
Monitoring compliance with the EU Net Neutrality regulation

A report to the European Commission

About this document

This document is a report to the European Commission on our approach to monitoring and ensuring compliance with EU Regulation 2015/2120 on open internet access covering the period from May 2017 to April 2018.

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1. Introduction

- 1.1 The EU Regulation on open internet access¹ (the Regulation) imposes a range of obligations on internet service providers (ISPs) regarding their provision of internet access services (IAS). The aim of the Regulation is to “safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users’ rights” and “guarantee the continued functioning of the internet ecosystem as an engine of innovation”.² To secure these goals, the Regulation imposes measures dealing with the way ISPs manage data traffic on their networks. It also places obligations on ISPs about the terms and conditions of, as well as information contained in, customer contracts for the provision of IAS.
- 1.2 The Body of European Regulators for Electronic Communications (BEREC) has published Guidelines on the Implementation by National Regulators of European Net Neutrality Rules.³ The Guidelines state that the National Regulatory Authorities (NRAs) of the EU Member States “should take utmost account” of the Guidelines, which “should contribute to consistent application of the Regulation, thereby contributing to regulatory certainty to stakeholders.”⁴
- 1.3 Ofcom is the NRA responsible for enforcing the Regulation in the United Kingdom. UK national regulations designate Ofcom as such,⁵ and set out Ofcom’s powers. These include the power to impose a penalty of up to 10% of the turnover of the relevant business for breaches of the Regulation. In addition, Ofcom may require operators who have breached the Regulation to take steps to comply with their obligations and to remedy the consequences of their breach.
- 1.4 The Regulation requires NRAs such as Ofcom to monitor and ensure compliance with the Regulation, and to promote the availability of non-discriminatory IAS at levels of quality that reflect advances in technology. The Regulation also requires NRAs to publish an annual report regarding their monitoring and findings, and provide those reports to the European Commission and to BEREC.

Overview of report

- 1.5 This is Ofcom’s second annual report and covers Ofcom’s activities from May 2017 through to April 2018. It is divided into sections addressing:
- monitoring the quality of IAS;
 - safeguarding open internet access and traffic management;

¹ [Regulation \(EU\) 2015/2120 laying down measures concerning open internet access](#)

² EU Regulation 2015/2120, Recital (1).

³ [BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules, 30 August 2016](#) (‘BEREC Guidelines’)

⁴ [BEREC Guidelines, paragraph 1](#)

⁵ [The Open Internet Access \(EU Regulation\) Regulations 2016 \(SI 2016 No. 607\)](#),

- transparency measures; and
- complaints and remedies.

1.6 This report shows that:

- regarding quality of IAS, both fixed and mobile IAS have improved compared to 2016;
- regarding safeguarding open internet access and traffic management, we have completed an initial review of “zero-rated” offers by Three and Vodafone, and found that they, as structured at the time of our review, do not present material competition concerns warranting intervention. We did, however, identify traffic management issues of concern. We have opened an enforcement programme to learn more about these and other traffic management practices, and sent information requests to the UK’s largest ISPs. As a result of the information received, we have opened two investigations. One of these is concerned with Three’s practice of prohibiting tethering on some tariffs and slowing down certain kinds of traffic for customers while they are roaming. The other is concerned with Vodafone’s practice of restricting the resolution of video traffic in its ‘Passes’ offer;
- regarding transparency, we secured key changes to consumer contracts of the UK’s largest ISPs around traffic management and how traffic management may impact on privacy and protection of personal data and remedies available to consumers if they experience performance issues with their internet service.
- We have also completed revisions to our Codes of Practice for fixed broadband speeds. Following an implementation period, the revised codes, which are designed to give consumers better and more information on their broadband speed at point of sale, will become effective from March 2019.
- regarding complaints and remedies, we completed consultations to improve quality of service.⁶ One of the main changes was to strengthen the rules on complaints handling to ensure that ISPs deal with complaints from consumers promptly and effectively. We also accepted an industry-led scheme put forward by the four largest fixed broadband providers in the UK to automatically compensate residential broadband consumers who are affected by service quality issues such as delayed repair, loss of service or missed appointments. The voluntary scheme will come into force in early 2019.

1.7 As indicated, our monitoring work has highlighted some specific regulatory issues which are under investigation. We will take steps to address and resolve the issues we have identified; we will continue to monitor ISPs practices to ensure compliance with the Regulation; and we will make additional interventions where necessary to achieve that goal.

⁶ Ofcom Statement: [Review of general Conditions of Entitlement](#)

2. Monitoring the quality of IAS

Article 5(1) of the Regulation

National regulatory authorities...shall promote the continued availability of non-discriminatory internet access services at levels of quality that reflect advances in technology.

- 2.1 Article 5.1 requires Ofcom to promote the availability of non-discriminatory IAS at levels of quality that reflect technological advances.
- 2.2 During the last year, we continued a multi-pronged approach to measuring the availability of high-quality IAS delivered over fixed and mobile networks in the UK. Our activities have included monitoring consumer complaints, conducting market surveys, requesting information from ISPs, and technical network monitoring. We measure various indicators, including broadband speeds and web browsing performance.
- 2.3 Overall, we have found that consumers of both fixed and mobile broadband IAS achieved higher quality IAS in 2016 than in 2017, and the vast majority of consumers are satisfied with their IAS overall.

Fixed broadband network IAS quality

- 2.4 We measure the availability of high-quality IAS on fixed broadband networks through a programme of regular monitoring and reporting. We use two complementary methods to measure the quality of IAS on fixed networks.
- 2.5 First, we analyse information provided by ISPs regarding the sync speed of each active line. We collect sync speed data at the address-level from the four largest networks, as well as from smaller network providers. This gives a measure of the maximum possible connection speed achievable between the ISP's access network and the consumer premises. We published the findings of this analysis in our Connected Nations report.⁷
- 2.6 Second, we analyse data collected by our research partner SamKnows Limited from a panel of volunteers. The panel is selected to be representative in terms of geographic location, broadband connection technology, ISP and broadband package. Volunteers connect a hardware measurement unit to their broadband router. This method measures actual speeds, Netflix streaming performance, and average daily disconnections. It also measures other indicators affecting the performance of IAS per ISP package, including web browsing speed, latency, packet loss, Domain Name Server (DNS) resolution, DNS failure, and jitter. The findings of this analysis are published in our Home Broadband Performance report.⁸

⁷ Ofcom [Connected Nations](#) 15 December 2017

⁸ Ofcom [UK Home Broadband Performance](#) 9 May 2018

Key findings

- 2.7 The data we gathered about sync speeds indicates that the trend of increased average download speeds continued in 2017, up from 37Mbit/s in 2016 to just over 44Mbit/s this past year.⁹
- 2.8 The findings in relation to the average actual speeds consumers experienced was also positive, as they showed an increase by 10.0Mbit/s (28%) to 46.2Mbit/s in the year to November 2017. Over the same period, average actual upload speeds increased from 4.3Mbit/s to 6.2Mbit/s.¹⁰
- 2.9 While showing some improvement, there is still variance in the actual download speeds experienced throughout the day.¹¹ In 2016 the reported average download speed recorded during peak-time (8pm-10pm) was 33.6Mbit/s, 86% of the average maximum speed. In November 2017 that had increased to 44.9Mbit/s, or 92% of the average maximum speed. The main driver for both increases was the growing take-up of superfast fibre and cable broadband products, and the proportion of lines receiving an average peak-time speed of 30Mbit/s or more increased from 41% to 54% in the year to November 2017.¹²
- 2.10 In March 2018, the UK Government decided to introduce a broadband Universal Service Order (USO) to ensure people in the UK have the right to request a broadband connection with a download speed of at least 10Mbit/s and an upload speed of at least 1Mbit/s. Ofcom has been given responsibility for implementing the USO and we plan to publish our first document on implementation of the USO this summer.¹³

Mobile broadband networks IAS quality

- 2.11 We measure the quality of mobile IAS through collecting data from a panel of consumers who install an Ofcom-branded research app on their handset. The app, provided by our technical partner P3, passively measures consumer experience using mobile services when panelists use their phone. Additional satisfaction measurements are captured via pop-up style surveys, which allow us to correlate consumer experience and perception. Our second research report ran from September to December 2017. Over 5,300 respondents took part for seven days or longer by the end of the fieldwork. We recently published our results of this research in our Consumer Mobile Experience.¹⁴
- 2.12 As part of our work to promote quality mobile IAS, we have a number of other workstreams in progress. We are refining how we measure mobile coverage at service level. Ofcom monitors mobile coverage in the UK on a monthly basis. We are also part of a UK-wide industry steering group, which is addressing common practices for mobile

⁹ Ofcom [Connected Nations 15 December 2017](#), p 11

¹⁰ Ofcom [UK Home Broadband Performance 9 May 2018](#) p 2

¹¹ Ofcom [UK Home Broadband Performance 9 May 2018](#) p 14

¹² Ofcom [UK Home Broadband Performance 9 May 2018](#) p 2. Although superfast broadband is available to 93% of UK premises, around two in five UK broadband connections are delivered using ADSL (i.e. over the copper telephone wire between the telephone exchange and the end-user)

¹³ Ofcom [Connected Nations Update Spring 2018](#), p 2

¹⁴ Ofcom [The Consumer Mobile Experience](#) 9 May 2018

coverage estimation and information presentation to consumers. This is expected to increase the level of transparency and comparability of mobile services in the UK. In addition, we are continuing our research on technical metrics, measurement methods and handsets, which are supplemented with field measurements in order to better understand mobile quality of service (QoS) in view of the Regulation and the corresponding BEREC Guidelines.

- 2.13 We also are participants as main drafters into two relevant BEREC Expert Working Groups, namely Net Neutrality and Mobile Coverage EWGs. These two BEREC groups are working on bringing about greater levels of harmonisation amongst the regulators of Europe on mobile coverage and QoS in the context of net neutrality.

Key findings

- 2.14 Information from the volunteers using the Ofcom-branded app showed that a 4G network was available for more than 80% of the time. There were variations between urban and rural locations, as well as between mobile networks, with customers of one ISP on the low end connecting to a 4G network two thirds of the time, and customers of another ISP on the high end connecting to such a network 92% of the time. Data download speeds varied significantly by application, and there was some indication of slowing speeds in peak periods.
- 2.15 In our Connected Nations report, Ofcom established a key metric for coverage that reflects good consumer QoS for data services: nearly all connections should deliver a speed of at least 2Mbit/s. (Fast enough to browse the internet and watch glitch-free mobile video). In the case of 4G, the required power that delivers this QoS was derived using extensive field measurements. Our industry group involve agreeing a common means of measuring coverage, building on and refining the principles already established. We expect this to require additional testing. The working group will also consider how to present coverage information to consumers to make it easy to understand. While the speed of a mobile data connection is important, other factors can affect a consumer's QoS, such as contention, which happens when many users try to use the network at the same time. We will continue to work on measuring the impact of these factors.

Consumer satisfaction surveys and complaints

- 2.16 We collect information on consumer satisfaction through surveys. This includes satisfaction with fixed and mobile broadband services generally and with the speed of fixed services specifically. Compared to 2016, for fixed services, we found that the proportion of respondents claiming to be 'very' or 'fairly' satisfied with their overall fixed broadband services decreased slightly in 2017 by 3%, to 84%. The proportion of fixed broadband users who said they were 'very' or 'fairly' satisfied with the speed of their fixed broadband

service remained unchanged at 82%. These findings are published annually in the Communications Market Report.¹⁵

- 2.17 For mobile phone users, in 2016 we reported that 91% of respondents said that they were 'very' or 'fairly' satisfied with their mobile service. Our data for 2017 indicates that satisfaction levels has increased slightly, with 92% of mobile phone users saying that they were either 'very' or 'fairly' satisfied with their mobile service.¹⁶
- 2.18 We also monitor consumer complaints to our Consumer Contact Team to evaluate consumer satisfaction. This helps us to identify relevant complaints about the quality of broadband services, including the speeds that customers are getting and the information provided to them.
- 2.19 To facilitate consumer awareness of the Regulation and the rights it guarantees, in 2017 Ofcom created a short video to explain the core principles of net neutrality and posted this on the Ofcom website.¹⁷ This is in addition to other consumer-facing materials on our website. We continue to promote this information through social media and other consumer advice bodies.

¹⁵ Ofcom [Communications Market Report](#) 3 August 2017, p 148

¹⁶ Ofcom: [Communications Market Report](#) 3 August 2017, pp, 142 - 162

¹⁷ Ofcom: <https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/advice/net-neutrality>

3. Safeguarding open internet access

- 3.1 Article 3 sets out consumers' core rights, and ISPs' core obligations (other than those relating to transparency, which are set out in Article 4).
- 3.2 To fulfil our oversight responsibilities in this area in 2017, we:
- monitored consumer complaints;
 - reviewed publicly available information from ISPs, such as:
 - the terms and conditions of their offers, including most especially those relating to any "zero-rated" offers that came on the market;
 - the largest ISPs' traffic management measures as published at their website;
 - sent out information requests to, and reviewed responses from, ISPs, as part of:
 - gathering information for our annual Connected Nations report; and
 - an enforcement programme we opened on ISP traffic management practices.
- 3.3 As discussed more below, our findings are that:
- at least one mobile ISP, Three, has restricted tethering on certain tariffs. This appears to conflict with the requirement of the Regulation that end-users should have the right to use the terminal equipment of their choice, and so we have opened a formal investigation;
 - the new zero-rated offers of Three and Vodafone that came on the market in 2017, as structured at the time of our review do not appear to warrant formal investigation in respect of competition-related concerns; and
 - two "zero-rated" offers by mobile ISP Vodafone, however, have restricted the resolution of video. This raises concerns about the propriety of Vodafone's traffic management under the Regulation, and so we opened a formal investigation. With respect to traffic management, we also identified that mobile ISP Three has slowed down certain kinds of traffic for certain customers. This too raises concerns about compliance with the Regulation, and so our investigation of the company also addresses this issue.

Terminal equipment

Article 3(1) of the Regulation

End-users shall have the right to access and distribute information and content, use and provide applications and services, and use terminal equipment of their choice, irrespective of the end-user's or provider's location or the location, origin or destination of the information, content, application or service, via their internet access service.

- 3.4 Article 3(1) of the Regulation, among other things, grants end-users the right to use the terminal equipment of their choice.
- 3.5 As we reported last year, we identified a compliance concern with respect to this right, and opened an initial enquiry into the matter. This concerned Three's practice of not permitting customers to tether other devices to their mobile phone's internet connection on certain tariffs. While this enquiry was pending, in December 2017 we opened a wider enforcement programme into ISP traffic management practices (see more below), sent information requests to the UK's nine largest ISPs, including Three, and awaited receipt of responses before taking next steps on the enquiry. In March of this year, we opened a formal investigation into Three, which considers its device restrictions, as well as some traffic management practices (see more below). We expect to make a decision on the matter in the next few months, and will publish details on our website.
- 3.6 We are assessing the practices of other ISPs from whom we have gathered information and will take action to ensure compliance if necessary.

Zero-rating practices

Article 3(2) of the Regulation

Agreements between providers of internet access services and end-users 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, shall not limit the exercise of the rights of end-users laid down in paragraph 1.

- 3.7 Article 3(2) of the Regulation allows agreements between ISPs and their end-users on terms such as price, data volumes, and speed, so long as they do not limit end-user rights as set out in Article 3(1).
- 3.8 "Zero-rating" offers are increasingly popular types of agreements between ISPs and end-users that relate to data and price. Under these offers, access to specific services does not count towards any general data cap that may otherwise be an element of a particular tariff. An example is where an ISP applies no charge for consumption of data traffic associated with a specific application or category of applications.
- 3.9 The Regulation does not prohibit zero-rating outright. The BEREC Guidelines state, however, that such offers should be assessed closely by NRAs to ensure that they do not

undermine the goals of the Regulation. The Guidelines recommend that such assessments take into account:

- the aims of the Regulation;
- the market positions of the ISP and Content and Application Providers (“CAP”) involved;
- the effects on consumer and business customer end-user rights;
- the effects on CAP end-user rights; and
- the scale of the practice and presence of alternatives.¹⁸

- 3.10 According to the BEREC Guidelines, there are different types of zero-rating practices that could have different effects on end-users and the open internet, and hence the end-user rights protected under the Regulation.¹⁹
- 3.11 The BEREC Guidelines note that there are certain practices of zero-rating that will always amount to a limitation or restriction of access and therefore a breach of the Regulation. For example, a zero-rated 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) traffic management requirements.²⁰
- 3.12 However, even where the zero-rating does not technically limit or restrict access, because it involves price differentiation applied to different categories of traffic, the zero-rating could influence end-users’ exercise of their rights defined in Article 3(1).²¹ This influence could amount to a breach of Articles 3(1) and 3(2) of the Regulation.
- 3.13 The BEREC Guidelines set out that when assessing agreements or commercial practices like zero rating in relation to Article 3(2), the assessment should take account the aim of the Regulation to *“safeguard equal and non-discriminatory treatment of traffic”* (Article 1) and to *“guarantee the continued functioning of the internet ecosystem as an engine of innovation”* (Recital 1) as well as Recital 7, which directs intervention against agreements or commercial practices which, *“by reason of their scale, lead to situations where end-users’ choice is materially reduced in practice”*, or which would result in *“the undermining of the essence of the end-users’ rights”*.
- 3.14 Given the above, where Ofcom becomes aware of zero-rating practices, we conduct an initial review²² of the offer, and consider the following questions:

¹⁸ BEREC Guidelines, paragraph 46

¹⁹ BEREC Guidelines, paragraph 40.

²⁰ BEREC Guidelines, paragraph 41.

²¹ BEREC Guidelines, paragraph 39 and 40.

²² Ofcom’s completes an initial review into these practices in line with our enforcement guidelines: See: https://www.ofcom.org.uk/_data/assets/pdf_file/0015/102516/Enforcement-guidelines-for-regulatory-investigations.pdf.

1. Does the zero-rated offer appear to technically limit and/or exclude the way in which end-users access certain content/applications?
2. Does the zero-rated offer potentially create a situation where end-users' choice may be materially reduced (or otherwise adversely affected) in practice?

3.15 If the answer to either of these questions is **Yes**, we then consider whether it would be appropriate to open a formal investigation into a potential breach of the Regulation, bearing in mind our enforcement guidelines.²³ It is worth noting that in order to ensure that the zero-rated element of the traffic is being treated fairly when the customer is roaming in the EU, we would also assess compliance with the EU Roaming Regulations.²⁴

Initial reviews of zero-rated offers

3.16 Over the past year, Ofcom completed an initial review of several new zero-rating products offered in the UK market.²⁵ These are:

- **Three/GoBinge** - in July 2017, Three launched a service called GoBinge, which zero-rates certain music and video streaming applications.²⁶
- **Vodafone/VOXI** - in September 2017, Vodafone launched a new mobile offering aimed at people aged 25 and under, which initially zero-rated only selected social media and messaging applications.²⁷ Later, Vodafone added optional selected video and music applications to the VOXI zero-rated offer.²⁸
- **Vodafone/Passes** - in November 2017, Vodafone launched Vodafone Passes, a series of five 'add-ons' which zero-rate data for selected applications in four different categories: Chat, Social, Music and Video. The fifth add-on is the Combo Pass which includes all four categories.²⁹

3.17 As part of our monitoring obligations, Ofcom reviewed each zero-rated offer considering the two questions set out at paragraph 3.14 above. We set out our main findings from these initial reviews below.

²³ See: https://www.ofcom.org.uk/_data/assets/pdf_file/0015/102516/Enforcement-guidelines-for-regulatory-investigations.pdf.

²⁴ On 15 June 2017, the roaming regulations came into effect and introduced the concept of Roam Like At Home. The changes were introduced by Commission Implementing Regulation (EU) 2016/2286 of 15 December 2016, and EU Roaming Regulation (EU) No 531/2012, as amended by Regulation (EU) 2015/2120 (collectively, the RLAH rules). See: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1524763156588&uri=CELEX:02012R0531-20170615> and <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016R2286>

²⁵ EE has also introduced a zero-rated product in the UK. See <https://ee.co.uk/why-ee/apple-music/>. This was still under review at the time of during the time period covered in this report.

²⁶ See: <http://www.three.co.uk/go-binge>

²⁷ See: <https://mediacentre.vodafone.co.uk/pressrelease/voxi-launches/>

²⁸ See: <https://www.voxi.co.uk/>

²⁹ See: <https://mediacentre.vodafone.co.uk/pressrelease/vodafone-passes-payg1/>

Does the zero-rated offer appear to technically limit and/or exclude the way in which end-users access certain content or applications?

- 3.18 To answer this question, for each of the offers Ofcom considered whether the offer included:
- Traffic management practices – where the ISP technically blocks, slows down, restricts, interferes with, degrades or discriminates traffic to certain content/applications.
 - Unfair treatment – where all applications are blocked (or slowed down) once the data cap is reached *except* for the zero-rated applications.
 - A sub-internet service type offer – where access to the internet is blocked to certain specific content or applications or restricted to a limited set of applications or endpoints by the ISP.
- 3.19 Based on our review, Three/GoBinge did not include any of the above practices. However, Vodafone/Passes was found to employ a traffic management practice that restricts resolution of the video available. At the time we reviewed VOXI, it did not include any of the above practices, however Vodafone later started offering an optional Video Pass to VOXI customers, which employed the same practices as those in the Vodafone Passes Video Pass.
- 3.20 Based on the concerns identified with Vodafone/Passes (and as described more below), Ofcom opened an investigation on 6 March 2018 in relation to the traffic management practices described.³⁰ This investigation also includes the same traffic management practices at issue in Vodafone/VOXI offer.

Does the zero-rated offer potentially create a situation where end-users' choice may be materially reduced (or otherwise adversely affected) in practice?

- 3.21 To answer this question, for each of the offers Ofcom took account of the BEREC Guidelines³¹ and considered the following:
- **What are the relative market positions of the ISPs and CAPs³² involved?** A limitation of end-user's rights is more likely to occur where an ISP or CAP has a strong market position.
 - **To what extent may the end-user be incentivised to use specific applications or services?** This includes considering whether there is a potential to affect the range and diversity of content and applications from which the end-user can choose in practice or

³⁰ See: https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/open-cases/cw_01210. This investigation is also considering the transparency of exceptions to zero-rating within the Vodafone Passes product, i.e., functions within the zero-rated applications that are not zero-rated. We note that Ofcom also opened an investigation into Three at the same time, however this was not in relation to its GoBinge offering. See: https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/open-cases/cw_01218

³¹ See the Guidelines, paragraphs 42 to 48. The Guidelines focuses the assessment on zero-rated offers, however we consider that the criteria apply to other similar offers (e.g. where the ISP offers price differentiations to specific applications or offering different data allowances for certain applications).

³² CAPs make content (e.g. web pages, blogs, video) and/or applications (e.g. search engines, VoIP applications) and/or services available on the Internet. CAPs may also make content, services and applications available via specialised services. See BEREC definitions, the Guidance, paragraph 2.

effect by considering the entirety of the offer and how various aspects of it may influence use of certain services/applications.

- **What is the potential scale of the practice and presence of alternatives?** A practice is more likely to limit the exercise of end-user choice in a situation where, for example, many end-users are concerned and/or there are few alternative offers and/or competing ISPs for the end-users to choose from.
- **What is the likely effect of the offer on other services/applications?** We consider the effect of the practice or offer on the market for that service (e.g. will competitors likely be discouraged from entering the market or forced to leave the market because of the offer?).
- **To what extent does the service seek to circumvent the goals of the Regulation?**

3.22 Bearing in mind the above, Ofcom's reviews found that, at the time of the reviews, the Three and Vodafone/Passes/VOXI zero-rated offers did not create a situation where end-user choice appeared to be materially reduced (or otherwise materially affected) in practice, and so we did not consider it necessary to investigate these further as to competition concerns related to the provision of these services in the UK. (As noted, however, the Vodafone offers presented traffic management concerns, which caused us to open an investigation.) Some of the key elements of the offers that led us to reach our conclusion as to competition concerns in the UK were:

- **Open platforms** – the Three and Vodafone/Passes/VOXI offers had 'open platforms' which allow other CAPs to request their applications or services to be included in the zero-rated offer. The barriers to entry to CAPs to join offers appears to be relatively low.
- **Alternative offers** – there are different zero-rating offers on the market with different providers each of which include a range of different CAPs' applications and services. This increases end-user choice given the presence of alternative offers to choose from.

3.23 We note however, these types of offers are relatively new to the market and their potential effect may not yet be realised. Consistent with our obligation, Ofcom will keep the services under review and monitor their impact on the market and on consumers as appropriate.

Traffic management

Article 3(3) of the Regulation

Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used.

The first subparagraph shall not prevent providers of internet access services from implementing reasonable traffic management measures. In order to be deemed to be reasonable, such measures shall be transparent, non-discriminatory and proportionate, and shall not be based on commercial considerations but on objectively different technical quality of service requirements of specific categories of traffic. Such measures shall not monitor the specific content and shall not be maintained for longer than necessary.

Providers of internet access services shall not engage in traffic management measures going beyond those set out in the second subparagraph, and in particular shall not block, slow down, alter, restrict, interfere with, degrade or discriminate between specific content, applications or services, or specific categories thereof, except as necessary, and only for as long as necessary, in order to:

a) comply with Union legislative acts, or national legislation that complies with Union law, to which the provider of internet access services is subject, or with measures that comply with Union law giving effect to such Union legislative acts or national legislation, including with orders by courts or public authorities vested with relevant powers;

b) preserve the integrity and security of the network, of services provided via that network, and of the terminal equipment of end-users;

c) prevent impending network congestion and mitigate the effects of exceptional or temporary network congestion, provided that equivalent categories of traffic are treated equally.

- 3.24 Article 3(3) sets out ISPs' core traffic management obligations. ISPs may deploy "reasonable" traffic management practices; to be considered such, they must be transparent, non-discriminatory, proportionate, based on objectively different technical quality of service requirements as opposed to commercial considerations, not monitor specific content, and be in place only for as long as necessary. ISPs may not engage in any other form of traffic management except under precisely stated conditions.
- 3.25 Last year, we reported that we had identified one ISP that deployed certain traffic management practices that warranted further assessment under the Regulation. Engagement with the ISP revealed that it discontinued the practice.
- 3.26 This year, as we did last year, we monitored ISP traffic management measures by asking the largest ISPs directly about their practices as part of our information gathering for our annual infrastructure report (i.e., "Connected Nations"), and by reviewing their traffic management measures as published at their websites. Many ISPs provide this information

through their “Key Factor Indicators” (KFIs), which are relatively standardised forms developed by the industry-led Broadband Stakeholder Group.

- 3.27 This year, in order to answer questions that remained after our review of ISP responses to our Connected Nation information requests and their KFIs, we opened a formal Enforcement Programme to gather further, more detailed, information to enhance our understanding of ISPs’ traffic management practices. We opened the programme in December 2017, and thereafter issued formal information requests to nine of the UK’s largest fixed and mobile ISPs about their traffic management practices.
- 3.28 Following a review of the information provided, we identified some concerns, and opened investigations into Three and Vodafone.³³ Among the concerns with Three is that it has been slowing down or “throttling” certain kinds of traffic for customers when they are roaming; this investigation also encompasses the device limitations described above. Among the concerns with Vodafone is that it has restricted the resolution of video in its Passes and VOXI offerings. The investigations are progressing and we will publish outcomes of them on our website in the usual manner.
- 3.29 We are continuing to assess all other information provided by other ISPs under the wider Enforcement Programme and if we decide to open further investigations, we will, in accordance with our normal process, publish the details on our website.
- 3.30 Beyond the current Enforcement Programme we will continue to monitor ISP traffic management practices in the UK and consider their compliance with the Regulation.

Specialised services

Article 3(5) of the Regulation

Providers of electronic communications to the public, including providers of internet access services, and providers of content, applications and services shall be free to offer services other than internet access services which are optimised for specific content, applications or services, or a combination thereof, where the optimisation is necessary in order to meet requirements of the content, applications or services for a specific level of quality.

Providers of electronic communications to the public, including providers of internet access services, may offer or facilitate such services only if the network capacity is sufficient to provide them in addition to any internet access services provided. Such services shall not be usable or offered as a replacement for internet access services, and shall not be to the detriment of the availability or general quality of internet access services for end-users.

- 3.31 Article 3(5) allows ISPs to provide so-called “specialised services”, or services other than IAS for which specific levels of service are necessary. But they may only do so if network

³³ Ofcom https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/open-cases/cw_01210

capacity is sufficient such that the specialised services of specialised services does not have “a negative impact on the availability or general quality of internet access services”.

- 3.32 As part of our Enforcement Programme information requests, we asked ISPs about whether they provided specialised services, and if so the steps they took to comply with the requirements of the Regulation. We have identified at least one concern that warrants further assessment under the Regulation, and are seeking further information from the ISP concerned before deciding what further steps to take.

4. Transparency measures

Article 4(1) of the Regulation

1. Providers of internet access services shall ensure that any contract which includes internet access services specifies at least the following:

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;

b) a clear and comprehensible explanation as to how any volume limitation, speed and other quality of service parameters may in practice have an impact on internet access services, and in particular on the use of content, applications and services;

c) a clear and comprehensible explanation of how any services referred to in Article 3(5) to which the end-user subscribes might in practice have an impact on the internet access services provided to that end-user;

d) a clear and comprehensible explanation of the minimum, normally available, maximum and advertised download and upload speed of the internet access services in the case of fixed networks, or of the estimated maximum and advertised download and upload speed of the internet access services in the case of mobile networks, and how significant deviations from the respective advertised download and upload speeds could impact the exercise of the end-users' rights laid down in Article 3(1);

e) a clear and comprehensible explanation of the remedies available to the consumer in accordance with national law in the event of any continuous or regularly recurring discrepancy between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated in accordance with points (a) to (d). [...]

4.1 Article 4(1) of the Regulation sets out the transparency measures ISPs are required to adhere to in relation to information contained in customer contracts.

4.2 For ISPs to be compliant with the Regulation, information contained in customer contracts should be accessible, clear and comprehensible. BEREC guidelines set out the test for assessing whether information meets this standard as follows:

- it should be easily accessible and identifiable for what it is;
- it should be accurate and up to date;
- it should be meaningful to end-users, i.e. relevant, unambiguous and presented in a useful manner;
- it should not create an incorrect perception of the service provided to the end-user;
- it should be comparable at least between different offers, but preferably also between different ISPs, so that end-users are able to compare the offers (including the contractual terms used by different ISPs) and ISPs in such a way that the comparison can show differences and similarities.

- 4.3 To fulfill our responsibilities to monitor and ensure compliance in this area in 2017, our primary activities were to complete:
- our review of ISP contract terms and information provided that we had begun the year before; and
 - revise our existing voluntary Codes of Practice covering fixed line ISP provision of speeds data.

Review of ISP contract terms and information provided

- 4.4 In last year's report, we said that we had analysed complaints and issued information requests to the UK's eight largest fixed and mobile ISPs to monitor ISPs' compliance with the transparency requirements of Article 4 (other than as to speeds information, subject to a separate workstream, see below) and were in the process of reviewing information received from ISPs and carrying out additional checks against their websites. We have now completed that review and secured key changes to ISP consumer contracts to enhance transparency around traffic management and how ISP practices may impact on privacy and protection of personal data, as well as changes to improve transparency of the remedies available to consumers if they experienced performance issues with their internet services.
- 4.5 We ensured that the traffic management policies of all eight ISPs, and information how these policies could affect quality of IAS, were accessible through their terms and conditions.
- 4.6 In relation to the use of customers' personal data, we liaised with ICO regarding the privacy and personal data transparency requirements, and secured that the terms and conditions of all eight ISPs contained:
- a description of any traffic management technique being used;
 - a description of the type(s) of personal data processed by this technique; and
 - a description of the safeguards that are to protect the personal data that is being processed.
- 4.7 In relation to remedies, we secured changes to ensure that, at a minimum, consumer contracts provide a clear and comprehensible explanation of:
- the situations where remedies are available in cases of continuous or regularly recurring discrepancy between the performance of the internet access service, or other quality of service parameters, and the performance indicated in the contract – for example, reduced speeds or network faults;
 - the contractual remedies available – for example, fixing the problem, price reduction or early termination of the contract; and
 - remedies available under consumer law – for example, under the Consumer Protection from Unfair Trading Regulations 2008 regarding misleading information, or under the Consumer Rights Act 2015 where goods or digital content provided are faulty or not as described, or a service is not performed with reasonable care and skill.

4.8 With respect to mobile speeds, Ofcom has developed an ongoing programme of work that relates to this issue (see Section 2). We have advised ISPs that we will be in further communication with them on this issue.

4.9 As a result of our engagement with ISPs, and their responses, we have not found it necessary to take any formal enforcement action in relation to the requirements for ISPs to ensure accessible, clear and comprehensible contract terms and information provision for customers (Article 4). However, we have advised the ISPs that we will consider exercising our enforcement powers in relation to those requirements, if and when necessary.

Update to fixed broadband speeds codes

4.10 As we reported last year, Ofcom had established with the main fixed ISPs, long before the Regulation came into effect, voluntary Codes of Practice which relate to the information that signatories are required to provide to customers on their broadband speeds. At the time of last year's report, we were in the process of revising the Codes to align them with the Regulation's transparency requirements.

4.11 On 1 March 2018, we published revised voluntary Codes of Practice for fixed services.³⁴ The revised voluntary Codes are consistent with the mandatory requirements set out in the Regulation,³⁵ particularly, that contracts should include "a clear and comprehensible explanation of the minimum, normally available, maximum and advertised download and upload speed of the internet access services in the case of fixed networks".

4.12 The main changes to the Codes were to:

- improve relevancy of speed estimates at point of sale by reflecting peak time speeds;
- always provide a minimum guaranteed download speed at the point of sale;
- strengthen customers' right to exit; and
- ensure customers benefit from the code regardless of their broadband technology.

4.13 As the revised Codes are voluntary and are consistent with the Regulation, all providers, whether signatories to the codes of practice or not will need to comply fully with the Regulation. If we identify that ISPs are not complying with the requirements of the Regulation and decide to investigate, we will do so, in accordance with our normal processes.

4.14 Under the Regulation, advertised speeds must be included in contracts. In the UK, the Committee of Advertising Practice (CAP) is the body responsible for advertising guidelines for broadband speeds. In the past, CAP guidelines allowed advertisers to present speed

³⁴ Ofcom: https://www.ofcom.org.uk/data/assets/pdf_file/0024/111696/statement-broadband-speeds.pdf

³⁵ Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union.

claims as “up to” speeds. These speeds needed to be achievable by at least 10% of customers.

- 4.15 Following a review, on 23 November 2017 CAP announced new rules³⁶ for how broadband speed claims should be formulated and substantiated. CAP announced that numerical speed claims should be described as “average” in advertisements for residential broadband and should be based on a download speed available to at least 50% of customers at peak time. The guidance took effect from 23 May 2018 after a six-month implementation period.

³⁶ CAP, 2017. Major change to broadband speeds claims in ads <https://www.asa.org.uk/news/major-change-to-broadband-speed-claims-in-ads.html> accessed February 2018

5. Complaints and remedies

- 5.1 In addition to setting out transparency requirements, Article 4 of the Regulation also requires ISPs to have procedures to manage complaints about consumers' core rights under the Regulation, and addresses consumers remedies.

Complaints procedures

Article 4(2) of the Regulation

Providers of internet access services shall put in place transparent, simple and efficient procedures to address complaints of end-users relating to the rights and obligations in Article 3 and paragraph 1 of this Article.

- 5.2 Article 4(2) requires ISPs to have transparent, simple, and effective processes to address customer complaints about their core rights under the Regulation.
- 5.3 In our last report, we indicated that Ofcom was then reviewing its General Conditions of Entitlement (“GCs”), and as part of that was reviewing its complaint handling procedures. Under the relevant GC, all ISPs must have and comply with procedures that conform to the Ofcom Approved Code of Practice for Complaints Handling (“Code of Practice”). These include requirements on transparency, accessibility and effectiveness. ISPs are also required to include information about Alternative Dispute Resolution (ADR) on their websites and on consumers' bills and to write to consumers whose complaints have not been resolved within eight weeks to inform them of their right to ADR. Where complaints reach deadlock, a consumer can also request a “deadlock letter” from his or her provider, enabling the consumer to take his or complaint to an ADR scheme.
- 5.4 In September 2017, we published a statement on the conclusion of our GC review.³⁷ As to the GC on complaints handling, we strengthened the requirements, including those for IAS. The updated rules require CPs to inform customers how their complaint will be handled, how long it will take, and that they have the right to use ADR if their complaint concludes without a resolution. The updated rules will come into force on 1 October 2018.

³⁷ Ofcom [Statement on the Review of the General Rules of Entitlement](#)

Remedies and redress

Article 4(4) of the Regulation *Any significant discrepancy, continuous or regularly recurring, between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated by the provider of internet access services in accordance with points (a) to (d) of paragraph 1 shall, where the relevant facts are established by a monitoring mechanism certified by the national regulatory authority, be deemed to constitute non-conformity of performance for the purposes of triggering the remedies available to the consumer in accordance with national law.*

- 5.5 Article 4(4) gives end-users the right to invoke remedies through national law if there are continuous or regular discrepancies between ISPs' performance relating to speed or other quality of service measures, and a certified monitoring mechanism established by the NRA.
- 5.6 In the UK consumers have access to several different remedies in cases of poor or non-performance by their ISP. First, under the revised voluntary Codes of Practice for broadband speeds for fixed services, customers will receive a minimum guaranteed speed at the point of sale. If speeds fall below the minimum guaranteed level for a sustained period of time, the customer has the right to exit the contract without penalty. ISPs are required to make information about the right to exit in after-sale information more prominent and to link it more clearly to the minimum guaranteed speed so that customers understand what triggers this process.
- 5.7 Second, depending on the circumstances, under UK general consumer/contractual law, consumers may be entitled to a refund for a loss of/lower service levels, or may have the right to leave their contract without penalty.
- 5.8 Third, in November 2017 we published our Automatic Compensation statement³⁸, which set out our decision to accept a voluntary scheme put forward by industry to introduce automatic compensation to protect residential landline and/or fixed broadband consumers who are affected by service quality issues such as delayed repair, missed appointments or loss of service. This is an industry-led scheme that will come into effect in early 2019.
- 5.9 We will monitor development and implementation of the scheme for 12 months. If we find that it is not delivering on our policy objectives, we will consider formal regulatory action.
- 5.10 We also introduced a new General Condition³⁹ on transparency and information requirements to help small and medium sized business customers (SMEs). This will ensure that when choosing services (and later if they experience service quality failures), SMEs have better information, in a clear and accessible format, about what level of service quality to expect.

³⁸ Ofcom [Automatic Compensation](#) Statement

³⁹ Ofcom [Statement: Review of General Conditions of Entitlement](#)

Checker tool

- 5.11 The Regulation refers to the possibility of NRAs certifying speed and quality of service monitoring mechanisms for IAS. We have not yet certified any quality of service monitoring mechanism.
- 5.12 Nonetheless, as we reported last year, we have released a checker tool which allows consumers to measure the performance of their internet connection they receive on their mobile and fixed networks. The tool is available as a smartphone app for iOS and Android devices or can be used directly on the Ofcom website. The checker runs a series of tests and measurements which are set out in detail on our website. If the checker finds any problems with the consumer's connection, it provides tips on how performance may be improved. In future, we will review the efficacy of the checker tool and consider whether to develop a certified tool for consumers to monitor the quality of their IAS.