic management, including:

- the need to comply with EU law or national legislation (e.g. blocking illegal material) so long as the right balance is struck between fundamental rights involved (Case C-314/12, *UPC Telekabel Wien*);⁴
- addressing network congestion issues; and
- preserving network and equipment integrity and security including measures to ensure cybersecurity (Art 3(3)).

These rules apply to 'internet access services'; the Regulation also recognises a different category, which has come to be known as 'specialised services' (or 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'), to which these rules do not apply, so long as these specialised services do not impact detrimentally on internet access services (Art 3(5)). Permitting specialised services may facilitate innovation and flexibility, such as giving rise to e-health and streaming services currently, and new 5G enabled services in the future.

5 NET NEUTRALITY IN THE EU SINCE 2015

The Regulation takes precedence over national law in EU Member States and is directly applicable in them. (This included the UK until 2021 when it exited the sphere of EU law.) The Regulation is enforced by the national regulatory authority (NRA) in each EU Member State. The Body of European Regulators for Electronic Communications (BEREC), the EU level telecoms regulatory agency, is obliged to issue guidelines on net neutrality, supporting the NRAs on the implementation of the rules (Article 5(3)). As regards the regulatory aspect of net neutrality rules, NRAs in EU Member States are tasked with the enforcement of the Open Internet rules. They must take account of BEREC's guidelines on the Implementation of the Open Internet Access Regulation, which aim to ensure NRAs consistently apply the Regulation.

⁴ Judgment in Case C-314/12 *UPC Telekabel Wien GmbH v Constantin Film Verleih GmbH and Wega Filmproduktionsgesellschaft mbH*. Press Release (2014) [online] Available at: <https://curia.europa.eu/jcms/upload/docs/application/pdf/2014-03/cp140038en.pdf>. [Accessed 8 June 2021]

The European Commission also continues to monitor the application of the Regulation. Indeed, the Commission issued a report in 2019 which reviewed the Regulation and its implementation since 2015 and found that content application providers and end-users expressed “great satisfaction” with the current protection offered by the Regulation, and did not consider it necessary to amend the rules.⁵ The Commission concluded that overall the Regulation was working well and was effectively in promoting innovation and end-users’ rights, so there was no need to re-open it, but the Commission would continue to closely scrutinise developments in the market.

However, this apparent satisfaction with the Regulation masks two thorny issues, namely zero-rating practices and content delivery networks (CDNs). We discuss CDNs more below, but here concentrate on zero-rating practices, and which, if any, of these practices are incompatible with the Regulation. Zero-rating practices generally involve a telco not counting data being used by specific applications or services towards a data volume cap. Zero-rating practices can be controversial from a net neutrality perspective since they may result in certain services or applications being rendered more or less attractive to consumers; indeed, net neutrality rules in India prohibit zero-rating entirely.

Some guidance on how NRAs should address zero-rating practices can be found in BEREC’s Guidelines: a first set was issued in 2016, followed by an updated version in 2020.⁶ The only Court of Justice of the EU (CJEU) decisions on net neutrality also concern zero-rating practices, and they have featured prominently in Ofcom’s investigation and enforcement activity in the UK, which will be discussed further in the next section. Overall, there is no categorical prohibition on zero-rating practices as being incompatible with net neutrality, and zero-rating practices must be considered on a case-by-case basis.

BEREC’s 2020 Guidelines offer some further context to zero-rating practices’ compatibility with the Regulation:

- “zero-rating offer where all applications are blocked (or slowed down) once the data cap is reached except for the zero-rated application(s) would infringe Article 3(3)” (para 41)
- Zero-rating programmes which are open to all content and applications providers (CAPs) in a particular category e.g., all video streaming services are less likely to impact negatively on innovation and restrict end-user choice than the zero-rating of e.g., only one music streaming service – the more open the programme, the less likely it will give rise to concerns (paras 41a-42e).
- When assessing zero-rated offers/programmes, the NRAs are required to consider the extent to which the programme is open to all CAPs of that particular category and whether the T&Cs are transparent, non-discriminatory, reasonable and fair (para 42b). When assessing the terms for joining a zero-rating programme, the NRAs could consider various factors such as

⁵ European Commission (2019). Report from the Commission to the European Parliament and the Council on the implementation of the open internet access provisions of Regulation (EU) 2015/2120. COM/2019/203 final. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1557236522800&uri=CELEX%3A52019DC0203>

⁶ BEREC (2020). *BEREC Guidelines on the Implementation of the Open Internet Regulation*. [online] Available at: https://berec.europa.eu/eng/document_register/subject_matter/berec/regulatory_best_practices/guidelines/9277-berec-guidelines-on-the-implementation-of-the-open-internet-regulation [Accessed 5 Jun. 2021].

the extent to which the programmes are available, availability of contract details, the process for joining a programme, the technical and commercial conditions available to the CAPs.

- When conducting regulatory assessments of agreement or commercial practices like zero-rating, the aims of the Regulation ‘to safeguard equal and non-discriminatory treatment of traffic’ (Art 1), and to ‘guarantee the continued functioning of the internet ecosystem as an engine of innovation’ should be taken into account, along with Recital 7 which directs intervention against agreements or practices which ‘by reason of their scale, lead to situations where end-users’ choice is materially reduced in practice’ or which would undermine ‘the essence of the end users’ rights’; the ‘respective market positions’ of IAS and CAP providers should also be taken into account (Recital 7).

Zero-rating practices have formed the basis of the only CJEU decisions issued on the net neutrality rules: *Telenor Magyarország* in 2020, and then three cases from 2021 involving Vodafone and Telekom Deutschland.

In September 2020, the Court of Justice of the EU (CJEU) issued a significant decision in Joined Cases C-807/18 *Telenor Magyarország* & C-39/19 *Telenor Magyarország* on the compatibility of certain zero-rating practices implemented by a telco in Hungary, Telenor, with Arts 3(1) and 3(2) of the Regulation.⁷ The ‘zero tariff’ packages offered entailed that the use of certain applications did not count towards the main consumption of mobile data purchased by customers, and indeed customers could still use those applications once their main data allowance had been exhausted, and avoid any measures the telco was applying to block or slow down other traffic. The CJEU held that agreements whereby once the data volume has been used up, the customer only has unrestricted access to certain applications covered by a zero tariff are liable to limit the end-users’ rights in Art 3(1), but whether they do so and infringe Art 3(2) must be assessed on a case by case basis, in light of Recital 7 of the Regulation. The CJEU also considered that zero tariff packages such as these ones are liable to increase the customers use of the un-metered applications and decrease the use of the metered applications, and the more customers which use these packages, the more likely that the ‘cumulative effect’ of this will undermine end-users’ rights. Furthermore, any discriminatory measures applied to traffic must fall within one of the exceptions in Art 3(3), otherwise they will not be considered ‘reasonable’ and therefore not compatible with Art 3(3), and there is no need to assess the effect of such measures on end-users’ rights.

In the case at hand, the CJEU concluded that the measures blocking or slowing down traffic in addition to the zero tariff ‘make it technically more difficult, if not impossible, for end users to use applications and services not covered by that tariff’, that they were based on ‘commercial considerations’ rather than technical quality of service requirements, and that no evidence was presented that any of the exceptions in Art 3(3) applied, therefore the measures were incompatible with the Regulation. Here, the CJEU did not find zero-rating practice per se to be a violation of the net neutrality rules, but when combined with the traffic discrimination after the data volume was used for the non-zero rated services, this was an infringement.

⁷ Joint Cases C-807/18 *Telenor Magyarország* & C-39/19 *Telenor Magyarország*: Press Release, (2020). [online] Available at: <https://curia.europa.eu/jcms/upload/docs/application/pdf/2020-09/cp200106en.pdf>. [Accessed: 5 June 2021].

In the 2021 decisions, the CJEU considered the compatibility of various zero-rating offers available to German consumers from Vodafone and Telekom Deutschland in cases C-854/19, C-5/20 and C-34/20.⁸ Vodafone's zero tariff 'Vodafone Pass' packages were only valid within Germany (abroad, the data used in accessing the services covered by the packages was offset against the data volume from the basic package) and when the services were accessed via tethering, the data used was counted towards the data volume in the basic package. Telekom Deutschland offered a zero-rated add-on option for audio and video from TD's content partners and consumers accepted bandwidth limitations to a maximum of 1.7 Mbit/s for video streaming for all content (from zero-rated partners or other providers). The CJEU found that all of these violated net neutrality rules.

The CJEU in these cases uses quite broad language which suggests all zero-rating practices are incompatible with the net neutrality rules; but the cases could be read more narrowly, that only the practices under consideration are incompatible i.e.:

- Restrictions on tethering but not on the content being accessed via the mobile device itself, which would seem to be a clear infringement of the EU's net neutrality rules;
- Restricting a zero-rating offer to the territory of one EU Member State, which would also seem problematic from a roaming perspective;
- Limiting bandwidth when the zero-rated option is chosen, even if the limitation is for all content.

From the scenarios (although not the rhetoric) in the CJEU decisions and BEREC Guidelines we can see that zero-rating practices fall along a spectrum of legality vis-à-vis the EU Open Internet Regulation:

- If there is discriminatory traffic management involved, especially of non-zero rated traffic, this is likely to be an infringement unless a justification can be found;
- Zero-rating of only one programme or service in a category is more likely to be infringing than zero-rating all members of the category;
- Zero-rating which cannot be tethered is problematic;
- Zero-rating in one EU Member State which does not 'roam' is problematic;
- Limitations on bandwidth, even for all content, which apply only when a zero-rated option is activated are problematic;
- Agreements involving CAPs and IAS providers with strong market positions may be more suspect than agreements between those with weaker market positions especially if the agreements would impact negatively on end-users' choice and rights.

However, a broad reading of the decisions and the CJEU's language might suggest a greater prohibition on zero-rating practices in the EU; how these new judgements will be interpreted and followed by NRAs in the Member States remains to be seen.

⁸ Court of Justice of the European Union, Judgments in Cases C-854/19, C-5/20 and C-34/20 Vodafone and Telekom Deutschland Press Release (2021) [online]. Available at: <https://curia.europa.eu/jcms/upload/docs/application/pdf/2021-09/cp210145en.pdf> [Accessed 9 September 2021].

Another problematic practice is the use of content delivery networks (CDNs). CDNs allow large digital CAPs with the financial resources to do so to send their content more directly to end-users, avoiding Internet backbone networks, thereby facilitating higher speeds and reliability for their content compared to smaller, poorer sites and apps which need to use the conventional networks provided by others.⁹ Rather than striking deals directly with ISPs for their content to pass more quickly through ISPs' networks which would likely fall foul of net neutrality rules, CDNs facilitate the more direct – and much more efficient - provision of content to end-users through content providers' own or leased infrastructure,. Like zero-rating, CDNs do not appear to be illegal per se vis-à-vis the EU net neutrality regulation: according to BEREC, interconnection agreements such as CDNs are beyond the Regulation's scope, but:

Nevertheless, NRAs may take into account the interconnection policies and practices of ISPs in so far as they have the effect of limiting the exercise end-user rights under Article 3(1). For example, this may be relevant in some cases, such as if the interconnection is implemented in a way which seeks to circumvent the Regulation.¹⁰

However, we are unaware of any regulatory action being taken against CDNs on the basis that they circumvent the Regulation.

UK

The UK, then an EU Member State, implemented the Open Internet Regulation in domestic law through the Open Internet Access (Open Internet Regulation) Regulations 2016 (the 'Enforcement Regulations')¹¹ for which Ofcom was the designated UK NRA tasked with enforcement. On an annual basis, Ofcom was required to publish reports regarding their monitoring and findings.

Ofcom has released a series of annual reports since then. In its 2017 report, Ofcom set out its approach to assessing compliance with certain aspects of the regulations, focusing on residential services.¹² Ofcom's initial work suggested that there were 'no major concerns' about the openness of the UK internet and compliance with net neutrality obligations.

However zero-rating reared its head in the UK's enforcement context, as can be seen in Ofcom's 2018 report.¹³ Another issue that emerged was mobile telcos restricting the practice of 'tethering' i.e. the sharing of a mobile device such as a mobile phone's Internet connection with other devices. In the 2018 report, Ofcom noted that it had found several traffic management concerns and

⁹ Palacin, M., Oliver, M., Infante, J., Oechsner, S., & Bikfalvi, A. (2013). The Impact of Content Delivery Networks on the Internet Ecosystem. *Journal of Information Policy*, 3, 304-330. doi:10.5325/jinfopoli.3.2013.0304

¹⁰ BEREC (2015). *What is covered and protection by the regulation*. [online] Available at: <https://berec.europa.eu/eng/netneutrality/regulation/> [Accessed 24 June 2021]

¹¹ Open Internet Access (EU Regulation) Regulations 2016, (2016) [online] Available at: <https://www.legislation.gov.uk/ukxi/2016/607/contents/made> [Accessed: 5 June 2021]

¹² Ofcom. (2017). *Monitoring compliance with the EU Net Neutrality regulation: A report to the European Commission*. [online] Available at: https://www.ofcom.org.uk/data/assets/pdf_file/0018/103257/net-neutrality.pdf [Accessed 5 June 2021]

¹³ Ofcom. (2018). *Monitoring compliance with the EU Net Neutrality regulation: A report to the European Commission*. [online] Available at: https://www.ofcom.org.uk/data/assets/pdf_file/0026/115397/net-neutrality-report-2018.pdf [Accessed 5 June 2021]

opened an enforcement programme to learn about such practices. Ofcom considered a number of new zero-rating offers in the UK market, including one (Vodafone/Passes) which employed discriminatory traffic practices. Ofcom found that the aforementioned zero-rated offers did not create situations where the choice of consumers appeared to be 'materially reduced', but it did not exclude further investigation of the matter.

Ofcom's third annual report from 2019 contained information about a number of practices it had investigated as potentially violating net neutrality rules.¹⁴ One was an investigation of Three's restrictions of tethering within the EU and UK which resulted in Three removing these restrictions on terminal equipment. It also considered a number of zero-rating offers, and was in discussion with some telcos to ensure that their zero-rating offers adhered to net neutrality rules, in particular by not implementing commercial traffic management and by ensuring transparency about the services.

In Ofcom's most recent report, from 2020, impacts of the COVID-19 pandemic were included (para 1.5): overall Ofcom found an improvement of the fixed speed of IAS for consumers, despite the increase in network traffic during the pandemic (para 2.3).¹⁵ Ofcom again reviewed zero rating offers, indicating that they are increasingly popular (para 3.4). Ofcom initially reviewed a number of zero-rating offers, including EE Music and Video Passes and Sky Watch. It found the EE Music and Video Passes which zero-rate a number of apps in each category were unlikely to undermine end-users' rights, and instead seemed to be attractive to consumers who have already a subscription to such services. For Sky Watch, concerns were raised about the impact on end-user choice and the reinforcement of Sky TV's strong market position within the UK pay TV market. However, Ofcom considered that Sky Mobile only had a relatively small share of the mobile market and the offer had not had a material impact on the Sky application usage so Ofcom did not intend to take further action in relation to the offer.

During the COVID-19 pandemic, a number of mobile network operators (MNOs) indicated that they would grant free online access to NHS health information sites, and subsequently have agreed to remove data charges for access to websites supporting victims of domestic and sexual abuse. The UK Department of Education also considered offering zero-rated access to certain educational sites but ultimately abandoned the plan and instead targeted support for vulnerable schoolchildren by e.g. removing data limits for those who only had mobile internet access. Ofcom did not identify new concerns about the ISPs' traffic management practices' compatibility with the Regulation. During the pandemic, Ofcom liaised with ISPs to ensure that the traffic management was reasonable, and any network congestion was mitigated (para 3.28). In fact, in the UK, the ISPs 'did not report having to rely on exceptional measures, because major content providers, such as Netflix, YouTube, Amazon or Disney agreed to reduce high-definition video quality' (para 3.27).¹⁶

¹⁴ Ofcom. (2019). *Monitoring compliance with the EU Net Neutrality regulation: A report to the European Commission*. [online] Available at: https://www.ofcom.org.uk/data/assets/pdf_file/0018/156015/net-neutrality-report-2019.pdf [Accessed 5 June 2021]

¹⁵ Ofcom. (2020). *Monitoring compliance with the EU Open Internet Regulation: A report to the European Commission and BEREC*. [online] Available at: https://www.ofcom.org.uk/data/assets/pdf_file/0033/197709/net-neutrality-report-2020.pdf [Accessed 5 June 2021]

¹⁶ See also the call from the European Commission and BEREC for streaming services to cooperate with mitigating network congestion: <https://wayback.archive-it.org/12090/20210424215403/https://digital->

Ofcom also met with a number of mobile operators to discuss any practical applications of specialised services and how the Open Internet Regulation may apply, especially to 5G services and mobile edge computing (paras 3.32-3.33). Ofcom did not identify situations in which the current net neutrality and specialised service rules would ‘present a realistic challenge to the introduction of new 5G services’ (para 3.34).

Net Neutrality and Brexit

Since the net neutrality obligations in the UK originate in EU law, in October 2018, the UK Government introduced the Open Internet Access (Amendment Etc) (EU Exit) Regulations 2018,¹⁷ as an instrument supplementing the EU Withdrawal Act 2018 to provide for net neutrality continuity requirements through the Brexit process. The update ensured that reference to EU law was removed from the UK implementation of net neutrality rules by amending the Open Internet Access (EU Regulation) Regulations 2016, but retained the substance of these rules along with Ofcom as the regulatory body. However, Ofcom is no longer obliged provide reports on net neutrality to the European Commission or to pay regard to guidelines issued by BEREC when enforcing any rules, but is empowered to consult with BEREC on guidelines if it wishes. ISPs based in the UK and providing internet access services into the EU ought still to abide by the Open Internet Regulation according to a notice to stakeholders from the European Commission in May 2020.¹⁸

The agreement on the future of trade between the EU and UK was reached in December 2020, known as the Trade and Cooperation Agreement (TCA).¹⁹ According to the agreement, article SERVIN.5.22; on Telecommunication regulatory authority, specifies that both the EU and UK should establish a legally distinct and functionally independent telecommunications network, telecommunication services and equipment (Article SERVIN.5.22(1)(a)). The agencies are required to act independently and do not seek nor take any instruction for any other body (Article SERVIN 5.22(1)(c)).

On the open internet access, as per Article SERVIN.5.33, the EU and UK are obliged to ensure that the Internet access services enable users to:

- (a) access and distribute information and content, use and provide applications and services of their choice, subject to non-discriminatory, reasonable, transparent and proportionate network management; and
- (b) use devices of their choice, provided that such devices do not harm the security of other devices, the network or services provided over the network.

In March 2021, Ofcom published its new plan of work for 2021/22, *Making communications work for everyone*, where it recognised the importance of access to broadband internet particularly in

strategy.ec.europa.eu/en/news/commission-and-european-regulators-calls-streaming-services-operators-and-users-prevent-network

¹⁷ <https://www.legislation.gov.uk/ukxi/2018/1243/contents/made>

¹⁸ <https://www.linkedin.com/feed/update/urn:li:activity:6841690562563756032/>

¹⁹ Trade and Cooperation Agreement Between the European Union and the European Atomic Energy Community, and the United Kingdom of Great Britain and Northern Ireland. (2020). Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/948119/EU-UK Trade and Cooperation Agreement 24.12.2020.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/948119/EU-UK_Trade_and_Cooperation_Agreement_24.12.2020.pdf) [Accessed: 2 September 2021].

the context of the pandemic and the need for remote working, schooling etc.²⁰ Ofcom plans to review the effectiveness of the net neutrality rules over the course of the next year, following calls from stakeholders for greater flexibility.

6 ANALYSIS

Overall, it seems that since the Open Internet Regulation was implemented in the EU, there is general compliance with the Regulation's net neutrality provisions. In particular, there do not appear to have been significant issues with regards to ISPs blocking outright otherwise legal content, services and applications, which can be considered the most egregious and problematic violations of net neutrality from both the perspectives of ensuring competitive and innovative markets, and safeguarding human rights and pluralism.

While less severe than outright blocking, traffic discrimination by speeding up or slowing down different kinds of traffic has occurred in the EU and UK, and has attracted regulatory attention, and in CJEU cases, outright sanction on the basis of violating net neutrality rules.

Zero-rating has also attracted significant regulatory attention. Prior to the 2021 CJEU decisions, zero-rating was not per se illegal in the EU: it depended on the specific characteristics of the zero-rating practice. But those which have adverse impacts on competition and end-users' rights are more likely to fall foul of the regulatory requirements than those which do not. If zero-rating offers concern a whole category of applications e.g. video streaming rather than just one video streaming application, they are more likely to be legal. If zero-rating offers relate to the vertically integrated content or applications, they may be under more suspicion than those that relate to the content of an unrelated provider, but this is insufficient in itself for such an offer to be illegal. However, the CJEU in its 2021 decisions suggests that all zero-rating practices may infringe the Open Internet Regulation; yet its rulings could be read more narrowly to encompass only the specific scenarios at hand, all of which presented familiarly problematic characteristics.

In any event, even legal zero-rating offers, as well as the largely unscrutinised CDNs, may produce similar effects to some forms of DPI-facilitated non-net neutrality conduct, effectively favouring certain content and disincentivising the consumption of other content based on price and data usage. This may have economic implications, especially for less lucrative content and applications which either are unable to access (and pay for) CDNs or are unlikely to be zero-rated. While there may not be immediate competition or human rights impacts, permitting these practices may lead to a less pluralistic internet ecosystem.

Existing net neutrality rules not allowing traffic discrimination via DPI, but taking a more liberal approach to zero-rating and CDNs, produce potential inconsistencies in outcome. To ensure consistency and a technology/business practice neutral approach, net neutrality regulation could address zero rating and CDNs which have the same effect of prioritising traffic, and prohibit them.

²⁰ Ofcom. (2021). *Ofcom's plan of work 2021/22 Making communications work for everyone* [online] Available at: https://www.ofcom.org.uk/data/assets/pdf_file/0019/216640/statement-plan-of-work-202122.pdf [Accessed 5 June 2021]

However, this is unlikely to happen, and a prohibition on CDNs is especially unlikely given the net result would be a poorer consumer experience. As Ofcom has noted, zero-rating practices are also popular among consumers.

This leads us to wonder whether the EU's ban on commercial traffic prioritisation should be revisited? There may be some advantages to permitting paid prioritisation via DPI as compared to using CDNs according to Baake and Sudaric who found that both paid prioritisation via DPI and the use of CDNs result in 'a more efficient use of existing network capacity', 'higher investment in network capacity' and lower consumer prices compared to a neutral regime, but that CDN use results in higher consumer prices compared to paid prioritisation via DPI.²¹ However, allowing paid prioritisation is likely to attract significant controversy especially from smaller and non-for-profit end-users and digital rights NGOs, as a (further) attack on pluralism and fundamental rights, even if these may not be well-served by (legal) zero-rating practices and CDNs. In addition, commercial traffic prioritisation may be inappropriate in non-competitive IAS markets, since it may exacerbate concentration and degrade the consumer experience.

If net neutrality rules are to be rethought, the current binary 'prohibition/permission' as regards commercial traffic prioritisation vis-à-vis DPI seems inconsistent with the more individualised (and occasionally bespoke) approaches, currently under consideration by the EU and UK for digital content and application providers in such areas as digital competition law, digital advertising or digital intermediation services. For example, in line with the EU's Digital Services Act, for net neutrality a pyramidal structure of CAPs may be introduced, which differentiates based on the CAPs' size and power. It could be incrementally harder to prioritise (or prohibit outright the prioritisation of) the traffic of the CAPs with bigger audience/higher market shares, while local and underrepresented CAPs, for instance, as well as new entrant CAPs in mono- or oligopolised markets may receive more permissive regulatory treatment, such as their content being prioritised, which may lead to increased competition and pluralism.

7 NEXT STEPS

We propose the following as questions requiring more substantive investigation and analysis going forward:

1. Should net neutrality be present in a more differentiated form?

We may want to distinguish between 'hard' and 'soft' net neutrality:

- *Hard net neutrality* may refer to the prohibition of any instance of commercial traffic management. This broadly represents the status quo in the EU and UK.
- *Soft net neutrality* may reflect a more permissive approach, allowing some instances of commercial traffic management so long as there is no blocking of content, services or

²¹ Baake, P., and Sudaric, S. (2019). Net neutrality and CDN intermediation, *Information Economics and Policy*, Volume 46, Pages 55-67, <https://doi.org/10.1016/j.infoecopol.2019.01.003>.

programmes. Such instances would be subject to strict regulatory control, and their scope would be defined by legislation, and subject to ex post competition rules. This may align with the outcomes produced by (legal) zero-rating and CDN use, but is likely to be controversial from a pluralism and rights perspective. It may only be appropriate in a context of competitive IAS markets, or only some kinds of CAPs, such as smaller players, may be able to make use of it.

2. Can soft net neutrality still protect citizen and consumer interests, and media pluralism?

Can a transition from hard to soft net neutrality rules be made in a way which does not compromise the key societal objectives and benefits behind net neutrality rules while introducing a new competitive dynamic to digital markets? While allowing commercial prioritisation via DPI may provide some economic benefits for competition, what would its effects be on end-users and the digital ecosystem more generally especially as regards new entrants, local/national content and service providers and media pluralism? Could we even envisage only allowing paid prioritisation for such local/national providers as a way of acknowledging and addressing the power of large content and application providers over the current internet infrastructure and ecosystem?

3. Does the new approach to digital regulation as embodied in the DMA/DMU reforms in EU/UK demand, in parallel, a new approach to net neutrality?

Can and should the apparatus of net neutrality be revisited and reformulated in accordance with new regulatory priorities tackling concentrations of power online? Indeed, the increasingly recognised power of large content and platform providers, or ‘gatekeepers’, as demonstrated by many regulatory initiatives around the globe including the UK’s Digital Markets Unit and the EU’s Digital Markets Act proposals, may also prompt a reconsideration of net neutrality rules as to whether they are truly addressing power concentrations and imbalances in the digital sphere. If the rationale for net neutrality is to ensure pluralism and competition in the digital sphere, then if the result is actually to prop up other large Internet companies, then we should reconsider the operation of these rules.

However, aside from not mistaking correlation for causation, the prospects for rolling back or adjusting net neutrality rules such as transitioning to ‘soft’ net neutrality may not align with these proposals, which in various ways seek to impose further ex ante obligations on players – mainly platforms and other intermediaries, which may fall within the definition of ‘end-user’ in the digital economy. In some respects, these proposals mirror and complement net neutrality obligations by introducing more, not less, new ex ante obligations with similar aims to net neutrality in terms of promoting innovation, competition and fundamental rights in the digital ecosystem. Net neutrality rules were designed to deal primarily with the gatekeeping function of ISPs; the DMA in particular can instead be seen as extending the rationale of net neutrality to other gatekeepers, namely at the over-the-top service level.

Furthermore, it may be difficult for the UK to diverge far from the EU’s net neutrality rules given net neutrality’s inclusion as a provision of the EU-UK TCA which governs post-Brexit trade and relations. The EU may consider a strong divergence by the UK to softer net neutrality as an infringement of this agreement, and ultimately could submit it to ad-hoc arbitration as envisaged in Part 6 of the TCA.