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Broadband Speeds Codes of Practice

Proposals to revise the Residential and Business Voluntary Codes of Practice on Broadband Speeds

CONSULTATION:

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About this document

Broadband is an essential service for people and businesses, who increasingly rely on the internet for a wide range of activities. Speed is an important factor when consumers buy a broadband service. Customers therefore need realistic information, both at the point of sale and in their contract, about the broadband speeds they can expect.

Ofcom already has codes of practice on broadband speeds for residential and business customers, which require signatories to provide consumers with estimates of the speeds they are likely to receive at the point of sale. In addition, they give customers the right to exit their contracts, without penalty, if their speed falls below a minimum level.

We are proposing to strengthen the current codes to improve speed estimates provided at the point of sale, after sale and in customer contracts and to enhance customers' right to exit. These changes would also ensure the codes apply to all technologies used to deliver broadband.

This document outlines our proposed changes to the current codes. We invite comments on the proposals from all interested parties.

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1. Summary

Broadband speeds are an important factor in customer choice

1.1 Broadband services are increasingly important to people and businesses, many of whom depend on the internet for day-to-day activities including communication, entertainment and trade.

1.2 Broadband speeds have a significant impact on the quality of service internet users receive and the range of activities they can carry out. Therefore, speed is often a key consideration when customers choose their broadband service; and services advertised at higher speeds tend to be priced at a premium.

1.3 However, the actual speeds available to individual customers will vary, depending on factors such as how far away they are from the local telephone exchange or street cabinet (line length), the number of people sharing the same network, and features within their own home or premises, for example the internal wiring or wifi. These factors mean the speed a customer actually receives may be lower than the headline speeds set out in advertisements.

1.4 It is therefore important that, when choosing a service, customers know what speed they are likely to receive. This will enable them to make a more informed decision about which service would suit them best.

The Broadband Speeds Codes help empower customers

1.5 Ofcom has two objectives here. First, to ensure customers have clear information to help them compare broadband offers, in particular by understanding the speed they are likely to receive. And second, that customers have protection if the actual speed they receive is below a minimum guaranteed level.

1.6 Ofcom has introduced two key measures to help meet these objectives: the Residential and the Business Broadband Speeds Codes of Practice. All of the UK's largest providers have signed up to these codes, which set out a number of commitments to help customers shop around with confidence. In particular, they specify that speed estimates reflecting the impact of the customers' line length should be provided at the point of sale, and set out how they should be calculated. In addition, the codes provide customers with a right to exit their contracts without penalty if their speed falls below a minimum guaranteed level.

1.7 In addition to introducing the codes, we have contributed to the work of the Advertising Standards Authority (ASA) and the Committees of Advertising Practice (CAP), which are currently reviewing advertising guidelines for broadband speeds. We have also published a range of information to help consumers with broadband speeds issues.

Our review of the current codes

1.8 We have carried out a review of the two broadband speed codes to assess how signatories are complying with their current commitments. We have also examined, with industry, how we could improve those commitments to benefit customers.

1.9 In addition, we have considered how the codes should be revised to align with the new EU Open Internet Access Regulation,[1] which requires certain speed information to be included in customer contracts for broadband services. In particular, we are proposing that contracts include information consistent with the requirements of the regulation. We have also considered how to align the speeds information customers receive at the point of sale with the information in their contracts (as required by the Regulation). This is to ensure consistent information is given to customers, and to reduce any potential confusion.

1.10 Overall, we found that compliance with the codes was satisfactory. In particular, our mystery shopping research on the residential code demonstrated that, in the majority of instances, signatories quote a speed estimate as part of the sales process, and do so in the correct way. The research also showed a continued increase in rates of compliance compared to previous research. However, our review demonstrated that there is room for improvement in a number of areas, particularly around proactively providing a speed estimate at point of sale, and the contextual information that should accompany it. All code signatories have now set out specific steps they will take to improve compliance in these areas.

1.11 In light of this, and the progress we have made with signatories in identifying how to improve the codes, we have decided to continue with the current voluntary approach, the signatories to which include the largest broadband providers in the market. However, we will keep this under review. We will carry out additional monitoring, such as mystery shopping, and report on compliance on a regular basis. If we were, in due course, to find that the codes are not delivering benefits as expected, we would reconsider our approach.

Our key proposals to improve the codes

1.12 Following our review, we have identified how the code commitments, and therefore the information given to signatories' customers and their right to exit, could be improved. The key proposals are:

- **Providing more realistic speed estimates at the point of sale.** We propose that estimates should reflect the reduction in speeds that occurs during peak-time

[1] 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 231/2012 on roaming on public mobile communications networks within the Union, OJ L310/1, 26.11.2015.

network congestion. This would give customers a better idea of the speed they will receive when they are most likely to use their broadband service.

- **Always providing a minimum guaranteed speed at the point of sale.** This will enable customers to compare providers' estimated minimum speeds when shopping around.
- **Strengthening customers' right to exit if speeds fall below the minimum level**. Our proposals will introduce a limit on the length of time providers have to improve speeds before they must offer the right to exit. We also specify that residential customers' right to exit should be offered for phone services provided over the same line as the broadband service, as well as pay-TV services purchased at the same time as the broadband service.
- **Ensuring all customers benefit from the codes, regardless of their broadband technology.** Currently, the codes only apply in full to broadband services provided over certain networks such as copper and part-fibre. This is because at present, speed estimates only need to reflect the reduction in speed caused by line length. The revised codes would require speed estimates to also reflect peak-time congestion, which affects all networks. Therefore we are, for the first time, ensuring that all signatories' customers benefit from the codes regardless of their broadband technology, including those on cable networks.

Next steps

1.13 We seek views from all interested parties on our proposals in this consultation by 5pm on 10 November 2017.

1.14 Following this consultation period, Ofcom plans to seek commitments from signatories to implement the new codes and publish a statement in early 2018. This statement will confirm the date by which signatories will need to have implemented the new codes in full.

1.15 We will also publish a consumer guide to help raise awareness of the additional benefits that the new codes will bring.

2. Background

2.1 Fixed broadband services play an important role in people's personal and professional lives today, and available speeds have a significant impact on the quality of service that users receive.[2] As a result, speed is one of the main criteria by which broadband tariffs are tiered and advertised.

2.2 However, for reasons set out below, customers can experience a major difference between the speed they see advertised and the speed they receive in practice. This can lead to poor purchasing decisions and significant frustration for customers who receive much lower speeds than they expected.

2.3 Ofcom wants to ensure that customers are empowered to obtain the best communications deals available to meet their needs. We therefore consider it important that customers understand the speed they are likely to receive from a particular package and provider, so that they can make informed purchasing decisions.

2.4 Specifically, our fixed broadband speed objectives are to ensure that customers:

a) have clear information to help them compare broadband offers, including by understanding the speed they are likely to get; and

b) have protection if the actual speed they receive is significantly below a minimum guaranteed level.

2.5 This section sets out the background to the review, in particular why broadband speeds information is important and the work we have carried out to date to improve this information, in particular the current Residential and Business Broadband Speeds Codes (the codes).

The importance of broadband speed estimates

2.6 Broadband speeds have a significant impact on the quality of service a customer receives, and the range of activities they can carry out.

Broadband speeds are variable

2.7 However, there can be considerable variation in the broadband speeds obtained by customers, even for those taking the same broadband package from the same provider. Most consumers are unlikely to understand how and why speeds vary[3] and therefore what speed they should expect to receive from a provider at their home or premises.

[2] For example, we have found that usage seems to be restricted on connections with a speed below 10Mbit/s (see Ofcom, Achieving decent broadband connectivity for everyone , December 2016)

[3] See Qualitative Research for Broadband, November 2016. Section 3 of the report indicates that only consumers with higher levels of knowledge about their service are likely to have a good appreciation of what can affect broadband speeds.

2.8 The three main reasons for variations in fixed broadband speed are:

- **The length of the connection to the user's home or premises.** For copper-based and part-fibre telephony networks, the longer the connection, the slower the speeds are likely to be.[4] In particular, lower broadband speeds for these technologies in rural areas are typically due to longer line lengths.
- **Network congestion (contention) which can reduce speeds at busy times,** especially during the peak time, which is 8 – 10pm for residential customers and 12 – 2pm for business customers.[5] If the demand on the network is higher than its capacity, (whether locally or across the network more broadly), then the effect of this contention is to reduce the speed available to the affected customers. The variation in speeds at busy times is more notable for cable than other technologies[6] but is evident across the UK, including both urban and rural areas.[7,8]
- **Factors in the customers' own home or premises** – e.g. the quality of the wifi signal, the number of people using the internet within the premises, property wiring, or the ability of devices to support higher speeds. A provider may be able to address some of these issues (for instance, providing a better router) but many are outside their control. In addition, customers may not realise that their device or use of wifi can affect the speed they obtain.

2.9 For copper and part-fibre networks (referred to as DSL services,[9] which are the most common type of fixed broadband) there are also service degradation effects from the broader environment, such as interference from nearby electrical equipment or crosstalk (interference from neighbouring lines). These effects can vary by time of day, and can potentially increase over time.

[4] The resistance of copper wire increases with the length of the wire, so speeds decay as the distance between the home /premises and the exchange and/or cabinet increases. Consumers who live in less densely populated parts of the UK are more likely to live further from the exchange and/or cabinet, and therefore achieve lower broadband speeds. This affects all DSL services, as FTTC (part-fibre) services still use a copper (or other metallic) connection from the cabinet to the premises.

[5] Based on information provided by ISPs.

[6] This is due to cable network topologies, which mean that network congestion occurs nearer to the customer (in the access network rather than the backhaul network) making it more difficult (and expensive) to add the additional capacity required to alleviate the effects of congestion. See Ofcom, UK Home Broadband Performance research report , April 2017.

[7] See UK Home Broadband Performance research report, April 2017 pp12-13.

[8] Congestion can also occur at an online service itself, such as when a large number of people are trying to access a specific website.

[9] DSL (Digital Subscriber Line) is a family of technologies generically referred to as DSL, or xDSL, used to add a broadband service to an existing phone line provided using a pair of metallic – usually copper - wires (known as a twisted pair). Part-fibre or Fibre to the cabinet (FTTC) is a form of DSL service.

Advertised speeds may differ from the speed consumers actually receive

2.10 Although there can be considerable variation in broadband speeds, advertised broadband speeds are based on national information, and so may not necessarily reflect the speed that individual customers will receive. [10]

2.11 Research carried out by the Advertising Standard Authority (ASA) last year suggested that most consumers believe they are likely to receive a speed at or close to the headline speed. But for up to 90% of consumers[11], that may not be the case.[12]

2.12 Therefore, there can be a mismatch between customer expectations, (based on advertised headline speeds), and the speed they would actually receive. As a result, customers may not be able to identify and obtain the right fixed broadband service for their requirements.

2.13 In light of this, the Committee of Advertising Practice and Broadcast Committee of Advertising Practice[13] are undertaking a review of how broadband speed claims in advertising should be formulated and substantiated, with the aim of reflecting a larger proportion of customers' experiences. We have contributed to their review and responded to their recent consultation.[14]

Measures already in place

2.14 To date, Ofcom has put in place a number of initiatives to help customers get the right broadband service for them.

2.15 In particular, we have worked with industry to produce two voluntary codes of practice in which signatories agree to give customers better information on broadband speeds when they consider or buy a broadband service, and to allow customers to exit their contract when speeds performance falls below a minimum guaranteed level:

a) In 2008, we introduced the **Residential Broadband Speeds Code (the "Residential Code").**[15] The Residential Code has been subject to a number of revisions, the most recent of which was implemented in 2015.[16] The current signatories are BT, EE, KCOM, Sky, TalkTalk, Virgin Media, Vodafone and Zen.

b) In 2016, we introduced the **Business Broadband Speeds Code (the "Business Code")**,[17] which aims to ensure businesses benefit from better broadband speeds

[10] For this reason, headline speeds presented in advertising are normally preceded by the words "up to".
[11] Current CAP guidance requires the advertised speed of a package to be available to at least 10% of customers. As such, up to 90% of customers may not be achieving the advertised speed.
[12] Qualitative Research for Broadband , November 2016.
[13] Consultation on speed claims in broadband advertising , May 2017.
[14] Ofcom's response to their consultation can be found here: Speed claims in advertising July 2017, with Annex
[15] Voluntary Code of Practice: Residential Broadband Speeds
[16] This extended the right to exit to the whole period of the contract, rather than just the first three months.
[17] Voluntary Code of Practice: Business Broadband Speeds

information, along the lines of the information already provided to residential customers under the Residential Code. The current signatories are BT, Daisy, KCOM, TalkTalk, Virgin Media, XLN and Zen.

2.16 In addition, Ofcom itself provides a range of consumer information and tools to help consumers with broadband speeds issues. We publish:

- information on the average performance of residential broadband packages, including speeds, as part of our UK Home Broadband Performance Reports;[18]
- regular 'snapshots' of broadband coverage as part of the Connected Nations reports, which looks at the availability and take-up of services provided to residential consumers and to SMEs;[19]
- consumer guides about getting the most out of broadband services[20]; and
- a checker app so that consumers can find out about their broadband speeds and the availability of services where they live. [21]

2.17 The focus of this consultation is on the codes. We provide further information on the current codes here. In Section 3 we provide an overview of our review and the key changes that we are proposing to make.

Residential Code

2.18 The current Residential Code includes a number of specific commitments that signatories agree to. In addition, it sets out the expectation that signatories comply with the spirit of the code, not just the letter, so that Internet Service Providers (ISPs) use common sense in abiding with and interpreting the code. We outline here the main requirements of the current code.

Information at point of sale

2.19 The Residential Code requires ISPs to provide customers with their estimated **access line speed** at the point of sale.[22]

2.20 The access line speed is the maximum speed a consumer will experience on his/her individual line, and reflects the reduction in speed caused by the distance of the customer's premises from the cabinet or local telephone exchange.

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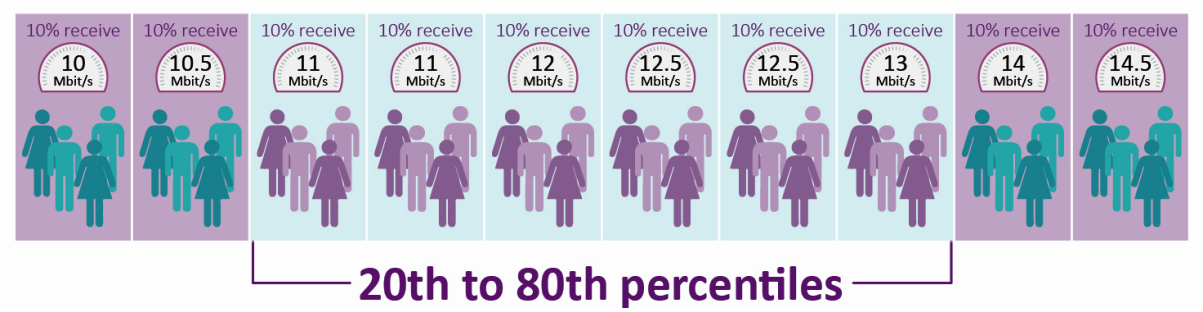
[18] https://www.ofcom.org.uk/research-and-data/telecoms-research/broadband-research
[19] https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research
[20] https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/advice/broadband-speeds
[21] https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/advice/ofcom-checker
[22] This is to be provided as early as possible, and in any event before consumers are asked for personal financial details. The code also requires that ISPs provide a line/speed checker on their website so that consumers can readily find out what their estimated access line speed would be if they chose a particular broadband package.

2.21 The code sets out that this speed estimate should be provided in the form of a range, equivalent to the access line speeds achieved by the 20th to 80th percentiles[23] of the ISP's customers who have similar lines, and who are on broadband packages of the same headline speed that the customer is enquiring about ("similar customers").[24]

2.22 The image below illustrates how the range would be calculated. For a group of similar lines, each line is placed in ascending order of speed, and the speeds of the lines which are 20% and 80% of the way along this group are used as the range. In this example, the range would be 11-13 Mbit/s (the range of speeds experienced by the highlighted figures).

Figure 1: An illustrated example of the 20th – 80th percentiles, giving the estimated speed range 11-13 Mbit/s



2.23 The use of a range serves to reinforce the point that broadband speeds can still vary from line to line and across the course of a day. In addition, a precise address-level is not currently available for DSL services, and the current range ensures that the values given are relevant to the majority of customers.[25] The ISP needs to explain that the range is only an estimate and that if the customer receives a speed significantly below that range, the customer should contact their ISP.

2.24 If the customer then requests further explanation, the ISP must inform them of the **minimum guaranteed access line speed**. This is the access line speed achieved by customers in the bottom 10th percentile of the ISP's similar customers.[26] They also need to explain the process for managing speed problems, which is discussed below.

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[23] Here the 80th percentile is the highest access line speed achieved by 80% of customers in the group, with the remaining customers achieving a higher speed. The 20th percentile is the highest access line speed achieved by the bottom 20% of similar customers.

[24] An ISPs may adopt an alternative approach to calculating the range if they can demonstrate that the approach provides a more accurate estimate of customers' access line speeds. Any alternative approach must however provide a narrower range than using the approach set out in the code.

[25] This is because it represents 60% of similar customers (i.e. those with better speeds than the slowest 20%, but worse speeds than the fastest 20% of connections).

[26] The 10th percentile was chosen as a minimum speed because it was considered that the 20th (i.e. the lower end of the estimated speed range) was too high for a guaranteed minimum. It also reflects the need to balance the protection of consumers while not imposing an undue burden on industry

After sale information

2.25 After the customer has placed an order, the ISP must provide certain information in writing, including the access line speed range, the minimum guaranteed access line speed, an explanation of factors that may affect the actual speed received, as well as information on their right to exit.

Managing speed problems and the right to exit

2.26 The current code requires ISPs to help customers who are not receiving the speeds they had expected to receive; and sets out the process that should be followed when doing so.

2.27 ISPs need to be able to identify whether the speed is at or below the minimum guaranteed speed. If it is, they need to explain to the customer that, if they are unable to improve the speed, the customer will be able to leave their contract immediately, without penalty. However, if the speed problem is due to factors within the customer's home, such as internal wiring, then the ISP should explain this and provide assistance to help the customer alleviate the problem.

2.28 If the ISP is subsequently unable to improve the speed so that it is above the minimum guaranteed level, and the customer has implemented measures advised by the ISP, the ISP must offer them the right to exit. The ISP may also offer other alternative remedies alongside the right to exit.

Scope of the code

2.29 The current codes apply in full to DSL or fixed broadband delivered by fixed wireless (including satellite).[27] However, this is not the case for cable networks. In particular:

- The requirement to provide the access line speed estimate and, if requested, the minimum guaranteed access line speed do not apply to cable because the access line speed does not degrade with distance and is therefore expected to be consistent with the advertised speed.
- Furthermore, as the right to exit is triggered if the customers' speed is at or below the minimum guaranteed access line speed, this does not apply either.[28]

2.30 In addition, the codes do not apply to Fibre to the Premises (FTTP) networks. This is because when the Residential Code was implemented and, later, reviewed, this type of technology was still relatively new (only very recently starting to become a more mainstream choice). As the code only covered the most common forms of fixed broadband access, FTTP was therefore not included. The Business Code was drawn up to mirror closely

[27] Although there are currently no signatories offering fixed wireless services

[28] These ISPs must still be able to identify the cause of any speed related problem that their customers face, to explain the cause clearly to the customer and how the problem might be addressed. If the cause is within the ISP's control, it must monitor the problem until resolution, reasonable remedial actions are exhausted or the customer is satisfied.

the principles of the Residential Code and FTTP was therefore omitted from the scope of this code too.

Business Code

2.31 The Business Code is aimed at business customers purchasing standard business broadband services. It largely mirrors the Residential Code, including the requirements to provide an estimated access line speed range at point of sale; the minimum guaranteed access line speed, if requested; as well as the right to exit.

2.32 However, the Business Code includes a number of differences, and these reflect the additional complexity of business broadband services and the different ways in which these services are sold. These differences include the following points:

- the requirement to provide an access line upload speed estimate at point of sale.[29] This must be within the same range as the access line download speed estimate range, if available, or a single point estimate if the range is less than 2Mbit/s;
- where the right to exit applies, the ISP can ask the customer to return the internal equipment it provided (e.g. modem), as long as they do not require the customer to pay the delivery cost of returning the equipment; and
- the right to exit applies not just to individual broadband services but also to certain types of bundles[30] and dependent services.[31]

Monitoring the codes

2.33 The codes state that Ofcom will monitor signatories' compliance with the codes through a number of methods. The primary mechanism for assessing compliance at the point-of-sale is periodic mystery shopping, to determine whether information is being given at the correct time and in the right way.

2.34 Should we have concerns about the compliance of a signatory, the codes state that Ofcom will write to them and set out where we consider they are non-compliant, seeking representations and asking the ISP to take steps to address the compliance issues. If we consider that an ISP should be removed from the code, we will notify the ISP. If that ISP subsequently takes step to comply then it may continue to be a signatory.

[29] This only has to be provided on request under the Residential Code.
[30] Where the customer buys more than one communications service from the same provider.
[31] See paragraphs 2.44 to 2.46 of the Business Broadband Speeds Code of Practice. These are services which are dependent on, or require, that particular ISP's broadband service in order to function.

3. Our review of the codes

Why we have carried out this review

3.1 In 2016 we started a review of the codes for two main reasons. First, to test compliance to ensure that signatories are meeting their commitments. The primary focus here has been on compliance with the Residential Code, because when we began this review, the Business Code had only just been introduced.

3.2 Second, we wanted to assess whether the commitments in the codes needed revising in light of recent developments. This is important given the fast-moving nature of the fixed broadband market, which has witnessed considerable change since Ofcom first introduced the Residential Code in 2008. At that time, fixed broadband services were primarily lower-speed ADSL services. Growth in availability and take-up of broadband, including superfast broadband, has enabled consumers to simultaneously use multiple connected devices. In addition, growth in demand for high bandwidth services such as video streaming, have contributed to the emergence of network contention as a key factor affecting speeds, particularly for cable and (FTTP) technologies.

New EU regulation

3.3 In addition, the Open Internet Access (EU Regulation) Regulations 2016 (the Regulation), sometimes referred to as the Telecoms Single Market or Net Neutrality Regulation, came into force on 30 April 2016. This contains mandatory requirements for the provision of certain speed information in contracts, and applies to all ISPs. Of particular relevance here is Article 4 (d) of the Regulation, which specifies 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".

3.4 These measures are not all captured by the current codes. We want to ensure that the codes require that contracts include information consistent with the requirements of the Regulation. We also want to align the speed information required under the codes at point of sale, with the speed information required in contracts by the Regulation. This is to help ensure customers are given consistent information at all stages of their contact with their provider, including when they contact them with any speed problems.

3.5 It is our view that the after-sale information required under the revised codes is consistent with the information required in contracts under Article 4(d).[32] The codes also require that this information is incorporated into contracts.

[32] Taking into account BEREC's guidelines, available here.

3.6 Ofcom will consider individual practices on their merits and any enforcement action in relation to the provisions of the Regulation in line with our enforcement guidelines.[33] In considering such action, we will take into account ISPs' compliance with their commitments under the codes. However, we recognise that there are alternative ways to comply with Article 4(d) and ISPs are encouraged to take their own legal advice on how to comply with the Regulation.

Evidence used to inform the review

3.7 To inform this review, we drew on Ofcom research, in particular new mystery shopping research to test compliance with the point-of-sale information requirements in the Residential Code;[34] and responses to information requests that we sent to signatories of the Residential and Business Codes.

3.8 We also engaged extensively with a wide range of stakeholders, in particular:

a) the current signatories to the codes and Openreach, to help ensure that the proposed revisions were feasible and proportionate in delivering our overarching policy objectives to improve speed information and the right to exit for customers;[35] and

b) business and residential consumer interest groups as well as industry stakeholders to highlight key potential changes and receive early input on our approach.

3.9 Below we summarise the main findings of our mystery shopping research and information gathering from signatories, and our decision to continue with the voluntary codes. We then summarise the key proposed changes to the codes; further details are provided at Annex 1.

Mystery shopping

3.10 Ofcom used mystery shopping to test providers' compliance with the existing Residential Code.[36] Specifically, the research tested the provision of a speed estimate at the point of sale, when in the sales process the estimate was provided and whether supporting explanations were also given.[37] The fieldwork for this research was carried out between

[33] https://www.ofcom.org.uk/__data/assets/pdf_file/0015/102516/Enforcement-guidelines-for-regulatory-investigations.pdf

[34] Other key research we drew on included Ofcom's UK Home Broadband Performance report, which provides information on the average performance of broadband packages including actual speeds experienced by research participants and the Connected Nations report 2016, which enabled us to analyse and compare predicted and maximum speed for Fibre to the Cabinet services and derive a first order view of the accuracy of the underlying model used to predict speeds for these services.

[35] We have held eight industry workshops with signatories between October 2016 and July 2017, and have organised bilateral meetings to discuss the key proposed changes and to explore options for alternative approaches.

[36] The Business Code did not undergo testing because it had only very recently been implemented, and we considered it unlikely to produce substantively different results to the Residential Code testing.

[37] The Code requires providers to give contextual information to explain why the consumer may not be able to achieve this speed in practice.

September and December 2016 and the full report is published alongside this consultation.[38]

3.11 Overall, our mystery shopping report found that the rates of compliance have improved compared to previous research. It found that in the majority of instances[39] signatories quote a speed estimate at the point of sale. However, it also demonstrated that more can be done to increase the transparency of broadband speed information, particularly to ensure the proactive provision of the speed estimate[40] and of the contextual information that should accompany it.

3.12 We discussed the findings with code signatories, highlighting areas where improvement was needed. In light of these discussions, all code signatories have set out the specific steps that they will make to improve compliance in these areas, which are outlined in Annex 2. The mystery shopping results have also helped inform revisions to the Code, (in particular the proposed changes to clarify which information needs to be given to customers and when).

Information requests

3.13 We requested information from signatories to test compliance with the after-sale provisions of the Residential and Business Codes. We also drew on this information to help us assess whether the current codes needed revising.

3.14 We found that signatories were consistently effective in providing speed estimates in after-sale information (as required by both codes). In addition, information about the right to exit was generally present, but should have been linked more clearly to the minimum guaranteed speed. In some instances, information on the right to exit was not very prominent. As a result, when assessing revisions to the codes, we have sought to improve clarity about, and prominence of, information on the right to exit.

3.15 In addition, signatories were largely unable to report on how many customers had been offered, and had taken up, the right to exit. Such information is useful to understand the effectiveness of this measure, and we are proposing to require its collection in the revised codes.

Decision to continue with the codes

3.16 Ofcom is required to have regard, in all cases, to the principles of transparent, accountable, proportionate, consistent and targeted regulation, and any other principles appearing to

[38] https://www.ofcom.org.uk/research-and-data/telecoms-research/broadband-research/broadband-speeds/mystery-shopping-october-2017

[39] In 95% of assessments a speed estimate (range or midpoint) was given to mystery shoppers (prompted or unprompted) across the three channels. The individual channel percentages are: telephone 97%, store 92% and webchat 94%.

[40] The speed estimate (range or midpoint) was provided without prompting in almost two thirds (64%) of all instances. For telephone assessments, the figure was 70%, for store assessments 67% and for webchat 43%.

Ofcom to represent regulatory best practice. Ofcom is also to have regard to the desirability of promoting and facilitating self-regulation. In addition, under our regulatory principles, we should always seek the least intrusive regulatory mechanisms to achieve our policy objectives.

3.17 Overall, our review has found that compliance with the codes is satisfactory.[41] We note that a voluntary solution can be faster to implement, thereby bringing benefits to customers more quickly than through formal regulation. We are pleased that the code signatories have demonstrated their commitment to strengthening the codes throughout the current review and have been supportive of changes that tighten the requirements and improve information for customers as well as the right to exit.

3.18 In light of these factors, we believe that the voluntary codes remain a proportionate and appropriate approach to achieve our objectives, working with industry to ensure better speed information and an improved right to exit for customers.

3.19 However, we will keep this under review. We will carry out additional monitoring, such as mystery shopping, and report on compliance on a regular basis. Should we have concerns about compliance by an individual signatory, we will act swiftly, including by removing that signatory from the codes if appropriate.[42] If we were, in due course, to find that the codes overall are not delivering benefits as expected, we would reconsider our approach.

Key proposed revisions to the codes

3.20 We are proposing a number of changes to the codes[43], and these are set out in detail at Annex A1. We have outlined the four key improvements below.

Providing more realistic speed estimates

3.21 Under the current codes, ISPs need to provide an access line speed estimate that reflects the likely reduction in speed due to the customer's line length. However, broadband speeds may also fall below advertised speeds due to network congestion. This factor has become more important as the growth in broadband users' data consumption has placed additional capacity demands on networks, particularly at busy times.[44] Ofcom's UK Home Broadband Performance report shows that average broadband speeds decrease during

[41] As noted earlier in this section, mystery shopping of residential broadband services demonstrated that compliance has continued to improve and the code is effective in ensuring that speed estimates are provided to customers at the point of sale. Although the mystery shopping research highlighted some areas where improvements were needed, the signatories have each set out the additional steps they will take to ensure compliance improves. Responses to our information requests showed that signatories were consistently effective in providing speed estimates in after-sale information under both the Residential and Business Codes.
[42] In any event, those elements that reflect the Regulation (as noted above) refer to mandatory obligations on all ISPs and non-compliance with these requirements could still result in formal investigations and enforcement action.
[43] As the codes are a voluntary measure, we have not conducted an impact assessment of the proposed changes.
[44] Ofcom, UK Home Broadband Performance April 2017

peak times and that this degradation is more pronounced for some broadband packages than others.[45]

3.22 We now consider that this effect should be included in the speed estimates customers receive at point of sale. Specifically, we are proposing that the estimates reflect speed conditions at **peak time** (8-10pm for residential services, 12-2pm for business services).

3.23 In addition, by its very nature, a peak time speed would reflect the speed available at the time when customers are most likely to use their service. Peak time estimates can therefore help customers compare services more accurately and choose a product that will meet their needs at the time they are most likely to use it, irrespective of the technology used.

3.24 To achieve this, we propose that ISPs test a national sample of their customers on each broadband package during peak time to produce an estimated **"normally available"** speed estimate. This will need to be provided as a range, as under the current codes.[46]

3.25 We are also proposing that the effects of peak time network contention are reflected in the other speed estimates that ISPs need to provide, including the minimum guaranteed speed estimate, and the normally available upload speed estimate.

Always providing a minimum guaranteed speed estimate at point of sale

3.26 Under the current codes, ISPs must provide the minimum guaranteed access line speed in after-sale information but, at the point of sale, they only need to provide this estimate if a customer questions what happens if they receive a lower speed than estimated or if they request a minimum estimate.

3.27 Under the new codes, we propose that the minimum guaranteed download speed should always be given at the point of sale, as well as being included in after-sale information.

3.28 Including this measure at the point of sale will further help to manage customer expectations about the potential performance of their line and underline that it is possible that it may be slower than the 'normally available' estimate. It will help customers to understand the minimum they should expect from their service and enable them to compare providers estimated minimum speeds when shopping around.[47]

Strengthening the right to exit

3.29 The current codes allow customers to exit their contract without penalty if their speed has fallen below the minimum guaranteed speed and the ISP cannot subsequently improve it. It is currently unclear the extent to which eligible customers are taking up the right to exit,

[45] See Figure 9, Ofcom, UK Home Broadband Performance , April 2017
[46] This range would still be the speeds for the 20th and 80th percentiles, see paragraphs 2.21 – 2.22.
[47] ASA research has shown that some consumers, particularly those who are less technically knowledgeable, may find it valuable to be able to compare minimum speeds.

because ISPs do not routinely collect data here. However, we understand from code signatories that take-up of the right to exit is very low. We believe that one reason for this may be a lack of awareness amongst customers.[48] In addition, the process itself may not be very effective.

3.30 The changes we are proposing here include the following:

- Include a new limit of 30 calendar days for ISPs to diagnose and fix the speed problem before they must offer the right to exit.
- Require information about the right to exit in after-sale information to be more prominent and to link it more clearly to the minimum guaranteed speed so that customers understand what triggers this process.
- Clarify how the right to exit applies to additional communications services that residential customers may have taken with the same provider. We specify that the right to exit in the Residential Code should be offered for phone services provided over the same line as the broadband service, as well as pay-TV services purchased at the same time as the broadband service.

3.31 In addition, in order to monitor the take-up of the right to exit more effectively, we are proposing to include requirements for ISPs to collect data about how often speed problems are reported, and how often the right to exit is offered and taken up.

Ensuring all customers benefit from the codes, regardless of their broadband technology

3.32 As noted in Section 2, key provisions of the current codes do not apply to cable and FTTP services. The nature of their networks means that speeds do not worsen with line length, so the access line speed should be similar to advertised speed. As a result, cable and FTTP were not required to provide estimates.

3.33 However, we are now proposing that speed estimates reflect network contention, which affects all networks. Furthermore, the variation in speeds at busy times is more notable for cable than for DSL networks.[49]

3.34 Therefore, we are also proposing that all technologies would be covered fully by the codes. For the first time, cable will be subject to the speed estimate and right to exit requirements, and providers offering FTTP services can become signatories.[50]

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[48] As noted in Section 2, our review of after-sale information found that although information about the right to exit was generally present, it could have been more clearly linked to the minimum guaranteed speed and, in some instances, we considered that a lack of prominence may have had an impact on customer awareness of this measure.

[49] See pages 11 and 12 of Ofcom UK Home Broadband Performance April 2017

[50] This is because the proposed test methodology incorporates the effects of contention at peak time, which could affect broadband delivered over FTTP networks.

3.35 We are, however, proposing a different approach for calculating the minimum guaranteed speed for cable and FTTP services. We propose that this is at least 50% of the advertised speed of the broadband package. This difference in approach compared to DSL networks, reflects the fact that cable and FTTP networks can invest more easily to increase speeds. We want to ensure that customers are protected where speeds fall significantly below expectations, while still encouraging ISPs to invest in their networks.[51]

Customer guide

3.36 Ofcom intends to publish a customer guide to the codes, which aims to drive customer awareness of what they can expect from signatories. We are proposing that ISPs provide the URL of this guide in their after-sale information. This will help to inform customers about what they can expect from signatories, as well as empowering them to use the right to exit process if they have concerns about their speeds.

[51] See paragraph A1.14.

4. Implementation and consultation questions

Implementation of revised codes

4.1 At the point of publication, Ofcom will provide the date by which the codes should be implemented in full by those providers who wish to remain (or become) signatories. We will consider, in discussion with signatories, how long the implementation period should be.

4.2 Upon implementation, the revised codes will apply for all purchases of new broadband services, including upgrades and downgrades.

Treatment of existing customers

4.3 For existing customer contracts, the relevant sections of the current codes (i.e. the right to exit) will still apply for the minimum term of that contract.

4.4 If, when this term comes to an end, the customer chooses to renew their existing contract (including where their contract is renewed automatically), we propose that they should be provided with after-sale information that includes new speed estimates, based on the measures outlined in the revised codes. From this point, they would also be subject to the right to exit provisions in the revised codes as well as all other requirements in the codes (excluding those relating to the provision of information at point of sale).

Consultation questions

4.5 Do you have any comments on the proposed changes to the codes, as outlined in this consultation document (including Annex 1)? Please provide reasons for your response. In particular:

a) Do you agree that the codes should require the provision of speed estimates that reflect peak-time network congestion?

b) Do you agree that the minimum guaranteed speed should always be given to customers at point of sale?

c) Do you agree that, where a customer's speed falls below the minimum guaranteed level, there should be a limit on the length of time providers have to fix the problem before offering the right to exit? Do you agree that the limit should be 30 calendar days?

d) Do you agree that the right to exit should also apply to a landline service sold over the same line, and to pay-TV services purchased at the same time, as the broadband service?

e) Do you agree that the codes should be capable of being applied in full to all standard fixed broadband technologies, including cable and FTTP?

f) How long do you consider that signatories should be given to implement the proposed changes following publication of the final version of the codes?

4.6 We are consulting for a period of five weeks, reflecting the extensive engagement we have had with key stakeholders throughout the review, in particular the current signatories to the codes. We have sought to make the consultation document as short and simple as possible, though the summary is slightly longer than the two pages set out in our consultation principles (Annex A4). This enables the summary to explain the background and context so that it can be read on a standalone basis. This consultation closes at **5pm on 10 November 2017** and Ofcom plans to publish the final version of the revised codes in early 2018.

A1. Proposed improvements

A1.1 In this section, we outline the substantive revisions that we are proposing to make to the codes. These fall in the following areas:

a) Information at point of sale

b) After-sale information

c) Managing speed problems

d) The right to exit

e) The scope of the new codes

f) Monitoring the codes

Information at the point of sale

A1.2 Under the revised codes, we are proposing that improved speed estimates are provided at point of sale. These are referred to as the normally available download speed, the minimum guaranteed speed, and the normally available upload speed.

A1.3 We are also proposing that the minimum guaranteed speed is always provided at point of sale, and that additional information on the speeds that are needed for particular tasks be included as part of the online sales processes.

Normally available download speed

A1.4 Under the current codes, signatories have to provide an estimate of the access line speed of the lines of similar customers at point of sale. This reflects the impact of the customers' line length on the speed they are likely to receive.

A1.5 We are proposing that the speed estimate should also reflect peak time contention, and refer to this as the **'normally available'** download speed. Peak time for residential customers is 8 – 10pm and for business customers it is 12 – 2pm.

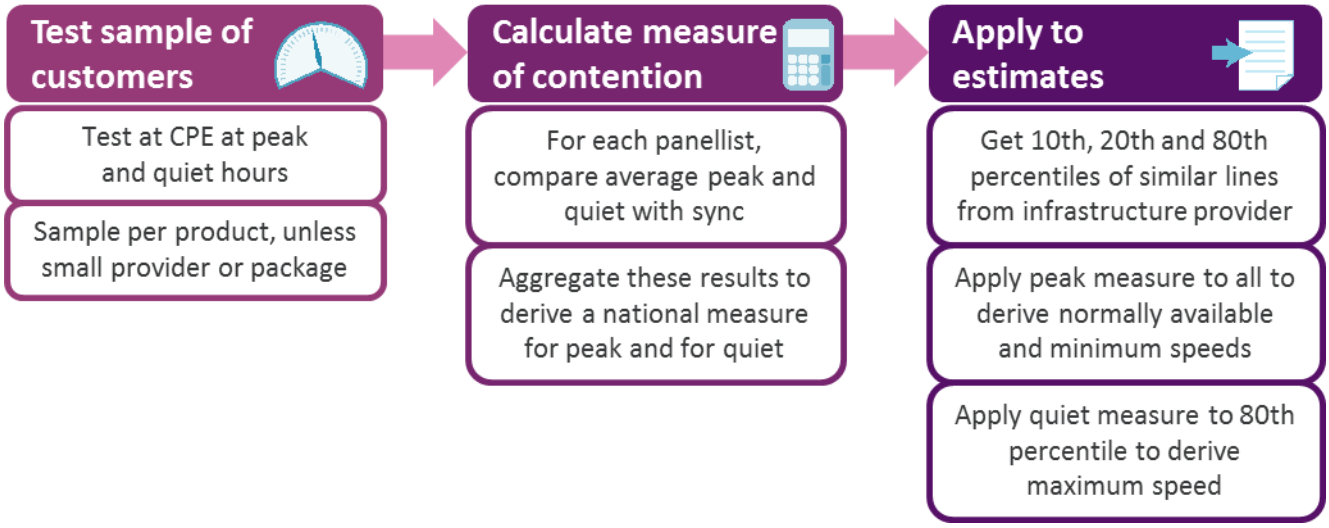
A1.6 To deliver normally available speed estimates based on peak time speeds, signatories will be required to test the actual speeds of a statistically meaningful panel of customers on each broadband package during peak time. This testing will measure the speed from the router[52] (also known as the Customer Premises Equipment (CPE)) to the edge of the ISP's network where it connects to the internet.[53]

[52] Using either software on the router itself, or an external device connected to the router

[53] It will not take account of in-home factors such as the impact of Wi-Fi, wiring conditions in the customer's premises, or the device the customer is using to access internet services. This is because these factors are outside of the control of the ISP; it is also not currently possible to take such factors into account in speed estimates provided before the service is up and running. Nonetheless, customers will be provided with advice on the impact of these factors and how to address any in-premises speed problems.

A1.7 How these estimates are derived will differ depending on the technology in use. For **DSL technologies**, the actual speed measured at the CPE during peak time will be compared to the participants' access line speed to determine the average impact of contention (see Figure 1). The results of the whole sample will then be used to produce a national average for that product.

Figure 2: Diagram of how actual speeds should be used to derive speed estimates for DSL technologies



A1.8 We note that where a broadband service is already being provided at the address in question, the actual speed of that line could be made available. The actual speed is likely to be a better measure of the speed that a future customer would receive. We are aware that industry is discussing how these metrics could be used as the basis of "estimates" for new providers and would encourage them to complete this work as soon as possible. The codes include a provision for the potential adoption of such an approach. Any further changes to adopt this approach more fully would be made in consultation with signatories and applicants to the codes.

A1.9 For **cable and FTTP technologies**, we propose that a sample of customers for each product is tested at peak time to determine their speed at the CPE. When a prospective customer asks about their likely speed, their normally available speed range will be drawn directly from the 20th-80th percentiles of the sample group at peak time, for the same broadband package and provider.

A1.10 The revised codes include an annex that sets out the proposed high-level testing principles that should be used to prepare speed estimates. In particular, we are proposing that testing takes place at a **national level**[54]**:**

a) While ISPs using DSL technology could test more locally (to determine the effects of contention at each exchange), the test sample needed to achieve this would be so large that it would be disproportionate[55] and could, in itself, increase congestion and reduce speeds.

b) For cable, testing at a very local level (i.e. the cable loop serving a few hundred houses), would require a very large sample but, as with DSL, this would be disproportionate and could increase congestion and reduce customers' speeds. The next level within the cable network is CMTS (the equivalent of a DSL exchange**).** Virgin Media has provided us with evidence that the variation in performance across CMTS will fall significantly once an equipment upgrade programme has been completed by the end of this year. Therefore, there appears to be limited benefit in testing at this level compared with the costs that would be incurred. This is, however, something that we will be monitoring further.

c) For FTTP, we understand there is currently negligible network contention. In addition, the low level of take-up at present would requires broader rather than narrower geographic sampling. We are therefore proposing that speeds should also be tested at a national level.

A1.11 We expect to update the high-level testing principles to take into account any new developments in generating speed estimates as appropriate.

Minimum guaranteed speed

A1.12 Under the current codes, signatories only need to provide a minimum guaranteed speed at the point of sale if it is requested. We are proposing that the minimum guaranteed download speed should always be given to customers at the point of sale.

A1.13 To estimate the minimum guaranteed speed for **DSL services**, we propose that the current threshold for the minimum guaranteed speed for DSL services of the 10th percentile of customers on similar lines[56] is retained, but adjusted to reflect peak time contention as set out for normally available download speed estimate.

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[54] We currently consider that the national level is appropriate for DSL, cable and FTTP. However, we will continue to monitor whether this continues to be effective and will amend it if necessary. In addition, we will consider what testing level would be most appropriate for other technologies, such as fixed wireless.

[55] As the key driver in speed degradation for those technologies is the line characteristics rather than network contention, there would be limited benefits from moving to more local measuring but costs would increase significantly.

[56] The 10% threshold provides an incentive to signatories not to overestimate the access line speed received by customers. During discussions changing the basis on which the threshold is calculated would represent a burden for current signatories

A1.14 For **cable and FTTP,** however, we propose that a different approach is taken. For these technologies, the speed received by the customer is not dependent on the length of the line and is instead primarily affected by the degree of network contention. This is something that the ISP can improve through investment. However, if the same threshold were adopted as that used for DSL technologies, 10% of customers would still always be eligible to exit their contract without penalty, whatever speed improvements the ISP achieves via investment. This is in contrast to ISPs using DSL technologies, because speed on DSL networks will always degrade with the length and/or quality of the line, so some customers will always have slower speeds.[57]

A1.15 Therefore, for technologies where speed degradation is not affected by the length of the connection, we propose that the minimum guaranteed download speed should be **at least 50% of the advertised speed of the package**. We consider that this would protect those customers who receive speeds significantly below expectations, , while still encouraging ISPs to invest in improving their networks.

Normally available upload speed

A1.16 Upload speeds are currently required to be given to business customers under the Business Code, but not to residential customers under the Residential Code.

A1.17 We recognise that upload speeds are becoming more important, due to the increasing use of online storage and interactive services.[58] However, we also appreciate that for many consumers, this information may not yet be sufficiently meaningful to justify its inclusion in every sales process.[59] In particular, we are concerned that adding another speed metric at the point of sale may be confusing for some customers.

A1.18 We therefore propose that, for residential services, the normally available upload speed should be included in the speed estimates given as part of the website sales process and, for other sales channels, available if requested by the customer. This speed estimate will be calculated in the same way as the normally available download speed, incorporating peak time speed measurements from actual customers.

A1.19 For business services, we propose to continue with the approach in the current Business Code, in which the upload speed is given in every sales journey, regardless of channel used.

[57] There will always be a distribution of speeds across lines for DSL services. As a significant proportion of speed degradation is caused by the length and quality of the line, there is a limit to which the speed of individual lines can be improved.
[58] For instance, 44% of consumers used the internet to make voice or video calls using a voice-over-IP (VoIP) services, and 30% to upload or add content to the internet. Figure 5.20, Ofcom, Communications Market Report , 3 August 2017.
[59] Particularly those conducted in person by a sales agent where the consumer may find it more difficult to retain the information.

Speeds needed for common activities

A1.20 From the ASA research, we understand that some customers are not familiar with the speeds required to carry out common online tasks, and we consider that this could limit their ability to choose a suitable service for their needs.

A1.21 We therefore propose that where a customer buys broadband service online, (or requests such information when using other sales channels), they are provided with information about the speeds needed for tasks such as streaming, browsing, and using email. This could be provided as a webpage on the provider's site.[60]

How speeds information might be presented to online customers

A1.22 Figure 2 illustrates how speed estimates, and other contextual information, might be presented to online customers at point of sale.

Figure 3: Example of how speed estimates and information might be provided during the online sales journey

Your speed estimates for postcode XX1 YY2

*Estimated download speed range**

39.2Mbps to 54.3Mbps

*Minimum guaranteed download speed***

35Mbps

Estimated upload speed

8.8Mbps to 13.4Mbps

* 60% of people with lines like yours will get a speed in this range during peak time (8pm to 10pm, when the network use is highest). The speed you receive can be affected by several factors, including how strong your wifi signal is, the device you are using to access the internet, and the number of people using the line at the same time. To find out what speeds you need for common activities, check out our guide here.

** If your speed drops below this point, even if it's just during peak hours, let us know! If it's an ongoing problem we will try to fix it. If it's our fault and we can't improve your speed to above this point within 30 days of you reporting the problem, you can leave your contract with no penalty (although we will ask you to return the Hub we lent you). You can read more about this process, including how to measure your speed, here.

[60] Examples of typical speeds needed for common usage of broadband can be found on the Ofcom website, see pages 14-16 here: Ofcom Mobile and Broadband Checker White Paper December 2016

Improving after-sale information

A1.23 We are proposing a number of changes to the information that signatories are required to provide after a sale has taken place. These include changes to the speed estimates that need to be provided, to the information provided on the right to exit and to link to a new consumer guide that Ofcom will prepare.

Speed estimates

A1.24 The Open Internet Access Regulation (EU Regulation) Regulations 2016, (the Regulation), which came into force on 30 April 2016, requires that contracts for fixed broadband services contain a number of speed measures. In line with our aim to reflect these requirements in the codes, we propose that all of these estimates should be provided in after-sale information (e.g. a welcome pack). Signatories must ensure that this information is incorporated into the contract for the provision of the relevant services to the customer, in a legally enforceable way.

A1.25 The speeds required by the Regulation, and the corresponding measures we are proposing in the codes, are as follows:

a) **Minimum speed**. We propose that the minimum speeds included in after-sale information are the minimum guaranteed download speed outlined above, and the minimum upload speed, would be derived in the same way as the minimum download speed, accounting for contention. For the avoidance of doubt, we do not intend the minimum upload speed to carry any 'guarantee' linked to the right to exit.

b) **Maximum speed.** We propose that the maximum upload or download speed should be based on the 80th percentile of similar customers. This should reflect network performance during the quietest hour or when the sampled customers achieve their highest speeds. We propose using the 80th percentile for two reasons. First, as this measure is intended to indicate the potential maximum speed of the customer's line, it is appropriate to set the metric at a relatively high level. Second, the 80th percentile of similar lines is already a measure that DSL providers have access to and which their systems can capture and process; and which will also need to be prepared for cable and FTTP services under the new codes.

c) Normally available speeds. These would be the same measures as outlined for the normally available upload and download speeds above.

d) **Advertised speed.** Where a broadband product has an advertised upload and/or download speed,[61] they should be included in after-sale information. CAP is currently undertaking work to determine how ISPs should calculate headline speed claims for their broadband services in a manner that will not mislead consumers. The codes will provide a link to CAP guidance.

The right to exit

A1.26 To increase customer awareness and understanding, we propose changes to the codes to ensure that the right to exit is explained more clearly, displayed more prominently, and for explicit reference to be made to the minimum guaranteed download speed.

Customer information

A1.27 Ofcom intends to publish a customer guide to the codes when they are finalized, to improve customer awareness of what they can expect from signatories. To promote this and to help customers understand the information given by the ISP, we propose that their after-sale information should include the URL of this guide.

Managing speed problems

A1.28 Under the current codes, signatories are required to assist customers with their speed problems, whether or not the problem is caused by the network. This may include, for example, providing advice to customers about how to position their router for optimal wifi performance and explaining that faster speed may be delivered to devices with a wired connection to the router.

A1.29 We consider that the requirement to provide such advice to customers is an important part of helping them to get the most out of their broadband service, thereby ensuring that their experience is as close as possible to their expectations.

A1.30 This requirement has been retained and the steps that ISPs must take in the event of a reported speed problem have been more clearly stated in the proposed revision.

The right to exit

A1.31 The right to exit is a safeguard against the inherent variation and unpredictability of broadband speeds and, where applicable, affords consumers a route to redress.

A1.32 On the basis of the information provided by signatories to the Residential Code, we understand that customer take-up of the right to exit is low. There are a number of potential reasons for this, including:

a) low customer awareness of the right to exit;

[61] For instance, a higher-tier FTTC package may have an advertised download speed of 76Mbps.

b) problems with the right to exit process; and

c) the lack of a right to exit for related services (e.g. phone and pay-TV).

A1.33 The proposed revisions to the codes seek to address these potential issues. They also clarify that customers should be reimbursed for upfront changes where applicable, as set out below.

A1.34 It is also possible that customers may not choose to take up the right to exit because there is no better service available to switch to at their location. The codes do not, however, aim to improve the availability of services, rather, they aim to improve information on existing services.[62]

Raising customer awareness of the right to exit

A1.35 Customers may not take up the right to exit because they are not aware of it. As mentioned above, we aim to increase consumer awareness by requiring signatories to give information on the minimum guaranteed speed at point of sale. We also propose that the codes clarify that providers clearly explain that right to exit applies where their speed is below the minimum guaranteed speed.

Improving the right to exit process

A1.36 To improve customers' ability to follow the right to exit process, we have proposed a number of changes that should strengthen the process.

i) First, a **time limit of 30 calendar days** will apply to the signatory's attempts to fix the reported speed problem, applicable from the day the problem is first reported by the customer. This will provide clarity for the customer and help ensure that problems are dealt with swiftly. The codes will allow for extensions in exceptional circumstances[63] or because of factors caused by the customer, such as a customer repeatedly cancelling appointments.

ii) Second, the codes now provide a more objective measure of what triggers the right to exit process by specifying that providers must allow customers to exit contracts without penalty if their actual download speed falls below the minimum guaranteed download speed **for at least three successive days** (whether continuously or intermittently) after reporting the speed problem.

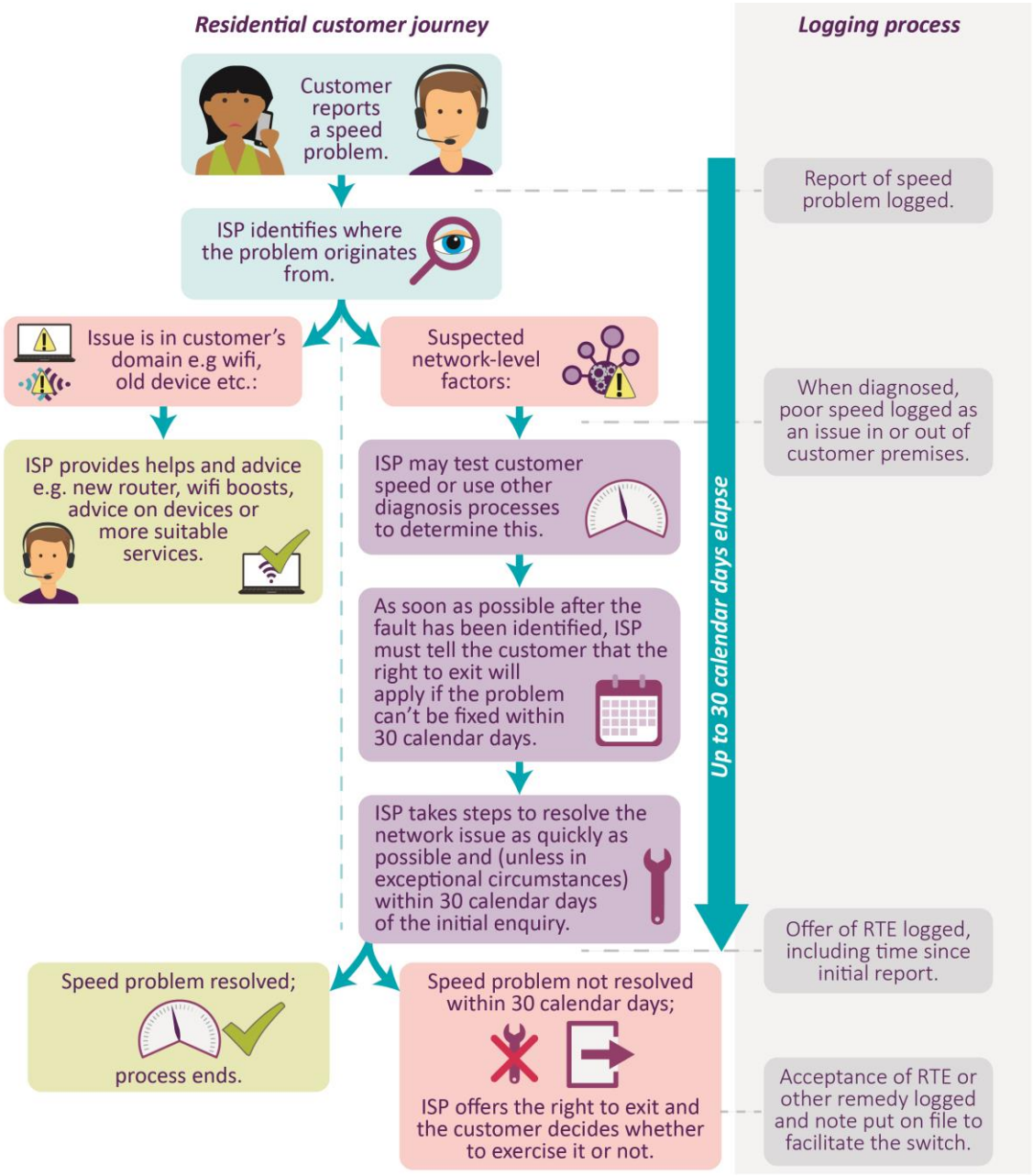
[62] However, we note there are a number of initiatives from Ofcom, industry and the Government to improve the availability of good quality broadband. These include Ofcom's plans to open up and improve access to Openreach's ducts and poles and apply appropriate price controls to BT's regulated access network products, to create the opportunity for all operators to deploy their own fibre networks. We also plan to promote competition in fixed line services by strengthening Openreach's strategic and operational independence from BT. See Ofcom, Annual Plan 2017 -2018

[63] These would be very unusual circumstances that fall outside the ISP's control or responsibility, such as the need to obtain planning permission to carry out work to fix the problem. It would not include management issues such as staff or equipment shortages.

iii) Third, the codes have been revised to provide more clarity for signatories (including a diagram of the process) to enable them to be confident that they are delivering the process correctly as well as supporting customers using the codes to understand how the process works.

iv) Fourth, we have proposed amendments to improve the process for eligible customers who have accepted the right to exit and go on to use the 'gaining-provider led' process to switch to a new provider. ISPs would be required to place a note on the customer's file when that customer accepts the right to exit to help ensure that the existing ISP does not inadvertently apply early termination charges or other penalties to that customer's account when the switch takes place.

Figure 4: Flowchart of the right to exit process for residential service customers



Applying the right to exit to related residential services

A1.37 Many residential consumers purchase a broadband service alongside a landline and/or pay TV service from the same provider.[64] They may choose to buy these services together because they consider this to be more convenient, or because the combined price is lower than those available when purchasing the same services on a stand-alone basis.

A1.38 For these customers, being released from the broadband but not the landline and pay-TV services in their contract may make switching to a new provider unattractive and mean that they are unwilling to take up the right to exit. This may be the case if, for example:

a) switching only the broadband part of the bundle leads to an increase in price for the remaining landline and /or pay-TV services;

b) switching provider for the whole bundle of services leads to early termination charges relating to landline and/or pay-TV services; or

A1.39 This is likely to be particularly the case for landline services, where being released from the broadband service but not the landline would leave the customer in a position of needing to find a broadband-only service, which is uncommon in the market.[65]

A1.40 In addition, there are some services that can only be provided over a broadband service with the same provider (dependent services). Therefore, if the broadband service stops, the customer cannot continue to receive the dependent service. For example, some pay-TV services require the customer to take broadband from the same provider.

A1.41 We have therefore proposed that the right to exit should be extended to landline services and dependent services in all circumstances, and to pay-TV services that are purchased or re-contracted at the same time as the broadband service is purchased or re-contracted.

A1.42 Where it is practically possible to do so, the revised Residential Code proposes that customers can exercise their right to exit from a broadband contract and still continue to receive other communications services from the same provider, should they wish to do so. It also proposes to enable them to exercise their right to exit from some related services but not others (e.g. by exercising their right to exit from broadband and phone, while retaining their pay-TV service).

A1.43 The aim of this approach is to ensure that customers are not discouraged from exercising their right to exit, on the basis that they are not able to exercise that right for all the

[64] 67% of customers purchase either phone and broadband or phone, broadband and TV packages. The Communications Market Report 2017, p11 https://www.ofcom.org.uk/__data/assets/pdf_file/0017/105074/cmr-2017-uk.pdf

[65] In Ofcom's *Review of the market for the standalone landline telephone services*, February 2017, we noted that relative to those who purchase services in a bundle, consumers who purchase phone services on a standalone basis have less choice of suppliers, are not benefiting from strong price competition or promotional offers and their loyalty to their suppliers is leading to ever higher prices. https://www.ofcom.org.uk/__data/assets/pdf_file/0030/97806/Consultation-Review-of-the-market-for-standalone-landline-telephone-services.pdf

elements of their package. Eliminating such obstacles, actual or perceived, to the exercise of the right to exit aims to improve its effectiveness.

A1.44 We are currently not proposing to extend the right to exit to mobile phone contracts taken up alongside broadband services. The 2017 Communications Market Review indicates that only a small minority of customers purchase these packages[66]. Therefore, it is likely that few broadband customers would be unwilling to take-up the right to exit if they had to purchase their mobile separately. However, we will continue to monitor the take-up of such services, and will review the code's requirements should it be warranted.

A1.45 For the avoidance of doubt, the above proposed changes apply only to the Residential Code; the Business Code remains unchanged in this regard because product packages intended for business use are sold differently to those for residential customers and we are satisfied that the current approach provides suitable protections for business customers.

Other charges

A1.46 Although we were informed that Early Termination Charges (ETCs) were being waived as required under the Codes, we were concerned that some customers may have paid up-front fees for aspects such as line rental and would not receive a refund when exercising the right to exit. We propose clarifying that the requirement to release a customer from the contract immediately and *without penalty* extends to upfront charges as well as ETCs. Therefore

A1.47 We also propose clarifying that ISPs may require the customer to return its CPE (e.g. modem), provided that the ISP bears the cost of postage. If a customer fails to return equipment within a reasonable time limit the ISP is entitled to charge the customer a reasonable amount, reflecting the cost of the equipment and taking into account depreciation in the value of the equipment.

The scope of the new codes

A1.48 The current codes only apply in full to providers of DSL services. This is because at present, speed estimates only need to reflect the reduction in speed caused by line length.

A1.49 The revised codes would require speed estimates to also reflect peak-time contention, which affects all networks. Therefore, our proposed changes would ensure that all technologies would be covered by all the code requirements, including cable and FTTP.

A1.50 The revised codes also set out that parts of the codes will apply to customers **renewing their existing contract (including when this is done automatically).**[67] This means that, for example, customers whose original contract started under the current codes would, when

[66] https://www.ofcom.org.uk/__data/assets/pdf_file/0017/105074/cmr-2017-uk.pdf p11: fewer than 3% of households reported taking a package that included mobile

[67] See paragraph 2.29 of the Residential Code and paragraph 1.10 of the Business Code.

they renew their contract, receive the same after-sale speeds information as new customers receive under the revised codes.

Monitoring compliance with the codes

A1.51 In addition to monitoring the codes by carrying out mystery shopping, we would also periodically monitor:

a) the approach ISPs use to test speeds and prepare speed estimates; and

b) the speed estimates themselves, including by assessing whether the figures are consistent with the results of other relevant data, such as the *Home Broadband Performance* Report panel results and the *Connected Nations* data.

A1.52 In addition, we are proposing that signatories collect information on customer speed problems and the extent to which they offer the right to exit.

A2. Glossary

A2.1 **Access line speed** or **sync speed** – This refers to the speed of the data connection between the broadband modem and the local exchange or cable head end. This constitutes the maximum speed a customer will be able to experience on his/her individual line.

A2.2 **Actual speed** – This is the actual speed that a customer experiences at a particular time when they are connected to the internet. This figure is often dependent on factors such as the ISP's network, its traffic shaping and management policy, the number of subscribers sharing the network and the number of people accessing a particular website at a particular time.

A2.3 **ADSL -** Asymmetric digital subscriber line. A digital technology that allows the use of a standard telephone line to provide high speed data communications. Allows higher speeds in one direction (towards the customer) than the other.

A2.4 **Advertised (or headline) speed** – The speed at which broadband services are typically marketed, usually expressed as 'up to' xMbit/s (megabits per second). This speed will usually be calculated in a manner recommended by the Committees of Advertising Practice (CAP).

A2.5 **Cable** – Sometimes referred to as Hybrid Fibre Coaxial (HFC) networks, cable networks combine optical fibre and coaxial cable (a cable made up of a conductor and a tubular insulating layer) to carry TV and broadband signals to end-users.

A2.6 **Contention** – A slowdown in performance caused when multiple users share the same bandwidth within a network and the bandwidth available is less than the aggregate demand. This is the sharing of bandwidth (the amount of data that can be transmitted in a fixed amount of time) within a network by multiple users where the bandwidth available is less than the aggregate demand i.e., where there is higher demand for the service than it is able to provide, leading to less available bandwidth per user and, therefore, slower speeds. This is most commonly experienced during the evening peak time.

A2.7 **Customer Premises Equipment (CPE)** – Also known as customer equipment or customer apparatus. Equipment on customers' premises, which is not part of the public telecommunications network and which is directly or indirectly attached to it.

A2.8 **DSL** – Digital subscriber line. A family of technologies generally referred to as DSL, or xDSL, capable of transforming ordinary phone lines (also known as 'twisted copper pairs') into highspeed digital lines, capable of supporting advanced services such as fast internet access and video on demand. ADSL, HDSL (high data rate digital subscriber line) and FTTC (very high data rate digital subscriber line) are all variants of xDSL).

A2.9 **Download speed** – Also downlink or downstream speed. Rate of data transmission to a customer's connection from a network operator's access node, typically measured in Mbits/s

A2.10 **Fixed wireless access** (**FWA**) - An access service where the connection between the network and the equipment located at the customer premises is provided over the radio access medium

A2.11 **FTTC** (or **Fibre to the Cabinet**) – An access network structure in which the optical fibre extends from the exchange to a street cabinet. The street cabinet is usually located only a few hundred metres from the subscriber's premises. The remaining part of the access network from the cabinet to the customer is usually copper wire but could use another technology, such as wireless.

A2.12 **FTTP** (or **Fibre to the Premises**) – An access network structure in which the optical fibre network runs from the local exchange to the customer's house or business premises. The optical fibre may be point-to-point – there is one dedicated fibre connection for each home – or may use a shared infrastructure such as a GPON. Sometimes also referred to as Fibre to the home (FTTH), or full-fibre.

A2.13 **Satellite** – Satellite broadband is a data service where satellites are used to provide the wireless data connectivity. A satellite dish at the customer's premises connects to a geostationary satellite and transmits signals through the air.

A2.14 **Upload speed** - Also uplink or upstream speed. Rate of data transmission from a customer's connection to a network operator's access node, typically measured in Megabits per second (Mbit/s).

A2.15 **Wifi** – A short range wireless access technology that allows devices to connect to the internet. These technologies allow an over-the-air connection between a wireless client and a base station or between two wireless clients.

A3. Responding to this consultation

How to respond

A3.1 Ofcom would like to receive views and comments on the issues raised in this document, by 5pm on 10 November 2017.

A3.2 We strongly prefer to receive responses via the online form at https://www.ofcom.org.uk/consultations-and-statements/category-1/broadband-speeds-codes-practice. We also provide a cover sheet https://www.ofcom.org.uk/consultations-and-statements/consultation-response-coversheet) for responses sent by email or post; please fill this in, as it helps us to maintain your confidentiality, and speeds up our work You do not need to do this if you respond using the online form.

A3.3 If your response is a large file, or has supporting charts, tables or other data, please email it to broadband.speeds@ofcom.org.uk, as an attachment in Microsoft Word format, together with the cover sheet (https://www.ofcom.org.uk/consultations-and-statements/consultation-response-coversheet).

A3.4 Responses may alternatively be posted to the address below, marked with the title of the consultation:

Celia Pontin
Ofcom
Riverside House
2A Southwark Bridge Road
London SE1 9HA

A3.5 If you would like to submit your response in an alternative format (e.g.a video or audio file), please contact Celia Pontin on 020 7783 4170, or email celia.pontin@ofcom.org.uk

A3.6 We do not need a paper copy of your response as well as an electronic version. We will acknowledge receipt if your response is submitted via the online web form, but not otherwise.

A3.7 We also welcome joint responses.

A3.8 It would be helpful if your response could include direct answers to the questions asked in the consultation document. The questions are listed at Annex 5. It would also help if you could explain why you hold your views, and what you think the effect of Ofcom's proposals would be.

A3.9 If you want to discuss the issues and questions raised in this consultation, please contact Celia Pontin on 020 7783 4170, or email celia.pontin@ofcom.org.uk.

Confidentiality

A3.10 Consultations are more effective if we publish the responses before the consultation period closes. In particular, this can help people and organisations with limited resources or familiarity with the issues to respond in a more informed way. So, in the interests of transparency and good regulatory practice, and because we believe it is important that everyone who is interested in an issue can see other respondents' views, we usually publish all responses on our website, www.ofcom.org.uk, as soon as we receive them.

A3.11 If you think your response should be kept confidential, please specify which part(s) this applies to, and explain why. Please send any confidential sections as a separate annex. If you want your name, address, other contact details or job title to remain confidential, please provide them only in the cover sheet, so that we don't have to edit your response.

A3.12 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and try to respect it. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.

A3.13 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's intellectual property rights are explained further at https://www.ofcom.org.uk/about-ofcom/website/terms-of-use.

Next steps

A3.14 Following this consultation period, Ofcom plans to publish a statement at the beginning of next year.

A3.15 If you wish, you can register to receive mail updates alerting you to new Ofcom publications; for more details please see https://www.ofcom.org.uk/about-ofcom/latest/email-updates

Ofcom's consultation processes

A3.16 Ofcom aims to make responding to a consultation as easy as possible. For more information, please see our consultation principles in Annex x.

A3.17 If you have any comments or suggestions on how we manage our consultations, please email us at consult@ofcom.org.uk. We particularly welcome ideas on how Ofcom could more effectively seek the views of groups or individuals, such as small businesses and residential consumers, who are less likely to give their opinions through a formal consultation.

A3.18 If you would like to discuss these issues, or Ofcom's consultation processes more generally, please contact Steve Gettings, Ofcom's consultation champion:

Steve Gettings
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA
Email: corporationsecretary@ofcom.org.uk

A4. Ofcom's consultation principles

Ofcom has seven principles that it follows for every public written consultation:

Before the consultation

A4.1 Wherever possible, we will hold informal talks with people and organisations before announcing a big consultation, to find out whether we are thinking along the right lines. If we do not have enough time to do this, we will hold an open meeting to explain our proposals, shortly after announcing the consultation.

During the consultation

A4.2 We will be clear about whom we are consulting, why, on what questions and for how long.

A4.3 We will make the consultation document as short and simple as possible, with a summary of no more than two pages. We will try to make it as easy as possible for people to give us a written response. If the consultation is complicated, we may provide a short Plain English / Cymraeg Clir guide, to help smaller organisations or individuals who would not otherwise be able to spare the time to share their views.

A4.4 We will consult for up to ten weeks, depending on the potential impact of our proposals.

A4.5 A person within Ofcom will be in charge of making sure we follow our own guidelines and aim to reach the largest possible number of people and organisations who may be interested in the outcome of our decisions. Ofcom's Consultation Champion is the main person to contact if you have views on the way we run our consultations.

A4.6 If we are not able to follow any of these seven principles, we will explain why.

After the consultation

A4.7 We think it is important that everyone who is interested in an issue can see other people's views, so we usually publish all the responses on our website as soon as we receive them. After the consultation we will make our decisions and publish a statement explaining what we are going to do, and why, showing how respondents' views helped to shape these decisions.

A5. Consultation coversheet

BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing ☐

Name/contact details/job title ☐

Whole response ☐

Organisation ☐

Part of the response ☐

If there is no separate annex, which parts? _____

_____

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Name Signed (if hard copy)

A6. Consultation questions

4.7 Do you have any comments on the proposed changes to the codes, as outlined in this consultation document (including Annex 1)? Please provide reasons for your response. In particular:

a) Do you agree that the codes should require the provision of speed estimates that reflect peak-time network congestion?

b) Do you agree that the minimum guaranteed speed should always be given to customers at point of sale?

c) Do you agree that, where a customer's speed falls below the minimum guaranteed level, there should be a limit on the length of time providers have to fix the problem before offering the right to exit? Do you agree that the limit should be 30 calendar days?

d) Do you agree that the right to exit should also apply to a landline service sold over the same line, and to pay-TV services purchased at the same time, as the broadband service?

e) Do you agree that the codes should be capable of being applied in full to all standard fixed broadband technologies, including cable and FTTP?

f) How long do you consider that signatories should be given to implement the proposed changes following publication of the final version of the codes?