COMPETITIVE ENTERPRISE INSTITUTE

Net Neutrality Team
Networks and Communications Group
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA

Ofcom Consultation: Net Neutrality Review

Ryan Nabil
Competitive Enterprise Institute
Washington, DC

13 January 2023

Introduction

On behalf of the Competitive Enterprise Institute (CEI), I welcome the opportunity to submit the following comments in response to the Office of Communication (Ofcom)'s net neutrality review consultation. Founded in 1984, the Competitive Enterprise Institute is a non-profit research and advocacy organisation focusing on regulatory policy from a pro-market perspective based in Washington, DC. CEI experts research and advocate policies to accelerate technological innovation and promote economic competitiveness through regulatory reforms in policy areas such as telecommunications, data privacy, artificial intelligence, and platform regulation, among others.

As post-Brexit Britain recalibrates its approach to telecommunications policy, the United Kingdom needs to adopt a careful approach to net neutrality that balances the competing priorities of promoting internet access, efficient broadband networks, consumer protection, and technological innovation. To that end, the Competitive Enterprise Institute appreciates Ofcom's intention to adopt a more flexible, pragmatic net neutrality framework and its efforts to seek stakeholder input and expert comments through this consultation.

Summary

The main points in this consultation response are summarised below:

I. Assessment of and proposed approach to zero-rating offers (Questions 1 to 4)

1. **More flexible approach to zero-rating offers**: Ofcom's proposed flexible approach toward zero-rating offers is a step in the right direction. By allowing consumers to access

certain internet content without reducing their overall data allowance, zero-rating can help improve consumer welfare, especially for low-income consumers. By allowing ISPs to provide zero-rate content while implementing proportionate transparency measures and reporting requirements, Ofcom can help calibrate net neutrality rules so that they cater to the needs of UK consumers and businesses better (Question 1).

2. **Classification of Type One entities for zero-rating offers**. Ofcom's clarification that it will not grant preferential Type One classification to public sector entities that compete with the private sector is a welcome development (Question 2).

3. **Holistic approach to net neutrality compliance**. Ofcom's flexible, comprehensive approach to zero-rating determinations is a step in the right direction. By analysing the impact of a proposed offering on consumers and markets more holistically, Ofcom can make better-informed decisions, benefit consumers, and promote innovation (Question 3).

4. **Allowing zero-rated content after a consumer has reached his or her data allowance limit**. A more permissive approach to zero-rated content could help broaden consumer choice and improve consumer welfare (Question 4).

II. Assessment of and proposed approach to retail offers (Questions 5 to 7)

1. **Retail offers with different quality levels**. When Internet service providers (ISPs) are allowed to customise retail offers, they can offer basic subscriptions at affordable prices while offering premium services for a higher fee. By prioritising traffic to different consumer segments accordingly, ISPs can improve the efficiency of their existing networks and build higher-quality networks in the long run (Question 5).

2. **Retail offers where different quality levels are content-specific**. Allowing ISPs to offer differentiated services for different content—for example, by zero-rating certain content when data allowance has been used—can benefit consumers (Question 7).

3. **Retail offers where different quality levels are service specific**. Although various internet services—from web browsing to augmented reality and virtual reality applications—all require connections to the internet, they have substantially different connectivity needs. Allowing ISPs to tailor retail offers based on consumer and business needs will enable them to offer more customised services, improving consumer welfare and efficiency (Question 7).

III. Assessment of and proposed approach to traffic management (Questions 8 to 10)

1. **Greater flexibility for traffic management**. Greater flexibility in traffic management rules could help ISPs improve user experience in cases where internet traffic surpasses capacity. That is why Ofcom's proposed approach, along with proportionate reporting requirements and transparency measures, is a step in the right direction (Question 8).

2. **Traffic management based on differentiated retail offers**. Internet service providers should be able to vary speed for different segments of subscribers for varying levels of services as long as they meet minimum quality standards as specified in terms of service and consumers within equivalent categories receive similar quality of service (Question 8).

IV. Assessment of and proposed approach to specialised services (Questions 11 to 12)

1. **Greater flexibility for specialised services**. In light of rapidly changing communications technologies, Ofcom is right to recognise the need for specialised internet services in the context of virtual reality, driverless vehicles, and remote surgery (Question 11).

2. **Framework for assessing specialised services**. Ofcom should review whether it should revise or expand evaluation criteria set by the Body of European Regulators for Electronic Communications (BEREC) for defining and regulating specialised services (Question 11).

3. **Regulatory sandbox for specialised services**. Ofcom should consider creating a regulatory sandbox to develop and calibrate rules for specialised services. That would enable Ofcom to customise internet regulations and advise Parliamentary committees on ways to revise legislation in line with changing technological developments (Question 11).

4. **Reciprocal sandbox agreements**. Ofcom should consider creating reciprocal sandbox agreements with other advanced economies such as the US and Canada (Question 11).

V. Scope of the net neutrality rules, terminal equipment and public interest exceptions (Questions 13 to 16)

1. **Tailored approach to different categories of terminal equipment**. Instead of a one-size-fits-all policy, Ofcom should adopt a customised approach that allows ISPs to prioritise traffic flows depending on the types of terminal equipment, provided that traffic for equipment within the same category is treated identically (Question 13).

2. **Public interest exemption for emergency video communications services**. Ofcom should amend the General Conditions of Entitlement (GCs) and instruct ISPs to prioritise and provide zero-rated access to emergency video relays (Question 15).

3. **Scam, fraudulent content, and parental controls**. To the extent that existing technology and the law allow, ISPs should be allowed to block internet scams and fraudulent content and provide in-network parental controls. Such a policy could enhance consumer welfare as ISPs compete to deliver services with superior content filters and parental controls (Question 16).

I. Assessment of and proposed approach to zero-rating offers

Question 1: Do you agree with our assessment of zero-rating offers and our proposed approach?

Ofcom's proposed flexible approach toward zero-rating offers is a step in the right direction.[1] Following the Court of Justice of the European Union (CJEU)'s rulings in September 2021, the European Union has adopted a more restrictive approach toward zero-rating offers. Following the CJEU decisions, zero-rating offerings of specific content categories are no longer available in the EU, as reflected in the updated revised BEREC guidelines.[2] Such restrictions, which effectively ban zero-rating offers unless they are applied to all content, diminish consumer welfare for users who could have otherwise benefitted from free or low-cost access to zero-rated content.

As Ofcom correctly recognises, most zero-rating offers have the potential to benefit consumers, especially low-income consumers with low-cost internet subscriptions with a limited data allowance. By allowing ISPs to provide zero-rate content while implementing proportionate transparency measures and reporting requirements, Ofcom can help create net neutrality rules that better reflect the needs of UK consumers and businesses.

Question 2: Do you agree with the criteria we use to define Type One, Type Two, and Type Three zero-rating offers and our proposed approach to such offers?

Ofcom's development of three separate categories is a much-needed first step in adopting a more permissive approach to zero rating under the UK's current net neutrality framework. However, in making such a determination, Ofcom needs to ensure that it does not grant regulatory privilege to government and public sector entities at the expense of their private sector rivals.

As Ofcom correctly recognises, allowing consumers to receive zero-rated content from government departments and public sector entities like the National Health Service can help improve consumer welfare. To that end, Ofcom proposes classifying beneficial content from government and public sector entities as Type One offers, which will not undergo additional scrutiny to determine whether they comply with the net neutrality rules.

However, this preferential access should only apply to services where government has a monopoly—such as the defence and police—rather than in sectors like the media and the arts, where public sector entities often compete with the private sector.

---

[1] For the purposes of this document, CEI adopts the following description of zero-rating used by Ofcom: "Zero-rating is a commercial practice whereby an ISP does not subtract data usage associated with a particular application (e.g. Facebook) or category of applications (e.g. social media) from a customer's monthly data allowance. The Framework document also briefly sets out our approach to the prohibition on restrictions on the use of terminal equipment (e.g. tethering)." See Footnote 22 in The Office of Communications (Ofcom), *Consultation: Net Neutrality Review* (2022), 9, https://www.ofcom.org.uk/__data/assets/pdf_file/0028/245926/net-neutrality-review.pdf, accessed 9 Jan. 2023.

[2] Ofcom, *Consultation: Net Neutrality Review*, 36.

Therefore, as stated in the proposed framework, Ofcom should refrain from allowing zero-rated access to content from public entities unless their private sector rivals are also granted the same preferential access. In sectors where public and private sectors compete, giving government entities zero-rated access while withholding such classification from private organisations would be tantamount to granting regulatory privilege to public entities. Therefore, Ofcom's clarification—that Type One classification only applies to beneficial content from public sector entities that do not compete with the private sector—is a welcome development.

Question 3. Do you agree with the approach in our guidance in Annex 5 in relation to zero-rating?

Ofcom's more flexible, holistic approach to zero-rating determinations and the accompanying guidance—as outlined in the Annex document—is a step in the right direction. Instead of the previous three-step test that Ofcom adopted in 2016, the proposed framework will consider a more comprehensive set of factors in assessing net neutrality compliance. By holistically evaluating the likely effects of a proposed offering on consumers and markets, Ofcom can make better-informed decisions, help benefit consumers, and promote innovation.

Question 4. What are your views on whether zero-rated content should be able to be accessed once a customer's data allowance has been used up? Please provide any further evidence you have to support your responses.

Internet service providers might seek to provide zero-rated content to consumers as part of their subscription package or for a fee. If ISPs offer such content without contravening the net neutrality rules, they should be able to do so as a matter of principle. Indeed, as Ofcom recognises, consumers would benefit from accessing zero-rated content after reaching their data allowance. Although most UK consumers do not exceed their monthly data limit, low-income consumers are likelier to have cheaper cellular subscriptions with a comparatively lower data allowance. [3] That is why poorer consumers and households are disproportionately more likely to benefit from a more permissive approach to zero-rated content.

However, without a change to the Open Internet Access Regulation 2016 (the "Regulation" or "Net Neutrality Regulation"), consumers will not be able to access zero-rated content after reaching data limits—with a few exceptions like making emergency calls and accessing Type One content.[4] As a result, Parliament and Government will need to update or replace the Regulation so that Ofcom can develop more permissive rules for zero-rated content and help expand consumer choice and welfare.

[3] This document also refers to the Regulation as the "net neutrality rules". Ofcom, *Consultation: Net Neutrality Review*, 36–37.
[4] Ibid., 55–56.

Some net neutrality proponents in the EU and the US argue that zero rating restricts consumer choice and distorts consumer behaviour.[5] While allowing zero-rated access to some content after a consumer has reached his or her data limit could lead to temporary changes in data consumption patterns for some users, such concerns are likely overstated.

As Ofcom notes, monthly data allowances in the UK have been steadily increasing in recent years. Between 2019 and 2022, the proportion of UK consumers with an unlimited data plan or a subscription offering 10 GB or more data per month increased from 32 per cent to 53 per cent. As a result, fewer and fewer consumers now reach their monthly data allowance. Among UK consumers that did not have an unlimited plan in 2022, only eight per cent of consumers used more than 90 per cent of their monthly data allowance, with 80 per cent of them using less than half of their data allowance. [6] Therefore, while the availability of zero-rated content after reaching their data limit might be a bonus for most consumers, it is unlikely to restrict consumer choice or meaningfully affect online behaviour.

Furthermore, consumers close to using their data allowance could still use Wi-Fi on mobile devices and personal computers. The availability of such alternatives further reduces the impact of zero-rating on long-term consumer behaviour.

These factors tip the scale in favour of zero-rating offers relative to their potential downsides. Therefore, unless new empirical evidence suggests otherwise, Parliament and Government should consider adopting a more permissive approach to zero-rated content while implementing proportionate transparency requirements and monitoring mechanisms.

II. Assessment of and proposed approach to retail offers

Question 5. Do you agree with our assessment of retail offers with different quality levels and our proposed approach?

A more flexible regulatory approach that allows ISPs to offer subscriptions with different levels of quality provides two benefits. First, consumers have different needs for internet access, with some using the web primarily for low-bandwidth activities such as online browsing and email. Other users need high-speed connections for virtual conferences, video streaming, and other data-intensive activities. When ISPs are allowed to customise retail offers, they can offer basic subscriptions at affordable prices while offering premium services for a higher fee.

---

[5] For a longer discussion, see European Commission, *Zero-rating practices in broadband markets* (2018), https://ec.europa.eu/competition/publications/reports/kd0217687enn.pdf; Orynne McSherry, Jeremy Malcolm, and Kit Walsh, 'Zero Rating: What It Is and Why You Should Care', *Electronic Frontier Foundation*, 18 Feb. 2016, https://www.eff.org/deeplinks/2016/02/zero-rating-what-it-is-why-you-should-care.

[6] Source: Ofcom analysis based on RFI response by BT Group, Sky, VMO2, and Vodafone in March 2022. See Ofcom, *Consultation: Net Neutrality Review*, 37.

Second, by prioritising traffic to different consumer segments accordingly, ISPs can make their networks more efficient and build higher-quality networks instead of spending significant resources on building peak capacity. If ISPs invest more in network infrastructure, it will ultimately help consumers by improving internet speed and lowering costs in the long run. In light of these benefits, Ofcom is right to suggest a more flexible approach to retail offers with different levels of service.

Ofcom can maximise the benefit of this strategy by allowing ISPs to offer different levels of services for peak and non-peak hours—although this change would most likely require revision to legislation. Moreover, greater flexibility for differentiated retail offers will be even more critical for the adoption of 5G- and 6G-enabled technologies that will enable advanced services in frontier fields such as augmented reality, real-time health services, and the metaverse.

Question 6. Do you agree with the approach in our guidance in Annex 5 in relation to differentiated retail offers, including transparency requirements, improved regulatory monitoring, and reporting of retail offers with different quality levels as well as the general quality of the internet access services?

While a more flexible approach to retail broadband offers is beneficial, it carries risks, such as consumers being underinformed about various non-price aspects of broadband service differentiation. Consumers could also experience a gap between advertised and actual quality of internet services, especially at the lower tier of retail offers.[7] Ofcom's improved regulatory monitoring and transparency requirements can help address these risks while ensuring greater consumer flexibility and improved network efficiency.

Question 7. What are your views on a more permissive approach towards retail offers where different quality levels are content and service specific?

A more flexible approach toward retail offers with different levels of service has the potential to expand consumer choice and promote network efficiency. As discussed in response to Questions 1 and 4, allowing ISPs to offer differentiated services for different content—for example, by zero-rating certain content when data allowance has been used—can improve consumer welfare, especially for low-income internet users. When implemented along with proportionate transparency and reporting requirements, such policies can benefit consumers and promote innovation while minimising negative concerns such as reducing the quality of online experience.

Likewise, broadband plans with different levels of service are becoming increasingly necessary as communications technologies enable a broader range of services—from remote sensors to augmented and virtual reality-enabled video applications. While these all require connections to the internet, they have substantially different connectivity needs—from low-bandwidth internet access for basic applications to high-bandwidth internet with fast data transfer for more advanced services.

[7] Ofcom, *Consultation: Net Neutrality Review*, 66–67.

By allowing ISPs to tailor retail offers for different categories of internet services, a more flexible regulatory framework can improve consumer welfare and network efficiency. Greater flexibility will become increasingly important as new generations of wireless technologies widen the gap between basic and more advanced internet applications.

In the short run, Ofcom could address some of these issues by categorising specific types of services described above as "specialised services". In the long run, as more internet services become specialised, it will require a more fundamental change in regulatory approach since ISPs will increasingly need to offer more customised services based on divergent consumer and business needs. Such a change goes beyond the scope of Ofcom's statutory authority and will require legislative changes from Parliament and Government. By adopting a more flexible, permissive regulatory approach now, Westminster can enable Ofcom to apply the net neutrality rules more effectively and pre-empt future connectivity challenges.

III. Assessment of and proposed approach to traffic management

Question 8. Do you agree with our assessment of how traffic management can be used to address congestion and our proposed approach?

Granting ISPs greater flexibility in managing traffic management could help improve user experience in cases where internet traffic surpasses capacity.[8] Ofcom correctly recognises that technological capabilities currently limit the extent to which ISPs can distinguish between different traffic flows. Where existing technology allows, ISPs should be allowed to implement necessary traffic management measures if they do not discriminate between equivalent categories of traffic.

Likewise, ISPs should be allowed to regulate speed for different groups of subscribers as part of differentiated internet plans as long as ISPs meet minimum quality standards as specified in terms of service and consumers within equivalent categories of retail offers receive similar quality of service.

That is why Ofcom's new approach—along with improved regulatory monitoring, transparency requirements, and reporting of network performance metrics -—is a step in the right direction. As internet traffic detection and management capabilities develop further, ISPs would also benefit from greater flexibility in managing traffic during peak periods. As these technologies mature, Ofcom should issue more detailed guidelines about acceptable traffic management practices and situations in which they are appropriate.

Question 9. Do you agree with the approach in our guidance in Annex 5 in relation to the use of traffic management to address congestion, including transparency requirements, improved

[8] Ofcom, *Consultation: Net Neutrality Review*, 72.

regulatory monitoring and reporting of general network performance metrics, the use of traffic management and the impact on service quality?

Please see the response to Question 8.

Question 10. What are your views on a more focused approach to traffic management to address congestion? Please provide any further evidence you have to support your responses.

Please see the response to Question 8.

IV. Assessment of and proposed approach to specialised services

Question 11. Do you agree with our assessment of specialised services and our proposed approach?

In light of rapidly changing telecommunications technologies, Ofcom is right to recognise the need for specialised communications services for augmented and virtual reality, driverless vehicles, and telemedicine. As these technologies develop further and become more integrated into everyday life, they will ultimately require a broader change in the UK's regulatory approach. However, because such a change goes beyond Ofcom's purview, Parliament and Government must update or replace the Open Internet Access Regulation with a more flexible, market-friendly legal framework.

Until then, Ofcom can design more flexible rules for specialised services while operating within the bounds of the Net Neutrality Regulation. Ofcom's proposed approach to such services would benefit from a structured assessment of the different types of specialised services, the criteria to qualify for such classification, and how they would be regulated.

Currently, Ofcom builds on the definition of specialised services as provided in the BEREC Guidelines. For example, Ofcom cites "voice telephony over 5G (VoLTE), … real-time health services (e.g., remote surgery) and new machine-to-machine communications" as examples of specialised services that ISPs need to prioritise.[9] Since Ofcom is no longer required to consider the BEREC Guidelines, it should review whether Ofcom should revise or expand BEREC criteria for defining and regulating specialised services. To that end, cooperating with foreign regulators and creating new UK-wide and international working groups—such as the US Federal Communications Commission Working Group on Specialized Services—might provide additional insights on defining and classifying specialised services.[10]

Additional criteria that could help understand different types of specialised services include

1) Service delivery method;

[9] Ofcom, *Net Neutrality Review*, 97.
[10] Open Internet Advisory Committee, Federal Communications Commission, *Open Internet Advisory Committee: 2013 Annual Report* (2013), https://transition.fcc.gov/cgb/oiac/oiac-2013-annual-report.pdf.

2) Connectivity requirements to deliver a specific service along different variables such as bandwidth, latency, and jitter;
3) Sector(s) in which the proposed service is used (e.g., healthcare and finance); and
4) Whether Ofcom and Government consider such sectors as critical (e.g., medical and financial services).

Depending on such criteria, different service categories might also require varying degrees of prioritisation. For example, remote-assisted surgery and driverless transportation systems—in which the transfer of high volumes of data without interruption is necessary for delivering a critical service—will require much better connectivity and a higher degree of prioritisation than lower bandwidth VoLTE calls. Once Ofcom further develops the classifications of and rules for specialised services, they should be clearly communicated to the ISPs and the public.

Finally, Ofcom should consider creating a regulatory sandbox to develop and calibrate a regulatory framework for specialised services. Due to the rapidly changing nature of communications technology, there is a growing need to understand how those technologies interact with the net neutrality rules and other legal frameworks. To that end, Ofcom could create a regulatory sandbox where companies could receive regulatory guidance and regulatory relief for offering specialised communications services. That would enable Ofcom to better understand emerging technologies and changing business models, customise internet rules, and advise Parliamentary committees on ways to revise legislation in line with changing technological developments.

The Financial Conduct Authority (FCA) was the first regulator in the world to create a financial technology sandbox, which was subsequently adopted by more than 50 jurisdictions, including Singapore, South Korea, and the US. While we are unaware of any current sandboxes specifically geared towards communications technology innovation, several jurisdictions have created sandbox programs to promote innovation in other sectors. For instance, jurisdictions such as Utah in the United States and British Columbia and Ontario in Canada have launched sandbox programs to promote legal innovation. [11] Meanwhile, the European Union has proposed the creation of national artificial intelligence sandboxes in EU member states (Spain launched the first one last year).[12]

In its consultation request for the 2023–2024 strategic plan, Ofcom mentioned its ongoing efforts to develop "spectrum sandboxes" to understand the evolving needs of spectrum users and calibrate authorisation approaches accordingly.[13] Similar arrangements for specialised services could help

[11] For a detailed discussion, see Ryan Nabil, *How Regulatory Sandbox Programs Can Promote Technological Innovation and Consumer Welfare: Insights from Federal and State Experience* (Washington, DC: Competitive Enterprise Institute, 2022), https://cei.org/studies/how-regulatory-sandbox-programs-can-promote-technological-innovation-and-consumer-welfare/.
[12] The Ministry of Economic Affairs and Digital Transformation, 'The Government of Spain in collaboration with the European Commission presents a pilot for EU's first AI Regulatory Sandbox', press release, 27 June 2022, https://portal.mineco.gob.es/RecursosNoticia/mineco/prensa/noticias/2022/20220627-PR_AI_Sandbox_EN.pdf.
[13] Ofcom, *Ofcom's proposed plan of work 2023/24: Making communications work for everyone* (2022), 20, 40, https://www.ofcom.org.uk/__data/assets/pdf_file/0022/249520/consultation-ofcoms-plan-of-work-2023-24.pdf.

Ofcom better understand, classify, and regulate different categories of specialised services. However, because sandboxes for specialised services will most likely implicate the overlapping jurisdictions of multiple government departments—such as the FCA, the Competition and Markets Authority, and the Department of Transportation—Ofcom will need to cooperate with other regulators and develop a mechanism for coordinating regulatory relief and jointly supervising sandbox participants. Continued engagement with national regulators through such fora as the Digital Regulation Cooperation Forum will be crucial to Ofcom's efforts to that end.

Finally, Ofcom could develop reciprocal sandbox agreements with other advanced economies such as Australia, Canada, and the US.[14] Foreign companies could use such sandboxes to offer innovative specialised services in UK markets in exchange for regulatory guidance, accelerated spectrum authorisation, and/or exemption from certain Ofcom rules. Similarly, UK-based companies could also participate in reciprocal sandbox programs overseas and receive similar benefits.

Question 12. Do you agree with the approach in our guidance in Annex 5 in relation to specialised services, including transparency requirements, improved regulatory monitoring and reporting of the need for optimisation of a service, the general performance of internet access services, and the impact of specialised services on the quality [Sic] internet access? Please provide any further evidence you have to support your responses.

Ofcom's proposed transparency and monitoring requirements appear well-designed and proportionate to the net neutrality exemptions that ISPs would receive for certain specialised services. For example, the requirement to disclose network management in specialised cases under Article 4 (1) is designed to promote trust and public transparency. Likewise, informing consumers of their right to information about complaint resolution and alternative dispute resolution is consistent with Ofcom's mission to ensure consumer access to an open internet.[15]

However, in the future, Ofcom should be cautious not to impose any cumbersome requirements on internet service providers for delivering specialised services. Any proposed rules should carefully balance Ofcom's competing priorities of broadband access, network efficiency, and innovation. If the costs of such regulations are too high, they might ultimately discourage ISPs from offering some specialised services from which consumers could otherwise benefit. Developing pragmatic, transparent rules for specialised services that ensure open internet access while promoting innovation should remain a top priority for Ofcom.

[14] Nabil, *Regulatory Sandbox Programs*, 4.
[15] Ofcom, *Net Neutrality Review*, 28–30.

V. Scope of the net neutrality rules, terminal equipment, and public interest exceptions

Question 13. Do you agree with our assessment of the terminal equipment rules and our proposed approach?

Under Article 5 (1) of the Net Neutrality Regulation, Ofcom has an obligation to ensure non-discriminatory access to internet services. That is why Ofcom must ensure that ISPs do not discriminate against terminal devices of similar categories. For example, service providers should not provide different speeds for a MacBook compared to Microsoft and Hewlett-Packard laptops, just like a consumer should not be discriminated against for using different brands of smartphones.

Various types of equipment have varying technical specifications. For instance, some mobile devices might not support 5G, which might slow down cellular internet speed while using such equipment. To the extent that existing technologies allow, ISPs should not provide different quality services to terminal equipment belonging to the same category, such as smartphones, laptops, and tablets.

Therefore, instead of a one-size-fits-all policy, a zoned or partitioned approach to terminal equipment will better suit the needs of an innovative digital economy. Ofcom should recognise differences between different types of terminal equipment and allow prioritisation where needed, provided ISPs treat traffic for similar devices identically.

For example, consider a smartwatch programmed to notify a person's emergency contact and call 999 if a person suffers from a life-threatening emergency. In such cases, communications from such devices should be prioritised—especially if networks face peak traffic due to special events like World Cup football matches or if the emergency occurs in a remote area with limited connectivity. Likewise, traffic to and from smart devices used in healthcare and home security might need to be prioritised over non-critical traffic, such as music and video streaming services for entertainment.

Such an approach will be critical in light of the internet of Things (IoT) and 5G-enabled devices, which will require ISPs to prioritise specific traffic categories (e.g., intelligent transportation systems).[16] As communications technologies advance, specialised 5G-enabled equipment will only become more widespread. That is why Ofcom will ultimately need to allow ISPs greater flexibility in offering such services. Instead of a one-size-fits-all policy, Ofcom should adopt a tailored approach that will enable ISPs to prioritise different traffic flows depending on terminal equipment categories.

In the short run, Ofcom could expand the list of categories under "specialised services", which are exempt from certain net neutrality rules. However, as such devices become more common and increasingly touch more sectors of the economy, it would require Parliament and Government to replace the Regulation with a more flexible, market-friendly legal framework.

[16] Ryan Nabil, 'Why a Return to Net Neutrality Would Harm the Race to Adopt 5G', *The National Interest*, 11 Mar. 2021, https://nationalinterest.org/blog/buzz/why-return-net-neutrality-would-harm-race-adopt-5g-179984.

Question 14. Do you agree with our assessment of internet access services provided on aeroplanes, trains, buses, and coaches and our proposed approach?

The case of internet services on aeroplanes demonstrates the importance of a flexible approach toward net neutrality. Without fair use rules such as download and bandwidth limits, airlines could find it impractical to offer internet services and might even stop offering them altogether. Allowing airlines to prioritise different types of traffic enables them to provide various services based on consumer needs. For example, an airline could offer free or low-cost offers to consumers needing only basic web access while providing premium services to business travellers willing to pay for them. Such flexibility can also be essential to providing internet services in other modes of transportation—like crowded trains in remote areas—albeit to a more limited extent.

Without changes to legislation, Ofcom remains constrained in its ability to exempt internet offers on public transportation from the net neutrality rules except in limited circumstances. That is why, in the short run, Ofcom should not prioritise net neutrality enforcement actions for traffic management in transportation systems. In the long run, Parliament should consider adopting a more flexible regulatory approach that allows more tailored internet service offers in public transportation based on consumer needs and technological constraints.

Question 15. Do you agree with our proposed approach to emergency 999 communications services and that we should consider amending the GCs to achieve this?

We believe that Ofcom is correct to apply an exception to traffic management rules in emergency situations under Article 3 (3) (a) of the Regulation. While granting ISPs increased flexibility to prioritise distinct traffic types is beneficial in general, this ability is crucial in responding to emergencies. For example, emergency video relay is critical in responding to emergencies involving persons with speech difficulties. Likewise, video communication would be beneficial in situations where the victim is unable to speak, either due to a crime or a sudden illness, such as a stroke. That is why Ofcom needs to exempt emergency 999 communications from the net neutrality rules. To that end, Ofcom should amend the General Conditions of Entitlement and instruct ISPs to prioritise and provide zero-rated access to emergency video relays.

Question 16. Do you agree that ISPs should be allowed to block scams and fraudulent content and provide in-network parental controls and content filters? Please provide any further evidence you have to support your responses.

Existing technologies and encrypted communications limit the extent to which internet service providers can effectively block scams and fraudulent content. To the extent that existing technologies and the law allow, ISPs should be allowed to block scams and fraudulent content and provide in-network parental control. Such flexibility has the potential to improve consumer welfare as ISPs compete to provide internet services with superior content filters and parental controls.

Conclusion

As post-Brexit Britain recalibrates its approach to technology governance, the UK needs to develop a careful approach to open internet regulation that balances the competing priorities of internet accessibility, efficient broadband networks, and technological innovation. Ofcom's review of the net neutrality rules is an excellent step in that direction. Adopting a pragmatic, market-friendly approach that grants service providers greater flexibility in offering differentiated retail services and prioritising traffic flows will improve consumer welfare, promote innovation, and enhance network efficiency.

Notwithstanding Ofcom's commendable efforts, the UK's net neutrality reforms need to go further. The Open Internet Access Regulation—which was carried over from Britain's membership in the EU—circumscribes the extent to which Ofcom can design effective internet rules within the existing legal framework. By updating or replacing the Net Neutrality Regulation with better-designed, outcomes-based legislation, Parliament and Government can enable Ofcom to design flexible, market-friendly internet rules better suited to the needs of a rapidly changing UK digital economy.

Ultimately, internet service providers need greater freedom to prioritise different types of traffic flows and offer different categories of services based on consumer and business needs. Such flexibility is crucial in light of emerging technologies with vastly different connectivity requirements—from remote sensing to edge computing and the metaverse—which will require ISPs to tailor the quality of their retail offerings accordingly.

As the next generation of wireless technologies widens the gap between basic and more advanced internet applications, regulatory agility will be crucial for enabling innovation and improving consumer welfare. By adopting a more pragmatic, flexible approach to digital regulation, Parliament and Government should lay the legal framework that allows the private sector to spearhead innovation and promote UK leadership in emerging technologies.

Yours sincerely

Ryan Nabil
Research Fellow
Competitive Enterprise Institute
1310 L St NW, 7th Fl.
Washington, DC 20005
ryan.nabil@cei.org