

Your response

Question	Your response
<p data-bbox="204 1675 756 1742">Question 1: Functioning of the net neutrality framework</p> <p data-bbox="204 1783 775 1957">(a) Which aspects of the current net neutrality framework do you consider work well and should be maintained? Please provide details including any supporting evidence and analysis.</p>	<p data-bbox="809 1675 986 1709">Question 1 (a)</p> <p data-bbox="809 1711 1385 1991">The core principles of the UK's net neutrality framework have worked well. No significant or sustained concerns from either Ofcom or other parties have materialised around the management of network traffic by fixed internet access providers in the UK which would warrant a more restrictive interpretation of net neutrality rules.</p>

(b) Which aspects, if any, of the current net neutrality framework do you consider work less well and what impact has this had? What, if any, steps to you think could be taken to address this and what impact could this have? Please provide details including the rule or guidance your response relates to and any supporting evidence or analysis.

Question 1 (b)

While the UK's net neutrality regime continues to fulfil its original purpose of ensuring that no discrimination takes place at the access layer, the call for evidence rightly points out that "since the net neutrality rules were agreed in 2015, there have been significant changes in the wider environment". These changes suggest that net neutrality should consider the entirety of the internet value chain - we provide more detail on this in our answer to question 2.

Looking more specifically at the application of the current framework, we believe that Ofcom should consider an explicit carve-out of enterprise-grade business services from the regime. Both the BSG's Open Internet Code of Practice and Ofcom's Approach to Net Neutrality from 2011 had an explicit focus on consumer services, and we believe that such a consumer-focused approach to net neutrality is the right way forward. Business contracts tend to be highly tailored and designed to support innovation, and our members have voiced concerns that the current interpretation of specialised services is insufficiently flexible for the current, yet alone the future business market (e.g. Software Defined Networks (SDN)/Network Functions Virtualisation (NFV), 5G, hybrid networks and IoT). If a wholesale carve-out is not possible, Ofcom should at least consider clarifying the application of specialised services in relation to enterprise grade connectivity.

Another new area which could be addressed inside or outside of the net neutrality framework, is that of high traffic events. Most connectivity products in the UK provided to consumers and SME are priced to be as competitive as possible, which is crucial to our country's competitiveness in the digital sector. With an increasing number of popular high bandwidth applications, all using an increasing number of products with a very high variation between regular and possible high peak usage, the risk of service degradation due to a small number of content providers updating their offering simultaneously is increasing year on year. There is currently limited capacity for

	<p>flexibility, cooperation and management of traffic in response to events and this can allow some content providers to never have to consider their impact on other network users.</p> <p>This puts a premium on coordination between content providers (from cloud providers to video on demand, gaming, and various operating systems) with our members needing to prevent traffic peaks and to ensure the best possible experience for end users. While we have seen a more positive attitude from content providers during COVID-19, there were some parties that refused cooperation even in a time of national crisis. Overall, we believe that more needs to be done to foster cooperation, for example, a code of practice setting out some requirements and responsibilities for those issuing large software downloads would be helpful. Alongside this, a coordination forum between key parties would be useful</p> <p>We would also like to see more clarity from Ofcom on how the UK's net neutrality framework can accommodate the potential for innovation offered by full-fibre and 5G networks.</p>
<p>Question 2: Use cases, technologies, and other market developments</p> <p>(a) What, if any, specific current or future use cases, technologies or other market developments have raised, or may raise, particular concerns or issues under the net neutrality framework?</p> <p>(b) What, if any, steps do you think could be taken to address these concerns or issues and what impact could this have? Please provide details of the use case, technology or market development and the rule or guidance your response relates to, as well as any supporting evidence and analysis.</p>	<p>Question 2 (a)</p> <p>Since the current net neutrality rules were introduced, there have been significant developments in the wider internet ecosystem which we believe should be considered in the future development of the UK's net neutrality regime. These include the emergence of new online business models some of which consume very high levels of data and bandwidth, the emergence of a number of players with highly concentrated power (often in multiple markets or parts of the value chain) and the emergence of new standards such as DNS-over-HTTPS. As a result, access providers no longer fulfil the same 'gatekeeper' role that they did when the current net neutrality rules were devised and introduced. There is not only a greater level of competition between access (infrastructure) providers (offering consumers greater choice than in other parts of the value chain) but there is also a greater number of players (operating system providers, content providers, streaming</p>

	<p>services, app stores or even individual apps) that can have a meaningful impact on traffic routing, traffic management and the end user experience. Crucially decisions of how traffic is routed or managed by apps or operating systems are not always conducted with explicit user consent, there is less choice between different providers and some of these players are present across the value chain and could thus gain a competitive advantage (e.g. de-prioritisation of a rival content provider if that is accessed from within a social network).</p> <p>Question 2 (b) As a result, a net neutrality regime that is solely focused on the access layer risks failing to serve consumers and Ofcom should broaden the scope of the review and consider the net neutrality regime in the context of the overall internet value chain. Remaining solely focused on the access layer gives an incomplete picture of how the internet has changed and the challenges and consequences that have come with those changes.</p>
<p>Question 3: Value chain</p> <p>Are there particular business models or aspects of the internet or other value chains that you think we should consider as part of our review? Please explain why, providing details including any supporting evidence or analysis.</p>	<p>We have covered this partially in our answer to Question 2, but it is worth emphasising that the trajectory of internet standards developments shifts the balance of power and allows some parts of the value chain to impose their preferred outcomes on the entire technology and value chain.</p> <p>In the case of encrypting some routing information, this can disrupt the ability to move content efficiently and reliably around the network and drive costs to companies operating networks.</p> <p>Again, we would like greater collaboration and a higher premium being put on network efficiency across the value chain, both in the way standards are developed and applied and how content providers use services and coordinate with network providers.</p>
<p>Question 4: International cases studies</p> <p>Are there any international case studies or approaches to net neutrality that you think we could usefully consider? Please include details of any analysis or assessments.</p>	

<p>Question 5: Guidance and approach to compliance and enforcement</p> <p>Are there specific challenges with the existing guidance that we should be aware of (e.g. ambiguity, gaps)? Assuming the rules stay broadly the same, which areas could Ofcom usefully provide additional clarity or guidance on? Please provide details.</p>	<p>As we move to a full-fibre and 5G environment, a clearer definition of how specialised services can be offered becomes more important, including a clearer definition of “objectively necessary” and a recognition network capacity is always shared, with a more common-sense approach to balancing special services and general internet access to further enable innovation by network providers. Fixed and mobile networks have invested significant sums in infrastructure that is central to the UK’s economic growth and development, it’s important that any review of the rules in this area enables innovation and further investment.</p>
<p>Question 6: Annual report</p> <p>Do you find Ofcom’s annual monitoring report useful or are there any changes you think we could usefully make either to the content or how we communicate this?</p>	<p>/</p>
<p>Question 7: Other</p> <p>Is there any other evidence or analysis that you are aware of and/or could provide to aid our review?</p>	<p>/</p>