



Vodafone's response to DRAFT BEREC Guidelines on the
Implementation
by National Regulators of Regulation 2015/2120 laying down
measures concerning open internet access (the "Regulation")



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Executive summary

Vodafone welcomes the consultation on BEREC's draft Guidelines. We are supportive of the aims of the Regulation and of an open internet which encourages innovation, competition and choice for end users. However, we are concerned that in some areas, BEREC has gone beyond its remit which is restricted to providing guidance for NRAs on how to implement the obligations. We are also concerned that the involvement of stakeholders in the process of drafting these Guidelines has been limited and the consultation period is very short. Our priority is to ensure that the Guidelines do not inadvertently limit customer choice and prevent innovative new business models and services emerging, especially in relation to the development of 5G and the internet of things.

On the substance of the draft Guidelines, Vodafone's main concerns are as follows:

The draft BEREC Guidelines potentially restrict customer choice, which is intended to be protected by Article 3(1) and 3(2) in a number of ways:

- By restricting "sub-internet offers", forcing customers to pay for all services, even if they would prefer to have access to fewer services and pay less overall and inadvertently preventing a number of beneficial services, such as emergency calls, top up pages, health and education services etc.
- By limiting access to innovative pricing bundles. For example, the current prohibition on zero rating a service once the data cap is reached could prevent ISPs from offering unlimited video tariffs, free education services and even free customer care services. Any restriction on specific commercial practices should only be made after an assessment of the impact of that practice on customer choice.
- By preventing end-users from choosing to implement network based parental controls.

These restrictions are not consistent with the Net Neutrality Regulation.

The Guidelines go too far in imposing an "innovation by permission" approach, holding back the development of new high quality services and are not in line with the requirements of the Regulation.

This can be seen in the following areas:

- By imposing a prior approval model for optimised non IAS services, with new requirements such as the need for "logical separation" and the lack of guidance in relation to charging for prioritisation.
- By taking a negative and restrictive approach towards traffic management, despite the fact that traffic management delivers reduced costs and ensures efficient usage of networks.
- By setting out a narrow and inconsistent definition of private networks that includes WIFI hotspots on the basis of a closed end user group but excludes services provided to an enterprise, despite the fact that the employees using that service will also be a closed end user group.
- By using terminology which is based on existing networks and which may lock in today's technologies and hamper the development of 5G.
- By expanding the scope of Guidelines beyond the regulation of IAS to all commercial practices of ISPs.

Retrospective requirements: The requirement to retrospectively amend contracts entered into before the date that the Regulation came into force is not consistent with the requirements of the Regulation and would be disproportionate for ISPs.

Transparency: Sufficient time should be given to NRAs and ISPs to implement the transparency requirements. In addition, undue burdens may be placed on ISPs if the requirements are too prescriptive and they fail to take account of pre-existing national requirements on how to substantiate speeds.



Process – The Guidelines can only provide guidance on how the Regulation should be interpreted and cannot make specific judgements in the absence of market conditions or create new law. As drafted, the Guidelines go significantly beyond their required mandate to provide guidance to help NRAs implement the Regulation. In addition, consultation with stakeholders has been very limited to date with no opportunities to see or comment on the draft Guidelines other than the very short consultation period between 6th June and 18th July. Given this is the case, the comments made within this consultation should be fully considered and changes should be made within the Guidelines, with further input with stakeholders where needed. In addition, further time will be needed for NRAs to implement the Guidelines, especially in relation to transparency requirements. In order to ensure a consistent approach, BEREC should recommend that NRAs and ISPs work together collaboratively on implementing these requirements over the next 12 months.



Customer choice

The BEREC Guidelines potentially restrict customer choice, which is intended to be protected by Article 3(1) and 3(2) in a number of ways:

- By restricting “sub-internet offers”, forcing customers to pay for all services, even if they would prefer to have access to fewer services and pay less overall and inadvertently preventing a number of beneficial services, such as emergency calls, top up pages, health and education services etc.
- By limiting access to innovative pricing bundles. For example, the current prohibition on zero rating a service once the data cap is reached could prevent ISPs from offering more attractive video tariffs, free education services and even free customer care services. Any restriction on specific commercial practices should only be made after an assessment of the impact of that practice on customer choice.
- By prohibiting network based parental controls.

These restrictions are not consistent with the Net Neutrality Regulation.

The prohibition of “sub-internet offers”

- BEREC has introduced a new and very unclear concept of a “*sub-internet service*”, being a service “*which restricts access to services or applications (e.g. banning the use of VoIP or video streaming) or enables access to only a pre-defined part of the internet (e.g. access only to particular websites).*” The Guidelines go on to provide that NRAs should take into account the fact that an ISP could easily circumvent the Regulation by providing such sub-internet offers and states that these services should therefore be considered to be in the scope of the Regulation and the fact that they provide a limited access to the internet should constitute an infringement of Articles 3(1), 3(2) and 3(3) of the Regulation.
- This is incorrect. There are essentially 3 categories of service covered by the Regulation:
 - IAS, which is a service provided to the public and which provides access to virtually all end points of the internet which is regulated by Article 3 and 4;
 - Non IAS, which are either not offered to the public or only provide access to a limited number of end points which are not regulated at all; and
 - Non IAS which are “optimised” and which are regulated under Article 3(5).
- Articles 3(1), 3(2) and 3(3) of the Regulation apply only to Internet Access Services. These are defined as services which provide connectivity to virtually all parts of the internet. Services which do not provide connectivity to virtually all parts of internet are therefore not impacted by these Articles.
- It may be the case that some sub-internet offers are seen to subvert the intent of the Regulation; the example given by BEREC of an IAS which blocks VOIP may be an example. However, NRAs can still take action in relation to such a service. Recital 7 gives NRAs the ability to intervene where commercial practices circumvent the provisions of Article 3(1) (i.e. the end-users’ rights to access and distribute information and content and to use and provide applications and services of their choice) but this is not the case in relation to every “sub-internet” offer and consequently, any such review should take place on a case by case basis. It is for the NRA to show in any particular case that a practice is not in line with the Regulation.



- e) Essentially, by prohibiting sub-internet offers, customers are forced to pay for all services, even if they would prefer to have access to fewer services and pay less overall. It would also prevent the development of socially beneficial services, such as a SIM providing access only to health or education services which may be issued by a health or education provider or a service that allows access only to sites that are suitable for children.
- f) The Guidelines should therefore delete any reference to sub-internet offers being prohibited, whether limited via the network or the terminal equipment used, unless they clearly circumvent the purpose of Article 3(1).

Restrictions on commercial practices

- a) Under Article 3(2), end users have the right to agree the commercial and technical conditions and characteristics of their internet access service **of their choice provided only that these do not undermine the rights in Article 3(1)**. Choice is a key concept throughout the Regulation; end users have the right in Article 3(1) and Article 3(2) to use the content/applications/services of their choice, choose their terminal equipment and negotiate the conditions of their service. The only limitation is that such agreement should not limit their ability to choose what services they can access pursuant to Article 3(1).
- b) Recital 7 provides additional guidance to NRAs in assessing when such rights are infringed and add a materiality threshold; NRAs are empowered to act where end users choice is materially reduced in practice (not in the abstract), taking into account the scale and the market positions of the ISP and the CAP. The principles applied in competition law will form a very material part of the assessment. This is based on the logic and flexibility of competition policy, allowing each situation to be judged on its own merits and acknowledging that the consumer welfare implications of many types of conduct are different, and often very complex in their commercial impact.
- c) In relation to differential pricing, we agree with BEREC that such practices may influence end users exercise of their rights without necessarily limiting them. Differential pricing can create more clarity and choice for customers, allowing them to purchase the services that best meet their needs. Differentiation, whether by price or quality, is commonplace in the wider economy and generally thought by economists to be efficient and welfare enhancing. Price differentiation (and other forms of differentiation) is common in networks with high fixed costs¹ such as mobile networks. Examples include consumers who pay different prices for different packages; or residential consumers who might pay different prices compared to commercial consumers. Differential pricing can also help smaller content providers compete more effectively, whether via differential pricing for a less well known service or within a content category, such as video, which is priced differently
- d) There is a range of new and innovative services emerging in this area, with some examples below:
 - **'Sponsored data'** – this is where customers can earn extra free data by responding to marketing surveys and/or shopping online with various brands or where data is funded by the CAP. These types of business models are similar to the premium rate and freephone models in the voice context and are likely to incentivise users to try new services and as a result, allow smaller players to compete. These would be prohibited or severely limited under the BEREC Guidelines as operators would be required to throttle or block data usage once a consumer reached their

¹ See for example: Varian (1996) Differential Pricing and Efficiency



purchased data cap, meaning that they could not access the data they have earned or are entitled to.

- **"Bundled data and content"** - A new model emerging is one where the content and data is bundled within one overall price. Mobile operators might, for example, combine the price of the data and content with a music offer, in return for specific tariffs or as an add-on option. This provides a worry free offer to customers who have purchased video or music services with their tariff. While again there may be specific circumstances where both the operator and the content provider have market power and where customers' choice is severely restricted, there may also be many examples where this type of service provides real benefits to both consumers, who can access the service they want without worrying and competition, helping smaller providers compete more effectively.
 - **Content categories** – this is where a category of content (social, music, video) is priced differently, either within a tariff or as a separate bundle. As recognised by the BEREC Guidelines, these are unlikely to affect customer choice. However, the Guidelines still prevent such differential pricing from applying when a data cap is reached – which causes confusion and reduces the value for both the end user and the content provider.
- e) Differential pricing can help make available services which are beneficial to society, whether e-government, education, health or other services. These services can be made available on a zero rating basis where an operator zero rates a site for all of its customers, irrespective of their particular tariff plans with no data usage restrictions. Vodafone has a number of examples of services which it has zero rated in different markets, including Wikipedia Zero in Kenya, the Vodacom e-school and Instant Schools for Africa programme (in the Vodacom markets) providing free access to educational content. In the UK, Vodafone will zero rate Childline (Vodafone already zero rates calls to the Childline helpline so that bill itemisation does not show that a child user has been calling Childline).
- f) The Guidelines will also impact access to services that improve customer experience. Across Europe today, Vodafone provides free access to a number of services which improve customer experience; for example, prepay top up pages which enable users to continue to use their IAS, My Vodafone app, which provides customer support and enables customers to check their balance and top up and Net Perform, an app which enables customers to measure the actual speed of their IAS service, which enables end-users to measure the speeds of their service at no cost. Indeed the Regulation itself seems to be recommending this approach given that Paragraph 159 of the draft BEREC Guidelines² requires operators to provide mechanisms for end users to check speeds at no cost (without any exception for the data charges incurred)
- g) This is supported by the European Commission, which stated that *"Zero rating does not block competing content and can promote a wider variety of offers for price sensitive users, give them interesting deals, and encourage them to use digital services. But we have to make sure that commercial practices benefit users and do not in practice lead to situations where end-users' choice is significantly reduced. Regulatory authorities will therefore have to monitor and ensure compliance with the rules."*³

²Paragraph 159 - It would help make the rights enshrined in the Regulation more effective if NRAs were to establish or certify one or more monitoring mechanisms that allow end-users to determine whether there is non-conformity of performance and to obtain related measurement results for use in proving non-conformity of performance of their IAS. The use of any certified mechanism **should not be subject to additional costs to the end-user** and should be accessible also to disabled end-users.

³ http://www.dimt.it/wp-content/uploads/2015/06/MEMO-15-5275_EN.pdf



Proposed changes to the Guidelines

- a) It is incorrect for the Guidelines to provide that data volume and speed characteristics must be applied in an application agnostic way (Paragraph 32). For example, an end user may agree to an IAS where there are different prices and volumes allocated to video and other services in order to encourage out of home video use, for example, on a worry free basis. There is no reference at all to an agnostic approach in Article 3(2) of the Regulation and this should be deleted.
- b) Paragraph 31 should be amended to restrict the ability of an NRA to review commercial practices to those relating to the IAS.
- c) The factors which are used to assess whether a commercial practice is permitted in Paragraph 43 and 44 should be amended to ensure that the materiality requirement set out in Recital 7 is incorporated and that all of the factors are reviewed together, rather than an NRA simply relying on one factor which may not take into account the full facts of the relevant practice.
- d) Article 3(1) creates a right for “end-users” to access and distribute information of their choice via their internet access service. This right only applies where an end-user has paid for an internet access service. The requirement in Paragraph 38 to prohibit a service where all applications are blocked (or slowed down) once the data cap is reached except for the zero-rated application(s) conflicts with the Regulation in two ways:
 - (1) it makes a judgement as to the impact of a commercial practice in the absence of any analysis of the impact on customer choice; and
 - (2) it forces ISPs to block content, which is not permitted under the Regulation⁴.

Prohibiting such offers is both likely to prevent zero rating itself (as content could not be marketed as free) and have a negative impact on both customers and CAPs in restricting the types of innovative services set out above. It would also have unintended results; restricting emergency calls delivered over the internet and prepay top up pages. It should be remembered that a data cap is not equivalent to blocking services; customers are always able to continue using all services provided they are willing to purchase an additional data allowance. Data caps should be encouraged by NRAs as they allow customers to control their spending and Paragraph 38 should be deleted.
- e) The Guidelines provide that the lower the data price, the higher the impact on customer choice will be. This again will very much depend on circumstances – if a customer care app is provided for free, it will make very little difference to customer choice but will have a significant benefit to the customer in controlling their data usage and spending. As a consequence, this restriction should be removed from Paragraph 45.
- f) There is an assumption that price differentiation for categories is less likely to have a negative impact on customer choice than price differentiation for specific services. Again, it will depend on the service; if a service is small and not well known and is zero rated, it could encourage competition in a market where another service is dominant. As a consequence, this restriction should be removed from Paragraph 45.

⁴ Note that in Italy, ISPs are required to block data traffic in a tariff by law once the data cap in relation to that tariff is reached (NRA Decision 326/10/CONS). It is clear blocking an individual service which is not subject to this cap would then be in breach of Article 3(3)



- g) The Guidelines also recommend consideration of the guidance provided in relation to “commercial practices” in Article 2(d) the Unfair Commercial Practices Directive (UCPD). It is worth noting that the draft Guidance published on 25 May provides that price discrimination (where a trader applies different prices to different groups of consumers for the same goods or services) is permitted/is not unreasonable if the consumer is informed in a transparent manner and provided it is not based on nationality and place of residence.
- o) If a customer chooses not to access specific services (e.g. parental controls), it should not be considered as an impairment of freedom of choice of end users. On the contrary, it is an enhancement of end-users’ choices and freedom – they should not be forced to access content they do not want to access. Paragraph 75 should be amended to reflect the right of the end user to choose what they want to access (and not to access).
- h) While it could be possible in some cases that such differential pricing might in theory be harmful to certain sites not benefitting from such a practice, an assessment based on the specific facts would need to be done. This would need to take into account the market positions of the ISP and/or the preferred site, the impact on other content providers and whether foreclosure actually occurs and the impact on customer choice – and also the benefits to both consumers and wider society that this would bring. This is why the Regulation has not prohibited differential pricing expressly, given that in many cases it will provide real benefits to consumers, while only a worst-case scenario raising the foreclosure concerns that one associates with predatory pricing.



Innovation by permission

The Guidelines go too far in imposing an “innovation by permission” approach. This can be seen in the following areas:

- by imposing a prior approval model for optimised non IAS services, with new requirements such as the need for “logical separation” and the lack of guidance in relation to charging for prioritisation
- by setting out a narrow and inconsistent definition of private networks – which includes WIFI hotspots in the scope of the regulation on the basis of a closed end user group but excludes services provided to an enterprise, despite the fact that the employees using that service will also be a closed end user group
- by taking a negative and restrictive approach towards traffic management, despite the fact that traffic management delivers reduced costs and ensures efficient usage of networks
- by using terminology which is based on existing networks and which may lock in today’s technologies and hamper the development of 5G
- by expanding the scope of Guidelines beyond the regulation of IAS to all commercial practices of ISPs

Optimisation of non IAS services

- (a) Article 3(5) is intended to meet the demand on the part of providers of content, applications and services to be able to provide electronic communication services other than internet access services, for which specific levels of quality are necessary. As technology develops, quality of service can bring supply-chain efficiencies across multiple sectors, including utilities, health, agriculture and automotive, which will place different demands on the network. For example:
- o An agriculture case can involve coverage of a fixed area, with infrequent, small updates over a period of ten years from deployed sensors.
 - o A robotic surgery case could involve ultra-low latency and high-data throughput with minimal packet loss for an hour.
 - o A consumer augmented reality service may involve low-latency video updates whilst transiting between radio cells – for example, a motorcycle rider with a heads-up display.
- (b) The Guidelines introduce a requirement for NRAs to verify whether, and to what extent, optimised delivery is objectively necessary to ensure one or more specific and key features of the applications, and to enable a corresponding quality assurance to be given to end-users. This suggests an ex ante approach should be taken, which goes against the requirements of the Regulation and would stifle the development of the internet of things⁵. The BEREC Guidelines should make it clear that any assessment must be done on an ex post basis and Paragraph 101 should be deleted.

⁵ Commission statement following Coreper approval of political agreement on 8 July : The Commission explained that in its view neither Article 4 nor Recital 11 of the agreed text of the draft Regulation introduces a special authorisation regime (i.e. different from the general authorisation regime under the Authorisation Directive). Article 4 states that NRAs shall closely monitor and ensure compliance with Article 3, and thus requires NRAs, as part of their ongoing monitoring activity, among others, to verify compliance of services other than internet access services, which are optimised for specific content, applications or services, with the criterion that such optimisation is objectively necessary and not a circumvention of the provisions regarding traffic management applicable to the internet access service.



- (c) The Guidelines also reintroduce the concept that non IAS optimised services must be “offered through a connection that is logically separated / ensure strict admission control”. This was extensively discussed before the adoption of the Regulation and in the end not included on the basis that there are several ways in which services other than IAS can be delivered and the Regulation should therefore not mandate specific technologies, especially not one which is unclear. Any reference to logically separated delivery of optimised services is incorrect in practice and should therefore be removed.
- (d) As stated by Robert O-Donoghue⁶, the question of whether optimisation of a particular service is “necessary” will depend upon whether there is an inherent characteristic or requirement that necessitates a higher (or otherwise different) level of quality than internet access services. It should be assessed from the perspective of demand on the part of content, application and service providers, using end-user demand as a proxy. Necessity must be assessed in the context of Article 3(5) being intended to apply to potentially innovative services. All else equal, this points in favour of a flexible (since otherwise innovation would be stymied). However, the Guidelines state that “NRAs should verify where the application could be provided over the IAS at the agreed and committed level of quality...”. This creates uncertainty and implies that NRAs should decide what level of quality is necessary rather than the CAP deciding what level of quality is needed for his or her purposes. Paragraph 104, 106 and 107 should make it clear that necessity should be assessed on the basis of the demand on the part of CAPs, using end-user demand as a proxy,
- (e) The draft Guidelines state: “Specialised services shall only be offered when the network capacity is sufficient such that the IAS is not degraded (e.g. due to increased latency or jitter or lack of bandwidth) by the addition of specialised services”, which is not consistent with the Regulation. The Regulation says that the provisioning of an optimised non IAS “shall not be to the detriment of the availability and general quality of the IAS” which is substantially different. The approach as stated in Paragraph 112 is not possible, as at a given point in time, the introduction of any new optimised non IAS (or service delivered over the IAS) would by definition, all things being equal, always lead to a ‘degradation’ of the IAS (loss of capacity for IAS) as all resources are shared. Paragraph 112 should be amended to provide that specialised services shall not lead to a deterioration of the general IAS quality for end-users. Moreover, lowering measured speeds and an increase in delay, as mentioned in the BEREC guidelines (Paragraph 120) are not adequate indicators of general internet quality, as internet speeds, delay, etc. are not static.
- (f) The analysis of the impact of optimised non IAS on IAS availability and general quality must take into account an essential fact: should any given optimised non IAS disappear, the usage served by this optimised non IAS would continue, even at a degraded quality, and would occupy more IAS resources because of the lack of optimisation. Therefore, the assessment of the capacity allocated to non IAS services which are optimised should be made net of the IAS capacity saved by having optimised non IAS provided outside IAS. It should also take into account investment already made into the network in anticipation of optimised services.
- (g) The Guidelines should also make it clear that providers are entitled to take into account “commercial considerations” when providing optimised services under Article 3(5). An operator who supports optimised services, content, or apps must be able to charge customers different prices for objectively different forms of optimised service, content, or app support. Indeed, the entire basis of Article 3(5) is that the optimised service, content, or app has an objectively higher quality requirement than normal

⁶ http://www.brickcourt.co.uk/news-attachments/ODonoghue_Pascoe_Net_Neutrality_in_the_EU.pdf



internet service access. If so, it also seems obvious that in so far as different types of services, content, or apps have higher quality requirements than other services, content, or apps, then the provider is entitled to reflect this higher level of service provision in its pricing.

Innovation in enterprise services

- a) BEREC has defined “electronic communications provided to the public” to mean services which are offered to any customer who wants to subscribe to the service or network. The Guidelines also clarify that offering services to a predetermined group of end-users could be outside the scope of the ECS provided to the public. If services are offered to enterprise customers are provided on a bespoke basis or not generally available to the public, we would assume that these services are excluded as they are offered to a pre-determined group of customers.
- b) This is essential to continue to provide guaranteed quality for enterprise customers who rely on specific service levels to compete on the global stage and also to deliver time critical services.
- c) Paragraphs 11 and 12 should therefore be amended to exclude all services which are not available to any customer but which are restricted to specific groups of customers.

Stifling innovation in traffic management

- (a) The Regulation provides that reasonable traffic management is permitted and also recognises that it contributes to the efficient use of network resources and optimisation of overall quality.
- (b) However, in Paragraph 58, the draft Guidelines are more restrictive than the Regulation. NRAs are required to monitor that ISPs properly dimension their network and application-specific congestion management should not be applied or accepted as a substitute for more structural solutions, such as expansion of network capacity. The draft Guidelines provide, incorrectly, that traffic management should only be used if there is no alternative (and less invasive) way of achieving this aim with the available network resources.
- (c) In practice traffic management is a critical part of network dimensioning and is also built into the network, which should be taken into consideration when assessing what is reasonable.
- (d) By 2020, the average subscriber in Europe will consume 12GB of mobile data per month as compared to 1.8GB today⁷. Investment has its limits and is not always the answer. The ability of ISPs to invest in additional capacity will be constrained by the economic returns which operators can expect to earn from that investment. Mobile operators in particular may also face technical constraints which limit the ability to increase capacity to meet demand for specialised services. This could arise where cells are already densely located and increased cell density would lead to interference which would degrade the cell performance, but could also arise because operators have exhausted all of their available spectrum resources or because it is simply not possible to find new sites for additional cells in very dense urban areas (or in the face of planning restrictions). It is worth noting in particular that latency needs cannot be addressed simply by adding more capacity as anticipated by the Guidelines. Furthermore, whilst increasing capacity is clearly part of the answer to the challenges of traffic growth and greater heterogeneity of demand, it is less likely to be the only solution for mobile access networks. The challenges of unpredictable peak demand, much greater spikes in demand, and the

⁷ <http://www.gsmamobileeconomy.com/> page 15



competing needs of services, mean that simply increasing capacity would require enormous investments in networks which would be redundant for much of the time. Instead, as set out in the Regulation, Paragraph 70 of the Guidelines should provide that even when addressing exceptional congestion, investment would only be necessary if congestion occurred for such extensive periods that a capacity expansion would be **economically** justified (Recital 15). As a result references to traffic management measures being “necessary” or “interfering” should be removed from Paragraph 58 and a provision should be included, to recognise the benefits of traffic management and the fact that it may also be an area of innovation and benefit to end users.

- (e) **Encrypted traffic;** There is a requirement in the BEREC Guidelines not to intentionally manage encrypted traffic differently to other traffic. However, in practice, operators are forced to treat encrypted traffic differently due to the fact that they are unable to recognise encrypted traffic as voice, video, gaming, browsing etc and therefore manage it appropriately. Consequently Paragraph 57 should be deleted and Paragraph 61 amended to provide that encrypted traffic may be treated differently if for objective technical reasons.

Future proof principles

- a) There are several areas within the BEREC Guidelines which may result in locking in today’s technologies and thereby limit network and service innovation, particularly in relation to traffic management, optimisation of non IAS and business services.
- b) The BEREC Guidelines are designed for today’s traffic management, which is focused on efficient and optimal management of limited network resources. 5G is designed to be far more attentive to user demand and responsiveness, whether the user is human or millions of things. 5G networks will utilise cloud, software and “network slicing” solutions, all of which will drive a more flexible, reactive network and may be managed by both the operator and third parties/providers of content. There should be a provision enabling ongoing review of what is reasonable traffic management given the development of technology and considering that different technologies may also co-exist at the same time (3G/4G/5G).
- c) According to a white paper published by Ericsson, some of the use cases requiring network slicing are set to be mobile broadband supporting more video, higher speeds and wide-scale availability; massive machine-type communication with transportation monitoring and control; mass market personalized TV with big data analytics; and critical machine type communication with remote operation. Each of these use cases is set to require a different configuration of requirements and parameters, which is why each use case will require its own network slice.
- d) While the Regulation focuses on the technical needs of the traffic, the draft guidelines go further and provide that “packets can normally be considered to be treated equally as long as all packets are processed agnostic to sender and receiver, to the content accessed or distributed, and to the application or service used or provided”. Traffic today and even more so in a 5G world will have different needs and cannot be processed in a way that is “agnostic to sender and receiver, to the content accessed or distributed, and to the application or service used or provided” and this wording should be removed. The ability to differentiate lies at the heart of any reasonable commercial strategy to manage traffic and consequently this should be deleted.

Scope and definitions



- a) Finally the BEREC Guidelines extend the scope beyond IAS and the intended protection of end users which is likely to have the impact of stifling innovation.
- b) For example, the BEREC Guidelines expressly provide that NRAs may take into account the interconnection policies and practices of ISPs where this seeks to circumvent the Regulation. This extends the concept of “commercial practices” beyond the retail provision of Internet Access Services. Interconnection is a competitive market which is separately regulated and falls outside the scope of the Regulation which is restricted to internet access. Paragraph 6 should therefore be amended to provide that NRAs may only take into account the commercial practices of ISPs in so far as they have the effect of limiting the exercise of end-user rights under Article 3(1) and in accordance with Recital 7 and Paragraph 47 should make it clear that interconnection falls outside the scope of the Regulation, not just Article 3(3).
- c) The BEREC Guidelines also extend the rights in the Regulation to CAPs even when they are not “end users” as defined in the Regulation. The BEREC Guidelines provide that CAPs are protected under the Regulation in so far as they use an IAS to reach other end-users. This is incorrect; they are protected insofar as they use their own Internet Access Service to distribute/access content under Article 3(1). They do not have rights which are independent of this, which should be clarified within the Guidelines. Paragraph 5 should therefore be amended to make it clear that CAPs should only be protected in so far as they use their IAS to reach other end users.



Retrospective requirements

The requirement to retrospectively amend contracts entered into before the date that the Regulation came into force is not consistent with the requirements of the Regulation and would be disproportionate for ISPs.

Article 4 provides that “Providers of internet access services shall ensure that any contract which includes internet access services specifies at least the following”.

Paragraph 130 of the draft BEREC Guidelines has interpreted this to mean all contracts, whether entered into before or after 30th April 2016. We do not agree with this interpretation for the following reasons:

1. This conflicts with Article 10, which provides that the Regulation shall apply “from 30 April 2016” except in relation to the specified exemptions.
2. Exceptions to this requirement are clearly set out in the Regulation – for example, Article 5(3) and Article 7, point 10 are stated to apply from 29 November 2015 and article 4(4) is stated to apply only to contracts concluded or renewed from 29 November 2015.
3. Conversely, where other regulation does apply to all contracts in the market, this is addressed explicitly (e.g. Regulation 531/2012 Article 7) and in addition, to avoid negative consequences on operators, a provision was included in that regulation (Recital 30) stating that modifications made to tariffs in order to comply with the requirements of the regulation should not trigger any termination right.
4. Similar wording is included in other Directives which have not been interpreted in a way that would suggest a requirement to apply to contracts entered into before the date the regulation comes into force. An example includes the Consumer Rights Directive which imposes new information requirements on contracts. However, this has been interpreted to only apply to contracts entered into after the date of commencement⁸.
5. The intent of Article 4(1)-(3) is to facilitate consumers’ informed choice – which is only relevant to new contracts.
6. Any other approach would also be unreasonable and disproportionate. Under Article 20(2) of the Universal Services Directive, subscribers have a right to withdraw from their contract without penalty upon notice of modification to the contractual conditions. Subscribers must be given adequate notice, not shorter than one month, of any such modification, and shall be informed at the same time of their right to withdraw, without penalty, from their contract if they do not accept the new conditions. This would effectively mean that huge cost would be incurred in notifying customers of the change and in addition, all customers would be entitled to terminate without penalty.

The incorrect interpretation by BEREC may stem from the changes made following the lawyer linguist review of the text. In particular, the following changes were made:

Article 4(1) – “*Providers of internet access services shall ensure that a contract which includes an internet access service shall specify at least the following information.*” This was amended to “*Providers of internet*

⁸ For example; in the Consumer Rights Act 2015 (Commencement No. 3, Transitional Provisions, Savings and Consequential Amendments) Order 2015 it states that: 6.—(1) The provisions brought into force by sub-Paragraphs (a) to (c) and (g) of article 3 of this Order do not apply to— (a) any contract entered into before 1st October 2015 which would, apart from these provisions, be covered by Parts 1 or 2 of the Act....



*access services shall ensure that **any** contract which includes internet access services **specifies** at least the following information”.*

The change from “an” to “any” and “shall specify” to “specifies” may be seen as widening the impact but this is clearly not the intention of the Regulation.

Consequently, Paragraph 130 of the Guidelines should be amended to make it clear that Articles 4(1), 4(2) and 4(3) only apply to all contracts entered into from 30 April 2016.



Transparency

Sufficient time should be given to NRAs and ISPs to implement the transparency requirements which should also take into account local regulation already in place.

- (a) Once the BEREC Guidelines are finalised, NRAs will need additional time to review their own implementation and also consider the existing transparency requirements that are already in place. We would suggest a transitional period of at least 12 months to enable operators and NRAs to implement the transparency requirements consistently. For example, ISPs will need to update coverage checkers to reflect speeds in a more accurate/specific manner than they may have previously – this will take time to model, deliver and test.
- (b) In relation to the specific requirements, these go beyond the requirements of the Regulation and are overly burdensome and in many cases will contradict local standards which are already in place. The Regulation does not mandate these requirements but simply sets out the need for clarity and for customers to be able to understand the information provided. In particular:
- The requirements in Paragraphs 127 and 134 to present high level information and then more detailed technical information in two parts should be removed. This goes beyond the requirements in the Regulation and would impose disproportionate burdens on ISPs. We also know from Ofcom research that the requirement from end users is for relevant and clear data and not more technical information⁹
 - Paragraph 129 should make it clear that ISPs are not responsible for factors which affect speed but are outside their control and that all speed parameters in the contract are deemed to be product-specific and not customer-individual
 - It is not possible to specify upload and download speeds as a single numerical value. ISPs can only present this information in speed ranges as these will depend on congestion, user equipment etc. Consequently, Paragraph 137 should be amended.
 - Requirements for the minimum speed to be in proportion to the maximum speed (Paragraph 141) may result in ISPs only indicating a lower maximum speed in the contract and should be removed.
 - The requirement for the maximum speed to be achievable once a day (Paragraph 142) does not reflect technological requirements and requirements for commercial offerings in mass markets. As a consequence of BEREC's interpretation of maximum speed, end-users would be less accurately informed and ISPs would be forced to lower the offered maximum speed even if that speed is available in most cases.
 - BEREC recommends a very specific definition of "normally available speed" as included in Art. 4(1) letter (d) which is not justified based on the Regulation and does not provide valuable information

⁹ The research identified a number of ways in which the quality of existing traffic management information could be further improved. Consumers participating in the research suggested that ISPs should:-

- provide an introduction to the traffic management information that summarises the relevance of the policy and how it affects their range of products;
- ensure that technical terms are explained in clear and simple language;
- provide specific and meaningful measurement criteria for when high usage or 'fair usage' policies are applied (for example hours of streaming allowed as opposed to how many megabytes); and
- use clear symbols to represent 'yes,' 'no' and 'not applicable' in the key information tables

<http://media.ofcom.org.uk/news/2013/consumer-guide-on-internet-traffic-management/>



for end-users. BEREC's proposed definition focuses mainly on time windows when networks tend to have bottlenecks; normally available speed shall reflect the performance measured 90% of time over peak hours. Such "normally" available speed will not reflect the experience of users during most of the day. Accordingly, BEREC's requirement that the maximum speed shall be proportionate to the normally available speed would unreasonably limit the indication of maximum speed. Such a prescriptive approach ignores both what is technically possible (which will vary across operators), but also overrides the possibility of more relevant/pertinent means of substantiating speeds being utilised. This should be left to NRAs to assess based on technical capabilities of operators in their market.

- BEREC's recommendations on Art. 4(1) letter (d) on advertisement should not go beyond the obligations laid down in the Regulation. Art. 4(1) only imposes obligations on ISPs to ensure that contracts include certain mandatory information. Art. 4(1) does not impose any obligations in terms of public advertisement practices and does not oblige ISPs to include any references to advertisement in the contract. An advertised tariff brand may apply to a variety of different contracts and does not necessary link to the individually agreed speed range
 - Paragraph 158 should make it clear that any monitoring system offered by an NRA also has to be subject to third party certification.
- (c) There is a need for clear, concise information rather than overloading with end user with comprehensive and technical information that they do not understand. Requirements must be proportionate, and must also take into account transparency measures implemented in each member state and how these can complement the requirements in the Regulation.
- (d) In relation to monitoring and remedies, it should be remembered that ISPs can only ensure quality within their own network. This requires that reliable measurement systems, which are supposed to indicate the actual performance, exclude interference from factors outside ISPs' networks.



Process

Under the Regulation, BEREC was required to consult with all stakeholders in the creation of the Guidelines. In practice this consultation has been very limited to date with no opportunities to see or comment on the draft Guidelines other than the very short consultation period between 6th June and 18th July. BEREC must take full account of all comments submitted via this consultation and also include a recommendation for NRAs to work with industry over the next 12 months to implement the requirements in a practical and proportionate manner.

BEREC's timeline for the adoption of guidelines was not synchronised with the deadlines provided by the Regulation. Despite the fact that most elements of the Regulation relating to the open internet came into force on 30 April 2016, the guidelines are only required to be published on 30 August 2016. Given this challenging timetable and the uncertainty created by the Regulation, the better course would have been for BEREC to involve all stakeholders in the drafting of the Guidelines as from the date of publication of the Regulation, to help with the implementation prior to the 30 April 2016.

In practice, BEREC has failed to engage with stakeholders and in particular with the industry, during the drafting of the guidelines. There has been no debate on the interpretation of the Regulation, no detailed technical consultation and subsequent requests for additional exchanges were refused.

BEREC has on the other hand received the views of an unbalanced panel of experts, during a closed door workshop in February 2016. In addition, the process of consultation of stakeholders, lasting six weeks from the 6 June to the 18 July before an adoption of the text planned in August risks being a formality, with no intention to make any substantive changes.

BEREC should, in the Guidelines, acknowledge that these timelines are challenging and that additional time will be needed by operators to implement the specific requirements recommended by the NRAs, who will also need additional time to consider the finalised BEREC Guidelines and provide local guidance.

Finally, given that the Regulation will be reviewed by 30 April 2019, BEREC should also review its Guidelines in advance of that review, especially given that the 5G standards should be established by 2018.



Proposed amendments

Guidelines	Recommended change	Comment
<p>5. CAPs are protected under the Regulation in so far as they use an IAS to reach other end-users. However, some CAPs may also operate their own networks and, as part of that, have interconnection agreements with ISPs; the provision of interconnection is a distinct service from the provision of IAS</p>	<p>5. CAPs are protected under the Regulation in so far as they use an<u>their</u> IAS to reach other end-users. However, some CAPs may also operate their own networks and, as part of that, have interconnection agreements with ISPs; the provision of interconnection is a distinct service from the provision of IAS</p>	<p>Reflects wording of Article 3(1) which provides that “end-users shall have the right to access and distribute information.....via their internet access service”</p>
<p>6. 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</p>	<p>6. NRAs may take into account the interconnection policies and<u>commercial</u> practices of ISPs in so far as they have the effect of limiting the exercise end-user rights under Article 3(1) <u>and in accordance with Recital 7</u>. 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</p>	
<p>11. Regarding virtual private networks (VPN) network services, these are typically provided by the ISP to anyone that wishes to enter a contract about the provision of such a service, and these would therefore typically be considered to be publicly available. The term ‘private’ describes the use of such a service which is usually limited to endpoints of the business entering the contract and is secured for internal communications. In accordance with Recital 17, to the extent that VPNs provide access to the internet, they are not a closed user group and should therefore be considered as publicly available ECS and are subject to</p>	<p>11. Regarding virtual private networks (VPN) network services, these are typically provided by the ISP to anyone that wishes to enter a contract about the provision of such a service, and these would therefore typically be considered to be publicly available. The term ‘private’ describes the use of such a service which is usually limited to endpoints of the business entering the contract and is secured for internal communications. In accordance with Recital 17, to the extent that VPNs provide access to the internet, they are not a closed user group and should therefore be considered as publicly available ECS and are subject to</p>	



<p>Articles 3(1)-(4). VPNs are further discussed in Paragraph 111</p>	<p>Articles 3(1)-(4) <u>unless they are also limited to a pre-determined group of end-users as set out above in Paragraph 10</u>. VPNs are further discussed in Paragraph 111</p>	
<p>12. The following examples could be considered as services or networks not being made publicly available, subject to an assessment of the facts of the case by NRAs as well as national practices:</p> <ul style="list-style-type: none"> • access to the internet provided by cafés and restaurants (e.g. Wi-Fi hotspots), since they typically are limited to customers of an enterprise rather than the general public; • Internal corporate networks, since they are typically limited to employees and other people connected with the business or organisation concerned. 	<p>12. The following examples could be considered as services or networks not being made publicly available, subject to an assessment of the facts of the case by NRAs as well as national practices:</p> <ul style="list-style-type: none"> • access to the internet provided by cafés and restaurants (e.g. Wi-Fi hotspots, e.g. cafes and airports), since they typically are limited to customers of an enterprise <u>the business in question rather than the general public</u>; • Internal corporate networks, since they are typically limited to employees and other people connected with the business or organisation concerned. 	<p>Should be clear that cafes and restaurants are examples only and also that corporate networks, where they are limited to a pre-determined group of end-users are not included, which is also consistent with the position on Wi-Fi hotspots.</p>
<p>17. BEREC understands a sub-internet service to be a service which restricts access to services or applications (e.g. banning the use of VoIP or video streaming) or enables access to only a pre-defined part of the internet (e.g. access only to particular websites). NRAs should take into account the fact that an ISP could easily circumvent the Regulation by providing such sub-internet offers. These services should therefore be considered to be in the scope of the Regulation and the fact that they provide a limited access to the internet should constitute an infringement of Articles 3(1), 3(2) and 3(3) of the Regulation. BEREC refers to these service offers as 'sub-internet services', as further discussed in Paragraphs 35 and</p>	<p>17. BEREC understands a sub-internet service to be a service which restricts access to services or applications (e.g. banning the use of VoIP or video streaming) or enables access to only a pre-defined part of the internet (e.g. access only to particular websites). NRAs should take into account the fact that an ISP could easily circumvent the Regulation by providing such sub-internet offers. These services should therefore be considered to be in the scope of the Regulation <u>where it is clear that they are intentionally circumventing the purpose of the Regulation</u> and the fact that they provide a limited access to the internet should constitute an infringement of Articles 3(1), 3(2) and 3(3) of the Regulation. BEREC</p>	<p>NRAs have the ability to review commercial practices conducted by providers of internet access services which limit the exercise of the rights of end-users laid down in Article 3(1). However such review should be consistent with Recital 7 and also the principles set out in the Guidelines (Paragraphs 43/44).</p>



52	refers to these service offers as 'sub-internet services', as further discussed in 35 and 52	
Guidelines	Recommended change	Comment
<p>18. Services where the number of reachable end-points is limited by the nature of the terminal equipment used with such services (e.g. services designed for communication with individual devices, such as e-book readers as well as machine-to-machine devices like smart meters etc.) are considered to be outside the scope of the Regulation unless they are used to circumvent this Regulation. They could use an IAS (but not provide an IAS nor constitute a substitute to an IAS), use a private network or constitute a specialised service. If these services are using an IAS or constitute a specialised service the connectivity service will be subject to the relevant rules applicable to IAS and specialised services in the Regulation</p>	<p>18. Services where the number of reachable end-points is limited by <u>the choice of the enduser or</u> the nature of the terminal equipment used with such services (e.g. services designed for communication with individual devices, such as e-book readers as well as machine-to-machine devices like smart meters etc.) are considered to be outside the scope of the Regulation unless they are used to circumvent this Regulation. They could use an IAS (but not provide an IAS nor constitute a substitute to an IAS), use a private network or constitute a specialised service. If these services are using an IAS or constitute a specialised service the connectivity service will be subject to the relevant rules applicable to IAS and specialised services in the Regulation</p>	<p>Ensures technology neutrality and also that there is no discrimination between terminal and network based solutions. For example, an app provider may want to provide a reading service via a SIM card which is free. As structured, the Guidelines would prevent this, making it more difficult for the reading SIM based solution to compete with a device based reading solution e.g. a Kindle. The Regulation however, only applies to IAS; so a service which is limited to specific end points is not regulated, whether limited via a terminal or a SIM or otherwise. One could also envisage a SIM created specifically for a health service, to provide free access to health apps and information or for education.</p>
<p>23.Thirdly, end-users have the right to use terminal equipment of their choice. Directive 2008/63/EC defines "terminal equipment" as "equipment directly or indirectly connected to the interface of a public telecommunication network". The right to choose terminal equipment therefore covers equipment which connects to the interface of the public telecommunications network. This interface, the network termination point (NTP), is defined in Article 2 letter (da) of the Framework Directive (2002/21/EC), meaning the physical point at which a subscriber is provided with access to a public communications</p>	<p>23.Thirdly, end-users have the right to use terminal equipment of their choice. Directive 2008/63/EC defines "terminal equipment" as "equipment directly or indirectly connected to the interface of a public telecommunication network". The right to choose terminal equipment therefore covers equipment which connects to the interface of the public telecommunications network. This interface, the network termination point (NTP), is defined in Article 2 letter (da) of the Framework Directive (2002/21/EC), meaning the physical point at which a subscriber is provided with access to a public communications</p>	<p>Requirement to ensure end-users can use terminal equipment of their choice must be consistent with terminals which are compatible with the networks.</p>



<p>network.</p>	<p>network. <u>Terminal equipment must comply with the interfaces of public networks which network operators have the obligation to publish under EU law DIRECTIVE 2008/63/EC on competition in the markets in telecommunications terminal equipment</u></p>	
<p>31. Commercial practices may consist of all relevant aspects of ISPs' commercial behaviour, including unilateral practices of the ISP.</p>	<p>31. Commercial practices may consist of all relevant aspects of ISPs' commercial behaviour <u>in relation to the supply of IAS, including unilateral practices of the ISP.</u></p>	<p>Article 3(2) clearly limits commercial practices to those relating to internet access services only</p>
<p>32. With regard to characteristics of IAS, agreeing on tariffs for specific data volumes and speeds of the IAS would not represent a limitation of the exercise of the end-users' rights (ref. Recital 7). Moreover, BEREC considers that, as long as the data volume and speed characteristics are applied in an application-agnostic way (applying equally to all applications), end-users' rights are likely to be unaffected by these characteristics and conditions</p>	<p>32. With regard to characteristics of IAS, agreeing on tariffs for specific data volumes and speeds of the IAS would not represent a limitation of the exercise of the end-users' rights (ref. Recital 7). Moreover, BEREC considers that, as long as the data volume and speed characteristics are applied in an application-agnostic way (applying equally to all applications), <u>that ensures end users rights are upheld</u>, end-users' rights are likely to be unaffected by these characteristics and conditions</p>	<p>Article 3(2) provides that ISPs and end-users can agree on commercial and technical conditions and the characteristics of internet access services such as price, data volumes or speed, and any commercial practices conducted by providers of internet access services provided that these do not limit the rights under Article 3(1) (not other articles). Note that as set out above, Article 3(1) provides a right to access and distribute information of the end users <u>choice and in respect to the use of "their" IAS.</u></p>
<p>34. When assessing agreements or commercial practices, NRAs should also take Article 3(3) into account given that, typically, infringements of Article 3(3) (e.g. technical practices, such as blocking access to applications or types of applications) will directly limit the exercise of the end-users' rights, and constitute an infringement of Articles 3(2) and 3(1). Details about this assessment can be found in Paragraphs 46-89.</p>	<p>34. When assessing agreements or commercial practices, NRAs should also take Article 3(3) into account given that, typically, infringements of Article 3(3) (e.g. technical practices, such as blocking access to applications or types of applications) will <u>directly materially</u> limit the exercise of the end-users' rights, and constitute an infringement of Articles 3(2) and 3(1). Details about this assessment can be found in Paragraphs 46-89.</p>	<p>Reflects wording in Recital 7</p>



<p>35. If an ISP contractually (as opposed to technically) banned the use of specific content, or one or more applications/services or categories thereof (for example, banning the use of VoIP) this would limit the exercise of the end-user rights set out in Article 3(1). This would be considered to be an offer of a sub-internet service (see Paragraph 17).</p>	<p>35. <u>If, as part of a contract for an Internet Access Service,</u> an ISP contractually (as opposed to technically) banned the use of specific content, or one or more applications/services or categories thereof (for example, banning the use of VoIP) this would limit the exercise of the end-user rights set out in Article 3(1). This would be considered to be an offer of a sub-internet service (see 17).</p>	
<p>38. A 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) first (and third) sub Paragraph (see Paragraph 52).</p>	<p>38. A 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) first (and third) (see 52).</p>	<p>This should only be prevented where there is material impact on customers' choice, as set out in Recital 7. BEREC has no mandate to require ISPs to block specific content which is not required to be blocked pursuant to Article 3(2) once a data cap is reached.</p>
<p>39. The ISP could either apply or offer zero-rating to an entire category of applications (e.g. all video or all music streaming applications) or only to certain applications thereof (e.g. its own services, one specific social media application, the most popular video or music applications). In the latter case, an end-user is not prevented from using other music applications. However, the zero price applied to the data traffic of the zero-rated music application (and the fact that the data traffic of the zero-rated music application does not count towards any data cap in place on the IAS) creates an economic incentive to use that music application instead of competing ones. The effects of such a practice applied to a specific application are more likely to "undermine the essence of the end-users' rights" or lead to</p>	<p>39. The ISP could either apply or offer zero-rating to an entire category of applications (e.g. all video or all music streaming applications) or only to certain applications thereof (e.g. its own services, one specific social media application, the most popular video or music applications). In the latter case, an end-user is not <u>Such a service should only be prohibited prevented from using other music applications. However, the zero price applied to the data traffic of the zero-rated music application (and the fact that the data traffic of the zero-rated music application does not count towards any data cap in place on the IAS) creates an economic incentive to use that music application instead of competing ones. The effects of such a practice applied to a specific application are more</u></p>	<p>Recital 7 makes it clear that NRAs must take into account the respective market positions of those providers of internet access services, and of the providers of content, applications and services, that are involved.</p>



<p>circumstances where “end-users’ choice is materially reduced in practice” (Recital 7) than when it is applied to an entire category of applications.</p>	<p>likely to where it “undermine the essence of the end-users’ rights” or leads to circumstances where “end-users’ choice is materially reduced in practice” (Recital 7) than when it is applied to an entire category of applications based on the individual facts.</p>	
<p>43. In light of the aforementioned considerations, BEREC considers that a comprehensive assessment of such commercial and technical conditions may be required, taking into account in particular:</p> <ul style="list-style-type: none"> • the goals of the Regulation and whether the relevant agreements and/or commercial practices circumvent these general aims; • the market positions of the ISPs and CAPs involved - a limitation of the exercise of end-user rights is more likely to arise where an ISP or a CAP has a ‘strong’ market position (all else being equal) compared to a situation where the ISP or CAP has a ‘weak’ market position. The market positions should be analysed in line with competition law principles; • the effects on consumer and business customer end-user rights, which encompasses an assessment of inter alia: <ul style="list-style-type: none"> o whether there is an effect on the range and diversity of content and applications which consumer end-users may use and, if so, whether the range and diversity of applications which end-users can choose from is reduced in practice; o whether the end-user is 	<p>43. In light of the aforementioned considerations, BEREC considers that a comprehensive assessment of such commercial and technical conditions may be required, taking into account in particular:</p> <ul style="list-style-type: none"> • the goals of the Regulation and whether the relevant agreements and/or commercial practices circumvent these general aims; • the market positions of the ISPs and CAPs involved - a limitation of the exercise of end-user rights is more likely to arise where an ISP or a CAP has a ‘strong’ market position (all else being equal) compared to a situation where the ISP or CAP has a ‘weak’ market position. The market positions should be analysed in line with competition law principles; • the effects on consumer and business customer end-user rights, which encompasses an assessment of inter alia: <ul style="list-style-type: none"> o whether there is an effect on the range and diversity of content and applications which consumer end-users may use and, if so, whether the range and diversity of applications which end-users can choose from is <u>materially</u> reduced in practice; o whether the end-user is 	<p>CAPs only have rights in respect of the use of their IAS.</p>



<p>incentivised to use, for example, certain applications;</p> <ul style="list-style-type: none">o whether the IAS subscription contains characteristics which materially reduce end-user choice (see in more detail in Paragraph 45)the effects on CAP end-user rights, which encompasses an assessment of, inter alia:<ul style="list-style-type: none">o whether there is an effect on the range and diversity of content and applications which CAPs provide, and to what extent the range and diversity of applications may not be effectively accessed;o whether CAPs are materially discouraged from entering the market or forced to leave the market, or whether there are other material harms to competition in the market concerned (see in more detail in the fourth bullet of Paragraph 45 with regard to offers);o whether the continued functioning of the internet ecosystem as an engine of innovation is impacted, for example, whether it is the ISP that picks winners and losers, and on the administrative and/or technical barriers for CAPs to enter into agreements with ISPs. <ul style="list-style-type: none">• the scale of the practice and the presence of alternatives - a practice is more likely to limit the exercise of end-user rights in a situation where, for example, many endusers are concerned and/or there are few alternative offers and/or competing ISPs for the end-users to choose from;	<p>incentivised to use, for example, certain applications</p> <p><u>in a way that will result in materially reducing customer choice;</u></p> <ul style="list-style-type: none">o whether the IAS subscription contains characteristics which materially reduce end-user choice (see in more detail in Paragraph 45)the effects on CAP end-user rights<u>competition</u>, which encompasses an assessment of, inter alia:<ul style="list-style-type: none">o whether there is a <u>material</u> effect on the range and diversity of content and applications which CAPs provide, and to what extent the range and diversity of applications may not be effectively accessed;o whether CAPs are materially discouraged from entering the market or forced to leave the market, or whether there are other material harms to competition in the market concerned (see in more detail in the fourth bullet of Paragraph 45 with regard to offers);o whether the continued functioning of the internet ecosystem as an engine of innovation is <u>materially</u> impacted, for example, whether it is the ISP that picks winners and losers, and on the administrative and/or technical barriers for CAPs to enter into agreements with ISPs. <ul style="list-style-type: none">• the scale of the practice and the presence of alternatives - a practice is more likely to limit the exercise of end-user	
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<ul style="list-style-type: none"> the effect on freedom of expression and media pluralism (ref. Recital 13). 	<p>rights in a situation where, for example, many endusers are concerned and/or there are few alternative offers and/or competing ISPs for the end-users to choose from;</p> <p>the effect on freedom of expression and media pluralism (ref. Recital 13).</p>	
<p>44. Each of these factors may contribute to a material reduction in end-user choice and hence a limitation of the exercise of end-users' rights under Article 3(2). In any specific case, the presence of one or more of these factors may in fact limit the exercise of end-user rights.</p>	<p>44. Each of these <u>These</u> factors may contribute to a material reduction in end-user choice and hence a limitation of the exercise of end-users' rights under Article 3(2). In any specific case, the presence of one or more of all of these factors should be considered together when assessing whether end users choice is materially reduced in practice these factors may in fact limit the exercise of end-user rights.</p>	<p>Recital 7 requires NRAs to consider a number of factors, including the respective market positions of those providers of internet access services, and of the providers of content, applications and services, that are involved. It would be incorrect to make a finding only on the basis of one of the factors set out in Paragraph 43.</p>
<p>45. In applying such a comprehensive assessment, NRAs and other competent authorities may also take into account the following considerations:</p> <ul style="list-style-type: none"> Any agreements or practices which have an effect similar to technical blocking of access (see Paragraph 52) are likely to infringe Articles 3(1) and 3(2), given their strong impact on end-user rights. Commercial practices which apply a higher price to the data associated with a specific application or class of applications are likely to limit the exercise of endusers' rights because of the potentially strong disincentive created to the use of the application(s) affected, and consequent restriction of choice. Also, the 	<p>45. In applying such a comprehensive assessment, NRAs and other competent authorities may also take into account the following considerations:</p> <ul style="list-style-type: none"> Any agreements or practices which have an effect similar to technical blocking of access (see Paragraph 52) are likely to infringe Articles 3(1) and 3(2), given their strong impact on end-user rights. Commercial practices which apply a higher price to the data associated with a specific application or class of applications are likely to limit the exercise of endusers' rights because of the potentially strong disincentive created to the use of the application(s) affected, and consequent restriction of choice. Also, the 	<p>Recital 7 requires this assessment to be based on the individual facts and on an ex post basis.</p>



<p>possibility that higher prices may be applied to an application or category of application may discourage the development of new applications.</p> <ul style="list-style-type: none"> • End-users of an IAS whose conditions include a lower (or zero) price for the data associated with a specific application or class of applications will be incentivised to use the zero-rated application or category of applications and not others. Furthermore, the lower the data cap, the stronger such influence is likely to be. • Price differentiation between individual applications within a category has an impact on competition between providers in that class. It may therefore be more likely to impact the “continued functioning of the internet ecosystem as an engine of innovation” and thereby undermine the goals of the Regulation than would price differentiation between classes of application. 	<p>possibility that higher prices may be applied to an application or category of application may discourage the development of new applications.</p> <p>• End-users of an IAS whose conditions include a lower (or zero) price for the data associated with a specific application or class of applications will be incentivised to use the zero-rated application or category of applications and not others. Furthermore, the lower the data cap, the stronger such influence is likely to be.</p> <p>Price differentiation between individual applications within a category has an impact on competition between providers in that class. It may therefore be more likely to impact the “continued functioning of the internet ecosystem as an engine of innovation” and thereby undermine the goals of the Regulation than would price differentiation between classes of application.</p>	
<p>47. As Article 3(3) concerns the equal treatment of all traffic “when providing internet access service”, the scope of this Paragraph excludes IP interconnection practices</p>	<p>47. As Article 3(3) <u>this Regulation</u> concerns the equal treatment of all traffic “when providing internet access service”, the scope of this Paragraph excludes IP interconnection practices</p>	
<p>50. NRAs should take into account that equal treatment does not necessarily imply that all end-users will experience the same network performance or quality of service (QoS). Thus, even though packets can experience varying transmission performance (e.g. on parameters</p>	<p>50. NRAs should take into account that equal treatment does not necessarily imply that all end-users will experience the same network performance or quality of service (QoS). Thus, <u>even though p</u>ackets can experience varying transmission performance (e.g. on parameters</p>	<p>5G is designed to be tailored to the needs of the sender and receiver and current drafting of these regulations should not lock in today’s technologies.</p>



<p>such as latency or jitter), packets can normally be considered to be treated equally as long as all packets are processed agnostic to sender and receiver, to the content accessed or distributed, and to the application or service used or provided. Endpoint-based congestion control (a typical example is Transmission Control Protocol (TCP) congestion control) does not contravene Article 3(3) first sub Paragraph since, by definition, it takes place within terminal equipment and terminal equipment is not covered by the Regulation. NRAs should consider network-internal mechanisms of ISPs which assist endpoint-based congestion control to be in line with equal treatment, and therefore permissible, as long as these mechanisms are agnostic to the applications running in the endpoints and a circumvention of the Regulation does not take place</p>	<p>such as latency or jitter), packets can normally be considered to be treated equally as long as all packets are processed agnostic to sender and receiver, to the content accessed or distributed, and to the application or service used or provided. Endpoint-based congestion control (a typical example is Transmission Control Protocol (TCP) congestion control) does not contravene Article 3(3) first sub Paragraph since, by definition, it takes place within terminal equipment and terminal equipment is not covered by the Regulation. NRAs should consider network-internal mechanisms of ISPs which assist endpoint-based congestion control to be in line with equal treatment, and therefore permissible, as long as these mechanisms are agnostic to the applications running in the endpoints and a circumvention of the Regulation does not take place</p>	
<p>52. In case of agreements or practices involving technical discrimination, this would constitute unequal treatment which would not be compatible with Article 3(3). This holds in particular for the following examples:</p> <ul style="list-style-type: none">• A practice where an ISP blocks, slows down, restricts, interferes with, degrades or discriminates access to specific content, one or more applications (or categories thereof), except when justified by reference to the exceptions of Article 3(3) third sub Paragraph.• IAS offers where access to the internet is restricted to a limited set of applications or endpoints by the end-user's ISP (sub-internet service offers) infringe	<p>52. In case of agreements or practices involving technical discrimination, this would constitute unequal treatment which would not be compatible with Article 3(3). This holds in particular for the following examples:</p> <ul style="list-style-type: none">• A practice<u>IAS offers</u> where an ISP blocks, slows down, restricts, interferes with, degrades or discriminates access to specific content, one or more applications (or categories thereof), except when justified by reference to the exceptions of Article 3(3) third sub Paragraph.•	



<p>upon Article 3(3) first sub Paragraph, as such offers entail blocking of applications and / or discrimination, restriction or interference related to the origin or destination of the information.</p> <ul style="list-style-type: none"> • A zero-rating offer where all applications are blocked (or slowed down) once the data cap is reached except for the zero-rated application(s), as it would infringe Article 3(3) first (and third) sub Paragraph. 		
<p>57...In particular, the mere fact that network traffic is encrypted should not be deemed by NRAs to be an objective justification for different treatment by ISPs</p>	<p>57...In particular, the mere fact that network traffic is encrypted should not be deemed by NRAs to be an objective justification for different treatment by ISPs</p>	
<p>58. When considering whether a traffic management measure is proportionate, NRAs should consider the following</p> <ul style="list-style-type: none"> • There has to be a legitimate aim for this measure, as specified in the first sentence of Recital 9, namely contributing to an efficient use of network resources and to an optimisation of overall transmission quality. • The traffic management measure has to be suitable to achieve the aim (with a requirement of evidence to show it will have that effect and that it is not manifestly inappropriate). • The traffic management measure has to be necessary to achieve the aim. • There is not a less interfering and equally effective alternative way of achieving this aim (e.g. equal treatment without categories of traffic) with the available network resources. • The traffic management 	<p>58. When considering whether a traffic management measure is proportionate, NRAs should consider the following</p> <ul style="list-style-type: none"> • There has to be a legitimate aim for this measure, as specified in the first sentence of Recital 9, namely contributing to an efficient use of network resources and to an optimisation of overall transmission quality. • The traffic management measure has to be suitable to achieve the aim (with a requirement of evidence to show it will have that effect and that it is not manifestly inappropriate). • The traffic management measure has to be necessary to achieve the aim. • There is not a less interfering and equally effective alternative way of achieving this aim (e.g. equal treatment without categories of traffic) with the available network resources. <p>The traffic management measure has to be appropriate, e.g. to</p>	<p>This goes beyond the Regulation. Recital 9 provides that "The objective of reasonable traffic management is to contribute to an efficient use of network resources and to an optimisation of overall transmission quality....The requirement for traffic management measures to be non-discriminatory does not preclude providers of internet access services from implementing, in order to optimise the overall transmission quality". Traffic management measures such as optimisation reduce costs for the customer and ensure an efficient use of the network but there may be different ways of achieving this. ISPs should be free to address these aims in different ways.</p>



<p>measure has to be appropriate, e.g. to balance the competing requirements of different traffic categories or competing interests of different groups.</p>	<p>balance the competing requirements of different traffic categories or competing interests of different groups. <u>Traffic management will evolve over time, with different traffic management needed for different technologies and should be seen as an area of innovation and overall benefit to end users.</u></p>	
<p>61. Furthermore, as explained in Recital 9, ISPs' traffic management measures are "responding to" the QoS requirements of the categories of traffic in order to optimise the overall transmission quality and enhance the user-experience. In order to identify categories of traffic, the ISP relies on the information provided by the application when packets are sent into the network. (See also Paragraph 67 regarding which information can legitimately be considered by ISPs). Encrypted traffic should not be treated less favourably by reason of its encryption</p>	<p>61. Furthermore, as explained in Recital 9, ISPs' traffic management measures are "responding to" the QoS requirements of the categories of traffic in order to optimise the overall transmission quality and enhance the user-experience. In order to identify categories of traffic, the ISP relies on the information provided by the application when packets are sent into the network. (See also Paragraph 67 regarding which information can legitimately be considered by ISPs). Encrypted traffic should not be treated less favourably by reason of its encryption <u>unless for objective technical reasons.</u></p>	
<p>70. This does not prevent, per se, a trigger function to be implemented and in place (but with the traffic management measure not yet effective) on an ongoing basis inasmuch as the traffic management measure only becomes effective in times of necessity. Necessity can materialise several times, or even regularly, over a given period of time. However, where traffic management measures are permanent or recurring, their necessity might be questionable and NRAs should, in such scenarios, consider whether the traffic management measures</p>	<p>70. This does not prevent, per se, a trigger function to be implemented and in place (but with the traffic management measure not yet effective) on an ongoing basis inasmuch as the traffic management measure only becomes effective in times of necessity. Necessity can materialise several times, or even regularly, over a given period of time. However, where traffic management measures are permanent or recurring <u>for such extensive periods that a capacity expansion would be economically justified</u>, their necessity might be questionable</p>	<p>Traffic management and investment should not be seen as alternatives, but rather as complimentary measures, which deliver a lower cost, higher quality service to the customer. The only forms of traffic management which are restricted by necessity are those addressed in the third sub Paragraph of Article 3(3). Necessity should also take into account factors which restrict additional investment e.g. spectrum, interference, planning restrictions etc.</p>



<p>can still be qualified as reasonable within the meaning of Article 3(3) second sub Paragraph</p>	<p>and NRAs should, in such scenarios, consider whether the traffic management measures can still be qualified as reasonable within the meaning of Article 3(3) second sub Paragraph</p>	
<p>75. By way of example, ISPs should not block, slow down, alter, restrict, interfere with, degrade or discriminate advertising when providing an IAS, unless the conditions of the exceptions a), b) or c) are met in a specific case. In contrast to network-internal blocking put in place by the ISP, terminal equipment-based restrictions put in place by the enduser are not targeted by the Regulation</p>	<p>75. By way of example, ISPs should not block, slow down, alter, restrict, interfere with, degrade or discriminate advertising when providing an IAS, unless the conditions of the exceptions a), b) or c) are met in a specific case. In contrast to network-internal blocking put in place by the ISP, terminal equipment-based restrictions put in place by the enduser are not targeted by the Regulation</p>	<p>Customers should be free to impose parental controls or other restrictions whether via an app or a network based solution, provided this is consent based as set out in Article 3(2). There is nothing in the Regulation which forces a customer to access content they do not wish to access.</p>
<p>101. NRAs should “verify” whether the application could be provided over IAS at the agreed and committed level of quality, and whether the requirements are plausible in relation to the application, or whether they are instead set up in order to circumvent the provisions regarding traffic management measures applicable to IAS, which would not be allowed</p>	<p>101. NRAs should “verify” whether the application could be provided over IAS at the agreed and committed level of quality, and whether the requirements are plausible in relation to the application, or whether they are instead set up in order to circumvent the provisions regarding traffic management measures applicable to IAS, which would not be allowed</p>	<p>The NRA already has the ability to request information which is covered in 104 – this Paragraph seems to recommend an ex ante “innovation by permission” approach</p>
<p>103. When assessing whether the practices used to provide specialised services comply with Article 3(5) first sub Paragraph, NRAs should apply the approach set out in Paragraphs 104-111)</p>	<p>103. When assessing whether the practices used to provide specialised services comply with Article 3(5) first sub Paragraph, NRAs should apply the approach set out in Paragraphs 104-111). <u>NRAs should not request information prior to the launch of a service.</u></p>	
<p>104. NRAs could request from the provider relevant information about their specialised services, using powers conferred by Article 5(2). In their responses, the provider should give information about their specialised services, including what the relevant QoS requirements are (e.g. latency,</p>	<p>104. NRAs could request from the provider relevant information about their specialised services, using powers conferred by Article 5(2). In their responses, the provider should give information about their specialised services, including what the relevant QoS requirements are (e.g. latency,</p>	<p>This issue was analysed by Robert O’Donoghue who stated that “In this regard it is important to note that recital 16 articulates the basis for Article 3(5) as follows: “There is demand on the part of providers of content, applications and services to be</p>



<p>jitter and packet loss), and any contractual requirements. Furthermore, the “specific level of quality” should be specified, and it should be demonstrated that this specific level of quality cannot be assured over the IAS</p>	<p>jitter and packet loss), and any contractual requirements. Furthermore, the “specific level of quality” should be specified <u>and it should be demonstrated that this is necessary from the perspective of demand on the part of CAPs, using end-user demand as a proxy, and it should be demonstrated that this specific level of quality cannot be assured over the IAS</u></p>	<p>able to provide electronic communication services other than internet access services, for which specific levels of quality, that are not assured by internet access services, are necessary.” Thus, in the first instance, the concept of necessity relates to (i) necessary from the perspective of the demand of providers of content, applications and services and (ii) necessary to ensure particular quality levels that are not assured by (mere) internet access. (i) refers to the requirements of providers of content, applications and services; (ii) refers to the quality requirements that result from that demand on the part of providers of content, applications and services”¹⁰</p>
<p>106. If assurance of a specific level of quality is objectively necessary, this cannot be provided by simply granting general priority over comparable content. It is understood that specialised services are offered through a connection that is logically separated from the IAS to assure these levels of quality. The connection is characterised by an extensive use of traffic management in order to ensure adequate service characteristics and strict admission control.</p>	<p>106. If assurance of a specific level of quality is objectively necessary, this cannot be provided by simply granting general priority over comparable content <u>but must be assessed from the perspective of demand on the part of content, application and service providers, using end-user demand as a proxy. NRAs must also assess necessity in the context of Article 3(5) being intended to apply to potentially innovative services. Providers are entitled to take into</u></p>	<p>The reference to comparable content stems from Recital 16 of the TSM Regulation. However, a natural reading of that Recital suggests that BEREC’s interpretation is overly narrow in scope, as BEREC has failed to take due account of the full text of Recital 16¹¹.</p> <p>Recital 16 suggests that end-user demand may be used as a proxy for demand on the part of providers of content,</p>

¹⁰ http://www.brickcourt.co.uk/news-attachments/ODonoghue_Pascoe_Net_Neutrality_in_the_EU.pdf

¹¹ Refer to Recital 16 of the TSM Regulation, where it provides that “National regulatory authorities should verify whether and to what extent such optimisation is objectively necessary to ensure one or more specific and key features of the content, applications or services and to enable a corresponding quality assurance to be given to end-users, rather than simply granting general priority over comparable content, applications or services available via the internet access service and thereby circumventing the provisions regarding traffic management measures applicable to the internet access services”.



	<p><u>account “commercial considerations” when providing optimised services under Article 3(5). An operator who supports optimised services, content, or apps can charge customers different prices for objectively different forms of optimised service, content, or app support. If assurance of a specific level of quality i.</u> It is understood that specialised services are offered through a connection that is logically separated from the IAS to assure these levels of quality. The connection is characterised by an extensive use of traffic management in order to ensure adequate service characteristics and strict admission control.</p>	<p>applications and services.</p> <p>If read in its broader context, the provision of 5G technologies could be a highly relevant issue in determining how NRAs interpret what is considered to be “objectively necessary” in terms of traffic management. Depending on the interpretation which NRAs may accord to that expression, the net result is that it may allow the provision of some 5G technologies, but not others.</p>
<p>107. NRAs should verify whether, and to what extent, optimised delivery is objectively necessary to ensure one or more specific and key features of the applications, and to enable a corresponding quality assurance to be given to end-users. To do this, the NRA should assess whether an electronic communication service, other than IAS, requires a level of quality that cannot be assured over an IAS. If not, these electronic communication services are likely to circumvent the provisions of the Regulation and are therefore not allowed.</p>	<p>107. NRAs should verify whether, and to what extent, optimised delivery is objectively necessary to ensure one or more specific and key features of the applications<u>meet the demands of the CAP</u>, and to enable a corresponding quality assurance to be given to end-users.To do this, the NRA should assess whether an electronic communication service, other than IAS, requires a level of quality that cannot be assured over an IAS. If not, these electronic communication services are likely to circumvent the provisions of the Regulation and are therefore not allowed. <u>NRAs should also take into account the need to encourage innovation via optimisation</u></p>	<p>As stated by Robert O'Donoghue, “In conclusion, the question of whether optimisation of a particular service is “necessary” will depend upon whether there is an inherent characteristic or requirement that necessitates a higher (or otherwise different) level of quality than internet access services. ‘It should be assessed from the perspective of demand on the part of content, application and service providers, using end-user demand as a proxy. Necessity must be assessed in the context of Article 3(5) being intended to apply to potentially innovative services. All else equal, this points in favour of a flexible (since otherwise innovation would be stymied).”¹²</p>
<p>112. Specialised services shall only be offered when the</p>	<p>112. Specialised services shall only be offered when the</p>	<p>This is a key point; Article 3(5) provides that specialised</p>

¹² http://www.brickcourt.co.uk/news-attachments/ODonoghue_Pascoe_Net_Neutrality_in_the_EU.pdf



<p>network capacity is sufficient such that the IAS is not degraded (e.g. due to increased latency or jitter or lack of bandwidth) by the addition of specialised services. Both in the short and in the long term, specialised services shall not lead to a deterioration of the general IAS quality for end-users. This can, for example, be achieved by additional investments in infrastructure which allow for additional capacity so that there is no negative impact on IAS quality</p>	<p>network capacity is sufficient such that the IAS is not degraded (e.g. due to increased latency or jitter or lack of bandwidth) by the addition of specialised services. Both in the short and in the long term, specialised services shall not lead to a deterioration of the general IAS quality for end-users. This can, for example, be achieved by additional investments in infrastructure which allow for additional capacity so that there is no negative impact on IAS quality</p>	<p>services “shall not be to the detriment of the availability or general quality of internet access services for end-users”. However, many specialised services will have some impact e.g. VoLTE.</p>
<p>114. This implies that, in order to ensure the quality of specialised services, ISPs would have to ensure sufficient network capacity for both any IAS offers provided over the infrastructure and for specialised services. If not, provision of specialised services would not be allowed under the Regulation.</p>	<p>114. This implies that, in order to ensure the quality of specialised services, ISPs would have to ensure sufficient network capacity for both any IAS offers provided over the infrastructure and for specialised services. If not, provision of specialised services would not be allowed under the Regulation. <u>Consideration should also be given to the capacity which would be used by the relevant service if it is not optimised and its impact on other IAS offers and the investment already made within the network for both IAS and specialised services.</u></p>	
<p>115. NRAs could request information from ISPs regarding how sufficient capacity is ensured, and at which scale the service is offered (e.g. networks, coverage and end-users). NRAs could then assess how ISPs have estimated the additional capacity required for their specialised services and how they have ensured that network elements and connections have sufficient capacity available to provide specialised services in addition to any IAS provided.</p>	<p>115. NRAs could request information from ISPs regarding how sufficient capacity is ensured, and at which scale the service is offered (e.g. networks, coverage and end-users). NRAs could then assess how ISPs have estimated the additional capacity required for their specialised services and how they have ensured that network elements and connections have sufficient capacity available to provide specialised services in addition to any IAS provided. <u>This assessment must be done on an</u></p>	



	<p><u>ex post basis. ISPs may have already provisioned their networks in such a way that capacity for specialised services has been anticipated and in fact, this leads to a better quality of service for IAS as the additional resource is a shared one</u></p>	
<p>118. While IAS and specialised services directly compete for the dedicated part of an end-user's capacity, the end-user himself may determine how to use it. Therefore, NRAs should not consider this an infringement of Article 3(5) second sub Paragraph, as long as the end-user is informed pursuant to Article 4(1)(c) of the likely or possible impact on his IAS and can still obtain a minimum speed for any IAS subscribed to in parallel. NRAs should not consider it to be to the detriment of the general quality of IAS when activation of the specialised service by the individual end-user only affects his own IAS. However, detrimental effects should not occur in those parts of the network where capacity is shared between different end-users.</p>	<p>118. While IAS and specialised services directly compete for the dedicated part of an end-user's capacity, the end-user himself may determine how to use it. Therefore, NRAs should not consider this an infringement of Article 3(5) second sub Paragraph, as long as the end-user is informed pursuant to Article 4(1)(c) of the likely or possible impact on his IAS and can still obtain a minimum speed for any IAS subscribed to in parallel. NRAs should not consider it to be to the detriment of the general quality of IAS when activation of the specialised service by the individual end-user only affects his own IAS. However, detrimental effects should not occur in those parts of the network where capacity is shared between different end-users.</p>	
<p>127.NRAs should ensure that ISPs include in the contract and publish the information referred to in Article 4(1) letters (a) to (e), preferably presented in two parts (levels of detail): The first part should provide high-level (general) information. The information about the IAS</p>	<p>127.NRAs should ensure that ISPs include in the contract and publish the information referred to in Article 4(1) letters (a) to (e); preferably presented in two parts (levels of detail): The first part should provide high-level (general) information.The information about the IAS</p>	<p>This goes beyond the requirements in the Regulation and would impose disproportionate burdens on ISPs. We also know from Ofcom research that the requirement from end users is for relevant data and not more technical information¹³</p>

¹³ The research identified a number of ways in which the quality of existing traffic management information could be further improved. Consumers participating in the research suggested that ISPs should:-

- provide an introduction to the traffic management information that summarises the relevance of the policy and how it affects their range of products;
- ensure that technical terms are explained in clear and simple language;
- provide specific and meaningful measurement criteria for when high usage or 'fair usage' policies are applied (for example hours of streaming allowed as opposed to how many megabytes); and



<p>provided should include, for example, an explanation of speeds, examples of popular applications that can be used with a sufficient quality, and an explanation of how such applications are influenced by the limitations of the provided IAS. This part should include reference to the second part where the information required by Article 4(1) of the Regulation is provided in more detail. • The second part would consist of more detailed technical parameters and their values and other relevant information defined in Article 4(1) of the Regulation and in these Guidelines</p>	<p>provided should include, for example, an explanation of speeds, examples of popular applications that can be used with a sufficient quality, and an explanation of how such applications are influenced by the limitations of the provided IAS. This part should include reference to the second part where the information required by Article 4(1) of the Regulation is provided in more detail. • The second part would consist of more detailed technical parameters and their values and other relevant information defined in Article 4(1) of the Regulation and in these Guidelines</p>	
<p>129. Contract terms that would inappropriately exclude or limit the exercise of the legal rights of the end-user vis-à-vis the ISP in the event of total or partial non-performance or inadequate performance by the ISP of any of the contractual obligations might be deemed unfair under national legislation, including the implementation of Directive 93/13/EEC on unfair terms in consumer contracts</p>	<p>129. Contract terms that would inappropriately exclude or limit the exercise of the legal rights of the end-user vis-à-vis the ISP in the event of total or partial non-performance or inadequate performance by the ISP of any of the contractual obligations might be deemed unfair under national legislation, including the implementation of Directive 93/13/EEC on unfair terms in consumer contracts. <u>ISPs are explicitly allowed to specify conditions under which the performance is contractually agreed. Factors lying outside ISPs control and outside IAS contract cannot constitute a non-performance</u></p>	<p>ISPs should not be responsible for factors outside their control e.g weather, third party equipment, etc.</p>
<p>130. Articles 4(1), 4(2) and 4(3) apply to all contracts regardless of the date the contract is concluded or renewed. Article 4(4) applies only to contracts</p>	<p>130. Articles 4(1), 4(2) and 4(3) apply to all contracts regardless of the date the contract is concluded or renewed <u>entered into on or after 30 April 2016.</u></p>	

- use clear symbols to represent 'yes,' 'no' and 'not applicable' in the key information tables
<http://media.ofcom.org.uk/news/2013/consumer-guide-on-internet-traffic-management/>



<p>concluded or renewed from 29 November 2015. Article 4(1) letter (a) (a) information on how traffic management measures applied by that provider could impact on the quality of the internet access services, on the privacy of end-users and on the protection of their personal data</p>	<p>Article 4(4) applies only to contracts concluded or renewed from 29 November 2015. Article 4(1) letter (a) (a) information on how traffic management measures applied by that provider could impact on the quality of the internet access services, on the privacy of end-users and on the protection of their personal data</p>	
<p>134. Besides speed, the most important QoS parameters are delay, delay variation (jitter) and packet loss. These other QoS parameters should be described if they might, in practice, have an impact on the IAS and use of applications. NRAs should ensure that ISPs provide information which is effects-based. Users should be able to understand the implications of these parameters to the usage of applications and whether certain applications (e.g. interactive speech/video or 4K video streaming) cannot in fact be used due to the long delay or slow speed of the IAS. Categories of applications or popular examples of these affected applications could be provided.</p>	<p>134. Besides speed, the most important QoS parameters are delay, delay variation (jitter) and packet loss. These other QoS parameters should be described if they might, in practice, have an impact on the IAS and use of applications. NRAs should ensure that ISPs provide information which is effects-based. Users should be able to understand the implications of these parameters to the usage of applications and whether certain applications (e.g. interactive speech/video or 4K video streaming) cannot in fact be used due to the long delay or slow speed of the IAS. Categories of applications or popular examples of these affected applications could be provided. <u>It should also be made clear to the customer what parts of the service the ISP is not responsible for (users' equipment, weather and environmental conditions, parts of the network outside the ISPs control, delivery of traffic beyond the ISP network) all of which affects the end to end experience.</u></p>	<p>While the Art. 4(1) letter (b) of the regulation requires clear and comprehensible explanations on how IAS are impacted, BEREC recommends the provisioning of detailed explanations and information more suited for experts. It is unlikely that average customers understand the degree of details that BEREC considers as useful.</p>
	<p>New clause - <u>All speed parameters in the contract are deemed to be product-specific and not customer-individual</u></p>	<p>Determining reliable customer-individual values before activation is currently not feasible and would be a major implementation issue in (esp. DSL) fixed.</p>



<p>137. In order to empower end-users, speed values required by the Article 4(1) letter (d) should be specified in the contract and published in such a manner that they can be verified and used to determine any discrepancy between the actual performance and what has been agreed in contract. Upload and download speeds should be provided as single numerical values in bits/second (e.g. kbit/s or Mbit/s). Speeds should be specified on the basis of the IP packet payload, and not based on a lower layer protocol</p>	<p>137. In order to empower end-users, speed values required by the Article 4(1) letter (d) should be specified-referred to in the contract and published in such a manner that they can be verified and used to determine any discrepancy between the actual performance and what has been agreed in contract. Upload and download speeds should be provided as single numerical values in bits/second (e.g. kbit/s or Mbit/s). Speeds should be specified on the basis of the IP packet payload, and not based on a lower layer protocol</p>	<p>These requirements are not possible to implement in practice. ISPs cannot contractually offer a single speed parameter but have to offer speed ranges, as these will depend on congestion, user equipment etc.</p>
<p>141. NRAs could set requirements on defining minimum speed under Article 5(1), for example that the minimum speed could be in reasonable proportion to the maximum speed</p>	<p>141. NRAs could set requirements on defining minimum speed under Article 5(1), for example that the minimum speed could be in reasonable proportion to the maximum speed</p>	<p>A possibly strict limitation of maximum speed by NRAs such as recommended in BEREC's proportionality criteria in this Paragraph is that providers will only indicate a lower maximum speed in the contract. This may apply where the available speed for customers is much higher.</p>
<p>142. The maximum speed should be actually achievable by the end-user at least some of the time (e.g. at least once a day). An ISP is not required to technically limit the speed to the maximum speed defined in the contract</p>	<p>142. The maximum speed should be actually achievable by the end-user at least some of the time (e.g. at least once a day). An ISP is not required to technically limit the speed to the maximum speed defined in the contract</p>	<p>This recommendation does not reflect technological requirements and requirements for commercial offerings in mass markets. As a consequence of BEREC's interpretation of maximum speed, end-users would be less accurately informed and ISPs would be forced to lower the offered maximum speed even if that speed is available in most cases. In mass markets, an offered tariff is usually not customised but may encompass various different speed ranges. Regarding maximum agreed speed ranges, usually, customers will regularly achieve the maximum speed. However, in some cases the maximum</p>



		<p>agreed speed is not available due to technical constraints or in cases of preliminary agreements (where network roll-outs are planned). Consequently, there are some customers who will only have available a maximum speed in the lower areas of the speed range.</p>
<p>143. NRAs could set requirements on defining maximum speeds under Article 5(1), for example that they are achievable a specified number of times during a specified period.</p>	<p>143. NRAs could set requirements on defining maximum speeds under Article 5(1), for example that they are achievable a specified number of times during a specified period.</p>	
<p>144. The normally available speed is the speed that an end-user could expect to receive most of the time when accessing the service. BEREC considers that the normally available speed has two dimensions: the numerical value of the speed and the availability (as a percentage) of the speed during a specified period, such as peak hours or the whole day.</p>	<p>144. The normally available speed is the speed that an end-user could expect to receive most of the time when accessing the service. BEREC considers that the normally available speed has two dimensions: the numerical value of the speed and the availability (as a percentage) of the speed during a specified period, such as peak hours or the whole day.</p>	<p>BEREC recommends a very specific definition of “normally available speed” as included in Art. 4(1) letter (d) which is not justified based on the Regulation and does not provide valuable information for end-users. BEREC’s proposed definition focuses mainly on time windows when networks tend to have bottlenecks; normally available speed shall reflect the performance measured 90% of time over peak hours. Such “normally” available speed will not reflect the experience of users during most of the day. Accordingly, BEREC’s requirement that the maximum speed shall be proportionate to the normally available speed would unreasonably limit the indication of maximum speed.</p> <p>Such a prescriptive approach ignores both what is technically possible (which will vary across operators), but also overrides the possibility of more relevant/pertinent</p>



		means of substantiating speeds being utilised. This should be left to NRAs to assess based on technical capabilities of operators in their
<p>145. The normally available speed should be available during the specified daily period. NRAs could set requirements on defining normally available speeds under Article 5(1). Examples include:</p> <ul style="list-style-type: none"> • specifying that normally available speeds should be available at least during off-peak hours and 90% of time over peak hours, or 95% over the whole day; • requiring that the normally available speed should be in reasonable proportion to the maximum speed. 	<p>145. The normally available speed should be available during the specified daily period. NRAs could set requirements on defining normally available speeds under Article 5(1). Examples include:</p> <ul style="list-style-type: none"> • specifying that normally available speeds should be available at least during off-peak hours and 90% of time over peak hours, or 95% over the whole day; • requiring that the normally available speed should be in reasonable proportion to the maximum speed. 	
<p>147. Advertised speed is the speed an ISP uses in its commercial communications, including advertising and marketing, in connection with the promotion of IAS offers. In the event that speeds are included in an ISP's marketing of an offer (see also Paragraph 139), the advertised speed should be specified in the published information and in the contract for each IAS offer.</p>	<p>147. Advertised speed is the speed an ISP uses in its commercial communications, including advertising and marketing, in connection with the promotion of IAS offers. In the event that speeds are included in an ISP's marketing of an offer (see also 139), the advertised speed should be specified in the published information and in the contract for each IAS offer.</p>	<p>BEREC's recommendations on Art. 4(1) letter (d) on advertisement should not go beyond the obligations laid down in the Regulation. Art. 4(1) only imposes obligations on ISPs to ensure that contracts include certain mandatory information. Art. 4(1) does not impose any obligations in terms of public advertisement practices and does not oblige ISPs to include any references to advertisement in the contract. An advertised tariff brand may apply to a variety of different contracts and does not necessary link to the individually agreed speed range</p>
<p>148. NRAs could set requirements on defining advertised speeds under Article 5(1), for example that the</p>	<p>148. NRAs could set requirements on defining advertised speeds under Article 5(1), for example that the</p>	



<p>advertised speed should not exceed the maximum speed defined in the contract</p>	<p>advertised speed should not exceed the maximum speed defined in the contract.</p>	
<p>150. The estimated maximum speed for a mobile IAS should be specified so that the end-user can understand the realistically achievable maximum speed for their subscription in different locations in realistic usage conditions. The estimated maximum speed could be specified separately for different network technologies that affect the maximum speed available for an end-user. End-users should be able to understand that they may not be able to reach the maximum speed if their mobile terminal does not support the speed.</p>	<p>150. The estimated maximum speed for a mobile IAS should be specified so that the end-user can understand the realistically achievable maximum speed for their subscription in different locations in realistic usage conditions. The estimated maximum speed could be specified separately for different network technologies that affect the maximum speed available for an end-user. End-users should be able to understand that they may not be able to reach the maximum speed if their mobile terminal does not support the speed. <u>Furthermore, as the estimated maximum speed may be impacted by factors beyond the IAS provider's reasonable control, IAS providers should be permitted to assess the end-users device prior to providing compensation or the right to early termination, in order to ensure against the end-user deliberately manipulating the service provided to their financial benefit.</u></p>	
<p>156. NRAs should ensure that ISPs adhere to certain good practices regarding procedures for addressing complaints, such as: informing end-users in the contract as well as on their website, in a clear manner, about the procedures put in place, including the usual or maximum time it takes to handle a complaint; providing a description of how the complaint will be handled,</p>	<p>156. NRAs should ensure that ISPs adhere to certain good practices regarding procedures for addressing complaints, such as: informing end-users in the contract as well as on their website, in a clear manner, about the procedures put in place, including the usual or maximum time it takes to handle a complaint; providing a description of how the complaint will be handled,</p>	<p>This information is not available</p>



<p>including what steps the ISP will take to investigate the complaint and how the end-user will be notified of the progress or resolution of the complaint;</p> <ul style="list-style-type: none">• enabling end-users to easily file a complaint using different means, at least online (e.g. a web-form or email) and at the point of sale, but possibly also using other means such as post or telephone;• providing a single point of contact for all complaints related to the provisions set out in Article 3 and Article 4(1), regardless of the topic of the complaint;• enabling an end-user to be able to enquire about the status of their complaint in the same manner in which the complaint was raised; BoR (16) 94 35	<p>including what steps the ISP will take to investigate the complaint and how the end-user will be notified of the progress or resolution of the complaint;</p> <ul style="list-style-type: none">• enabling end-users to easily file a complaint using different means, at least online (e.g. a web-form or email) and at the point of sale, but possibly also using other means such as post or telephone;• providing a single point of contact for all complaints related to the provisions set out in Article 3 and Article 4(1), regardless of the topic of the complaint;• enabling an end-user to be able to enquire about the status of their complaint in the same manner in which the complaint was raised; BoR (16) 94 35	
<p>158. The relevant facts proving a significant discrepancy may be established by any monitoring mechanism certified by the NRA, whether operated by the NRA or by a third party. The Regulation does not require Member States or an NRA to establish or certify a monitoring mechanism. The Regulation does not define how the certification must be done. If the NRA provides a monitoring mechanism implemented for this purpose it should be considered as a certified monitoring mechanism according to Article 4(4).</p>	<p>158. The relevant facts proving a significant discrepancy may be established by any monitoring mechanism certified by the NRA, whether operated by the NRA or by a third party. The Regulation does not require Member States or an NRA <u>to establish a monitoring mechanism. NRAs must offer a certification. The definition of certification criteria and processes must be certified by a third independent party and must be consulted with the stakeholders. As long as certification criteria and processes are not established ISPs can use own monitoring mechanisms to check performances without certification. The Regulation does not define how the certification must be done. If the NRA provides a monitoring mechanism implemented this monitoring mechanism must meet the certification criteria and</u></p>	<p>Under Article 4(4) there is no exemption from certification for a monitoring system established by an NRA</p>



	<p>be certified by a third independent party to establish or certify a monitoring mechanism. The Regulation does not define how the certification must be done. If the NRA provides a monitoring mechanism implemented for this purpose it should be considered as a certified monitoring mechanism according to Article 4(4).</p>	
<p>163. Following this existing guidance, the speed is calculated by the amount of data divided by the time period. These speed measurements should be done in both download and upload directions. Furthermore, speed should be calculated based on IP packet payload, e.g. using TCP as transport layer protocol. Measurements should be performed beyond the ISP leg. The details of the measurement methodology should be made transparent.</p>	<p>163. Following this existing guidance, the speed is calculated by the amount of data divided by the time period. These speed measurements should be done in both download and upload directions. Furthermore, speed should be calculated based on IP packet payload, e.g. using TCP as transport layer protocol. Measurements should be performed <u>beyond within</u> the ISP leg <u>and not beyond</u>. The details of the measurement methodology should be made transparent.</p>	
<p>167. NRAs have the power to collect traffic management information, for instance by:</p> <ul style="list-style-type: none"> • evaluating traffic management practices applied by ISPs, including exceptions (allowed by Article 3(3) third sub Paragraph); • requesting more comprehensive information from ISPs about implemented traffic management practices, including: a description of, and technical details about, affected networks, applications or services; o how they are affected and any other specific differentiation with regards to the application of the practice (such as if the practice is applied only for specific time of day, or in a specific area); o in the case of exceptional traffic management practices going beyond those set out in the 	<p>167. NRAs have the power to collect traffic management information, for instance by:</p> <ul style="list-style-type: none"> • evaluating traffic management practices applied by ISPs, including exceptions (allowed by Article 3(3) third sub Paragraph); • requesting more comprehensive information from ISPs about implemented traffic management practices, including: BoR (16) 94 38 o a description of, and technical details about, affected networks, applications or services; o how they are affected and any other specific differentiation with regards to the application of the practice (such as if the practice is applied only for specific time of day, or in a specific area); o in the case of exceptional traffic management practices going 	<p>Places unreasonable burden on operators and goes far beyond the regulation</p>



second sub Paragraph (Article 3(3)), a detailed justification of why the practice is applied and the time period for which it is applied.	beyond those set out in the second (Article 3(3)), a detailed justification of why the practice is applied and the time period for which it is applied.	
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