OPEN INTERNET CODE OF PRACTICE

VOLUNTARY CODE OF PRACTICE SUPPORTING ACCESS TO THE OPEN INTERNET AND TRANSPARENCY OF TRAFFIC MANAGEMENT PRACTICES

The definition of the Open Internet in the UK has been shaped by three principles set out by the Culture and Digital Economy Minister Ed Vaizey MP:

- Users should be able to access all lawful content
- There should be no discrimination against content providers on the basis of commercial rivalry; and
- Traffic management policies should be clear and transparent

For networks to operate efficiently and to provide the best quality of experience for consumers, traffic management policies have been put in place by Internet Service Providers (ISPs). In practice, this means that providers will under conditions, give priority to some types of traffic over others. However, justified concerns have been raised with regard to traffic management practices being deployed and having a negative impact on consumers' ability to access content.

Therefore, in 2011, ISPs and Mobile Network Operators (accounting for more than 90% of fixed and mobile connections) signed the Broadband Stakeholder Group Traffic Management Transparency Code committing themselves to ensuring that traffic management policies were transparent and comparable. Building on this, the BSG published the Open Internet Code of Practice in 2012, in which signatories committed to not using traffic management practices to degrade the services of a competitor.

Ofcom has supported industry self-regulation in this area, in line with its November 2011 position statement on its approach to net neutrality[1].

Following the adoption of the Connected Continent Regulation (2015/2120/EU)[2], the BSG launched in 2015 a review of the Open Internet and Traffic Management Codes to assess their effectiveness, and the possible improvements that could be made to the benefit of consumers, and content and service providers in light of new market developments. An assessment[3] undertaken by consultancy WIK (November 2015) demonstrated that the UK's approach to the Open Internet since the inception of the Codes has proven to be effective; negative discrimination of content and services could not be identified and no official complaint was submitted.

WIK also found that the Commitments set out in the Codes continue to be relevant in the context of the UK market, and that the Open Internet Forum is a useful platform to allow stakeholders to exchange views or resolve issues effectively.

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[1] http://stakeholders.ofcom.org.uk/binaries/consultations/net-neutrality/statement/statement.pdf Ofcom recognised that traffic management produced positive outcomes whilst highlighting the potential for undesirable outcomes such as the targeting of specific services on the basis of commercial rivalry. Ofcom also recognised the potential for traffic management tools to support new innovative services, whilst noting the importance of preserving best efforts internet access.

[2] Thereafter "the EU Regulation"

[3] Review of the Open Internet Codes (WIK report) - http://www.broadbanduk.org/wp-content/uploads/2015/11/WIK-Review-of-the-Open-Internet-Codes-November-15.pdf

The EU Regulation sets the rules on how to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access, and these rules are of direct application to internet access providers in the EU. The Open Internet Forum, Government and Regulator found that maintaining an Open Internet Code of Practice was relevant, adding value to the requirements laid out in the Regulation.

Following discussions with the Open Internet Forum (including Government, Regulator Ofcom and broader stakeholders), the two Codes were merged into one and Commitments updated in light of the newly-adopted EU Connected Continent Regulation.

The Open Internet Code of Practice

Signatories to this Code agree to make the following Commitments regarding access to lawful services, and supporting traffic management transparency for Internet Access Services. These are rooted in practical Commitments that individual Internet Service Providers are able to make.

These Commitments should be read in accordance with the following explanatory section regarding their application in practice.

1. **Signatories to this Code support the concept of the Open Internet as the norm and the principle that users have the right to access lawful content, applications and services, or categories thereof, via their internet access service.**

2. **Signatories to this Code recognise the positive impact some forms of discrimination can have in supporting innovation and choice, and are free to develop and offer services other than internet access services, optimised to relevant users' needs.**

    Signatories agree that such services will only be offered where there is sufficient network capacity to result in no detriment to the availability or general quality of internet access services and will not be offered as replacement to them.

3. **When providing internet access services, signatories may deploy reasonable traffic management measures based on objectively different technical quality of service requirements of specific categories of traffic.**

    In recognising however that some forms of discrimination may be harmful, signatories agree that traffic management should be transparent, non-discriminatory, and proportionate and should not be maintained for longer than necessary.

4. **Signatories agree to provide clear and transparent traffic management policies to users by making available information on how these practices affect users' experience for different types of internet access services, their broadband products and their usages caps or upload/download limits.**

    In doing so, signatories commit to publishing a Key Facts Indicator (KFI) table, in relation to their Internet access services.

    Users should also be informed of changes made to traffic management practices that would have a significant impact on their broadband products.

What these Commitments mean in practice

Commitment 1 – Support for an Open Internet

Commitment 1 means that all signatories to this Code will ensure that products that support full internet access, i.e. services that permit a user to access any content, applications and/or service(s) that are lawfully available on the internet are the norm within their portfolio of products. Under Commitment 1, full internet access is provided subject to exceptions set out in the EU Regulation and in this Code.

Commitment 2 – Offering non internet access services under certain conditions

In order to support product differentiation and consumer choice, ISPs retain the ability to offer managed services and alternative services. Where managed services or alternative services are offered, the term "internet access" will not be used to describe or market such services.
Alternative services are neither full internet access nor managed services, and may or may not require optimisation, but they do not provide access to all end points of the internet. Currently envisaged alternative services may include Internet of Things (IoT) applications such as connected thermostats.
Managed services may be offered as long as they do not harm the availability and the general quality of the Open Internet. An example is where optimisation is necessary in order to meet the requirements of the content application or service for a specific level of quality. More and more innovative services require a certain transmission quality in order to work properly – not just today's services, but new ones such as telemedicine or automated driving. These and other services that can emerge in the future can be developed as long as they do not harm the availability and the general quality of the Open Internet.

Where a user receives non-internet access services from their provider, the user's contract should include a clear and comprehensible explanation of how those services might in practice have an impact on internet access services which the user receives from that provider.

Commitment 3 – Reasonable traffic management measures

In setting out Commitment 3, ISPs retain the ability, when providing internet access services, to deploy over their networks reasonable traffic management measures based on objectively different quality of service requirements of specific categories of traffic.

Reasonable traffic management should be transparent, non-discriminatory and proportionate, and should not be based on commercial considerations (such as a consideration driven by anti-competitive motives).
Providing a better quality of service and experience to the user is not generally considered as a commercial consideration.

Traffic management relates to practices applied to ensure the most efficient use of the network. This can involve deploying techniques to prioritise time-critical categories of traffic (e.g. video streaming) so that they work effectively. Conversely, ISPs can limit the throughput of non-time critical categories of traffic to provide a better experience for consumers accessing other types of traffic.

Traffic management measures that go beyond reasonable traffic management, may only be applied where permitted under the EU Regulation, including for as long as necessary to prevent impending network congestion, where such congestion occurs temporarily or in exceptional circumstances. Traffic management measures in this context treat equivalent categories of traffic equally.

Such practices might include:

- measures to optimise overall transmission quality in a permissible and proportionate way
- safeguarding the security and integrity of its network, including SPAM, anti-virus/malware and identity theft filters
- blocking websites and services as it is required to do so by law, Court order or if included on the Internet Watch Foundation list
- deploying age verification/child protection/parental control tools
- deploying content filtering or making available content filtering tools where appropriate for public Wi-Fi access
- ensuring elements of a consumer's contract can be applied (e.g. data caps, download limits, heavy user policy)

Commitment 4 – Providing clear and transparent information on traffic management to users

As set out in Commitment 4, ISPs remain committed to supporting the provision of clear and transparent information about their traffic management practices.

The following three elements were designed to ensure that meaningful, useful and comparable information is provided to consumers about the traffic management practices employed by their ISP:

- an explicit commitment to provide more information to consumers about what practices are used in networks to (a) help maximise capacity for everyone's benefit and (b) to support adherence by customers to terms and conditions.
- an agreed set of good practice principles that will inform how ISPs communicate that information to consumers.
- to deliver on the comparability principle, signatories commit to publishing a consistent Key Facts Indicator (KFI) table, summarising the traffic management practices they use for each broadband portfolio they currently market.

The KFIs table puts information about traffic management practices employed by these ISPs into the public domain in a consistent format. This information is accessible to consumers and for third parties, such as price comparison websites, to be able to compile this information for consumers.
The development of these commitments by ISPs provides a key building block to delivering enhanced transparency to consumers about traffic management practices. The joint commitment to provide information in a common format significantly assists in ensuring that information is made available in a way that enables comparisons to be made. These KFIs have been in operation since 2011. In September 2013, Ofcom published their own research highlighting consumer[4]

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[4] Ofcom, Consumer research into the transparency of traffic management information provided by ISPs, September 2013

understanding of traffic management, which demonstrated that the information is transparent and that the quality of the information that consumers can access has improved since the launch of the Code. Changes have since been made to the layout of KFIs to further enhance the information provided by the KFIs.

Good practice principles on transparency

It is important that ISPs are allowed to put traffic management into context for consumers and provide information about it alongside other relevant information about their service that can impact on the consumer experience (such as contention ratios, performance of the internet router, interference of the Wi-Fi signal, performance or settings of devices used to access the Internet, etc).

Signatories to the Code have agreed to make available on their websites a Key Facts Indicator table in relation to each broadband portfolio they currently market. This information is sufficiently detailed to provide comparable information and will be available for third parties, for example price-comparison websites, to compile comparative information about ISPs' practices for the benefit of consumers.

In order that the principles of "understandable" and "appropriate" are applicable, ISPs may choose to provide other, more top-line, discursive and contextual information about their approach to traffic management in line with the products they offer. However a link to the more detailed KFI will be clearly available to those consumers who would like further information and to third parties who may want to utilise it in order to innovate ways of presenting comparative information about ISPs' traffic management practices.

ISPs will ensure that the following good practice principles inform the way they communicate with their current and prospective consumers.

Good Practice Principles on Traffic Management Transparency	
Understandable	ISPs will use non-technical and clear language that consumers can understand to describe the traffic management practices they use.
Appropriate	ISPs will ensure the level of detail of the information provided will be adequate to meet the varying needs of different consumers. This could involve providing headline information about traffic management practices and supplementing this with additional information for consumers who may wish to access more detailed information.
Accessible	ISPs will ensure that this information is easy to find and access.
Current	ISPs will keep customers up to date about changes to traffic management practices that have a significant impact on their broadband product as quickly as reasonably possible using the most appropriate method. ISPs also endeavour to offer real-time information where appropriate and practicable.
Comparable	ISPs agree to publish a consistent key facts indicator table on their respective websites to summarise the traffic management practices used on

	the broadband products they currently market. This information will be available to third parties to present this information collectively for consumers to compare the practices of different ISPs.
Verifiable	ISPs will support a credible and independent assessment of their traffic management practices to give consumers assurance that the information provided about traffic management is robust.

How the Commitments are monitored

Signatories believe that this set of Commitments complement the approach set out by the EU Connected Continent Regulation and by Ofcom in its November 2011 statement.

In its 2011 Statement, Ofcom committed to monitoring:

- Progress in delivering transparent information to consumers about traffic management practices, keeping under review the possibility of intervening more formally
- The ongoing quality of best efforts internet access and keeping the possibility of introducing a minimum quality of service under review
- The prevalence and nature of products which block services in order to determine whether this would prompt any further intervention

These monitoring commitments align with the EU Connected Continent Regulation which foresees a number of monitoring responsibilities for national regulatory authorities[5].

Ofcom's monitoring of the provision of transparent traffic management information as part of its Connected Nations report plays a useful role in benchmarking signatories' success in communicating the nature of its traffic management policies to consumers as per the Commitments.

In its 2014 Communications Infrastructure Report, Ofcom highlighted progress made by ISPs in providing consumers with information on their traffic management policies[6].

Commitment 3 covers potential cases of breaches of the Code and accordingly, signatories to this Code recognise that it would be helpful for a process to be put in place to address them. This process is set out in Annex 1.

Ofcom's monitoring of the on-going ability of best efforts internet access to support innovation and to keep this under review as managed services evolve in the market is also an important component of the wider context in which these Commitments are being made.

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[5] Article 5 of Regulation 2015/2120/EU – Supervision and Enforcement

[6] *"Having reviewed the operators' summaries of broadband and mobile traffic management practices, we believe they are now being more transparent with consumers over this issue. The most significant development is that all UK mobile operators have now discontinued packages which block access to VoIP services. On top of this, EE, Vodafone and Virgin Media have signed up to the Broadband Stakeholder Group (BSG) Open Internet Code of Practice".* (page 5)
http://stakeholders.ofcom.org.uk/binaries/research/infrastructure/2014/infrastructure-14.pdf

The signatories to this Code support Ofcom's commitment to monitor the nature and impact of traffic management practices in the market and the effective co-existence of managed services and best efforts internet access[7].

SIGNATORIES:

BT

Sky

EE

giffgaff

KCOM

O2

Plusnet

TalkTalk

Tesco Mobile

Three

Virgin Media

Vodafone

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[7] Ofcom published a research to assess the availability of traffic management detection tools and methods – the study, published in August 2015, concluded that further work will need to be carried out to develop a practical traffic management detection solution effective along the digital delivery chain –
" A study of Traffic Management Detection Methods and Tools"
http://stakeholders.ofcom.org.uk/binaries/research/technology-research/2015/traffic-management-detection.pdf

Glossary

Full internet access / internet access service: a service which permits a consumer to access any content, application and service lawfully available on the internet. It is the principle by which ISPs convey all traffic on equal terms.
Providing such a service does not affect an ISP's ability to deploy reasonable and proportionate traffic management practices over their networks.

Traffic management of internet access services: traffic management is the term used to describe a range of technical practices undertaken to manage traffic across networks. The different outcomes achieved by the use of technical practices can include:

- differentiation reflecting the objectively different technical quality of service requirements of specific categories of traffic;
- the prioritisation of certain types of traffic in busy times or busy areas in temporary or in exceptional circumstances to ensure that traffic is of an adequate quality;
- the slowing down of certain traffic types that are not time-critical at busy times or busy places in temporary or in exceptional circumstances;
- ensuring compliance with a consumer's contract, for example slowing down of traffic for the heaviest users

Lawful content, applications and services: this definition excludes any service, content, application or protocol that an ISP is required to block by law or a court order and child abuse images as informed by the list provided by the Internet Watch Foundation.

Discrimination: does not preclude signatories from implementing, in order to optimise overall transmission quality, traffic management measures that differentiate between objectively different categories of traffic. In addition, safeguarding against the negative outcomes of discrimination should not be taken to mean that all traffic will necessarily be equal in practice. Traffic may be advantaged or disadvantaged as a result of a range of factors, for example, network distance between an end-user and the content host.

Blocked/blocking: this definition relates to products where certain services or apps are always unavailable as a consequence of an ISP's policy to block access to or contractually restrict access to a certain set of services on a particular product.

Non internet access services: This term encompasses both managed services and alternative services. The majority of internet traffic is delivered on a "best efforts" basis. A managed service, on the other hand is one whereby an ISP offers "quality of service" that optimises the content for the service in question and may guarantee a certain level of performance, so that the content, service or application can be delivered without risk of degradation from network congestion. Such a quality of service arrangement for products other than internet access services can be made between:
      i.   an ISP and a content or service provider; or
     ii.   directly between an ISP and the consumer.
Examples of managed services may include certain health care applications, services provided in car telematics, industrial or utility applications, such as smart grid, water management, oil and gas industry automation and critical public services. Alternative services may include Internet of Things applications such as connected appliances.

Slowed down: This outcome is achieved by the deployment of technologies that can decrease the priority of traffic types deemed to be non-time critical on the network e.g. slowing down traffic such as downloads during busy times and busy periods.

Prioritised: This outcome is achieved by the development of technologies that increase the priority given to certain traffic types, e.g. time-critical traffic such as video. This outcome can also be achieved as a consequence of slowing down other selected traffic which reduces the overall data flow on the network.

Annex 1

The Open Internet Forum

The Open Internet Forum is a mechanism for facilitating communications between interested parties to ensure that emerging opportunities and risks in relation to the Open Internet are raised within that group for consideration.

WIK's 2015 report made clear that the Open Internet Forum has delivered substantial benefits to the UK, in helping to foster trust and understanding between ISPs and Content Application Providers (CAPs). It is particularly useful for addressing areas beyond the core provisions of the Regulation and the Code.

Process for raising concerns about possible cases of discrimination over the Open Internet (in respect of Commitment 3 of the Code)

The purpose of this process is to:

- provide a useful mechanism for various industry players to constructively engage on specific issues and concerns should they emerge;
- provide a useful evidence base on actual market developments that will help inform Ofcom's evaluation of the nature and impact of traffic management practices and the co-existence of non-internet access services alongside best efforts internet access services;
- build on the useful cross-industry discussions that have informed the development of this Code to support useful and productive future dialogue on open internet issues.

The following sets out the details of the process and how to engage with it should you have an issue within its scope that you would like to raise:

<u>Who and what falls in scope of the process?</u>

This process deals with alleged issues of breach of this Code or alleged breaches of the provisions of the Regulation to the extent the alleged breaches arise from commercial practices which, by reason of their scale, materially reduce end users choice in practice, taking into account the respective market positions of those providers of internet access services, and of the providers of content, applications and services, that are involved.

This process is designed to support communication between ISPs and providers of internet-based content, applications or services with the overall aim to support the resolution of legitimate issues of concern in an efficient manner. The BSG may play a role in supporting discussions on a bilateral basis where this is appropriate in accordance with the process set out below. In addition the process also addresses more general issues about the transparency of traffic management policies.

Please note that this process is not for consumer complaints. If you are a consumer and wish to raise an issue in respect of traffic management, please contact your internet service providers in the first instance contacting its customer services team and following its published complaints procedure.

How does the process work?

1. Raising an issue with the ISP

If you are a provider of internet-based content, applications or services and believe that a signatory ISP to the Open Internet Code of Practice has failed to meet its Commitments by for example targeting and degrading your content, application or service you should raise this directly with them or get in touch with the BSG.

In doing so it is recommended that as much evidence and supporting information are provided as possible. It should be stressed that the signatories commit to this voluntary process in good faith and would expect any third party raising concerns to act accordingly by ensuring that any concerns raised are properly evidenced and supported. Signatories to this Code therefore reserve the right to dismiss and/or reject a complaint if it is not properly evidenced or if it does not fall within the scope of this process and Commitments of the Code.

The provider of internet-based content, applications or services may also wish to look at the signatory ISP's overall traffic management policy to ensure that the issue is not in relation to general and disclosed traffic management policy.
A list of hyperlinks to traffic management Key Facts Indicator tables provided by signatory ISPs is provided at: www.broadbanduk.org/trafficmanagementkfis
Contact details for individuals representing each signatory are held by the BSG. Contact: openinternet@broadbanduk.org

2. Logging an issue with the BSG

Should the issue not be resolved as a result of bilateral discussions the provider of internet-based content, applications or services can log this with the BSG by emailing: openinternet@broadbanduk.org

Please note that the BSG will only accept issues within scope of the process and which have been directly communicated to the ISP in question.

The BSG will not make a judgment of the validity of the claim but will share the log of raised issues with government and Ofcom at regular intervals to help build the evidence base of issues of concern and assist Government and Ofcom with any further analysis, action or investigation they may wish to pursue.

3. Update and review of process

The BSG and signatory ISPs will keep this process under review in consultation with other stakeholders. Publically available updates on this issue will appear on the BSG website as they are published.

Annex 2

Traffic Management Key Facts Indicator *

Section 1: Traffic management in relation to your broadband product (not including during busy times and places to manage network congestion see Section 2)		
Name of broadband product		
Use and availability of services, content, application and protocols on this product		
Are any services, content, applications or protocols always blocked on this product?**		Y/N
If so what?	*List*	
Are any services, content, applications or protocols always slowed down?		Y/N
If so what?	*List*	
Are any services, content, applications or protocols always prioritised?		Y/N
If so what?	*List*	
Are any managed services delivered on this product?		Y/N
If so what? What impact?	*This would highlight prioritisation of specific content or service and explanation of impact on any other traffic*	
Data caps and downloads		
What are the download/upload limits or data usage caps on this product?		Insert
Is traffic management used to manage compliance with data caps and download limits?		Y/N
Under what circumstances?		
Level of speed reduction?		
Duration of speed reduction?		
Is traffic management used in relation to heavy users?		Y/N
Under what circumstances?		
Level of speed reduction?		
Duration of speed reduction?		
Section 2: Traffic management to optimise network utilisation (what happens during busy times and places in addition to traffic management as described in section 1)		
Is traffic management used during peak hours?		Y/N
When are typical peak hours?	Weekdays:	Weekends:
What type of traffic is managed during these periods?***		

Traffic type	Blocked	Slowed down	Prioritised
Peer to Peer (P2P)			
Newsgroups			
Browsing/email			
VOIP (Voice over IP)			
Gaming			
Audio streaming			
Video streaming			
Music downloads			
Video downloads			

Instant messaging			
Software updates			
Is traffic management used to manage congestion in particular locations?		Y/N	
If so how?	The same practices are applied during peak hours		

* This KFI gives an overview of typical traffic management practices undertaken on this product; it does not cover circumstances where exceptional external events may impact on network congestion levels.

**This excludes any service, content, application or protocol that an ISP is required to block by UK law and child abuse images as informed by the list provided by the Internet Watch Foundation.

***If no entry is shown against a particular traffic type, no traffic management is typically applied to it, though overall network management rules shall apply (option to link to further information)

In addition to the above practices, X also modifies some traffic to optimise the end-user experience. The rationale for doing so is to make best use of network capacity to support real-time applications and make efficient use of data allowances. This practice is not carried out in a way which targets a particular provider.