

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title: Traffic Management and 'net neutrality'

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Representing (self or organisation/s): Open Rights Group

Address (if not received by email):

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Name Jim Killock

Signed (if hard copy)

Ofcom Net Neutrality consultation

Introduction

ORG welcomes the discussion paper, but is concerned that Ofcom is not minded to ask for the power to set a “minimum quality of service on the Internet”.ⁱ

We believe there is already a case for action to ensure openness on mobile “Internet”. As new rules permit more intervention by Internet Service Providers, with little context as to why they may intervene, Ofcom needs to ensure that abuse does not take place, especially as its own evidence suggests that transparency is unlikely to be sufficient.

ORG believes that the UK debate needs to be placed in the context of the benefits of the Open Internet, and the innovation, competition, freedom of expression and citizen benefits that accrue from it.

As the FCC’s Chairman says:ⁱⁱ

Why has the Internet proved to be such a powerful engine for creativity, innovation, and economic growth? A big part of the answer traces back to one key decision by the Internet’s original architects: to make the Internet an open system.

... The Internet’s creators didn’t want the network architecture -- or any single entity -- to pick winners and losers. Because it might pick the wrong ones. Instead, the Internet’s open architecture pushes decision-making and intelligence to the edge of the network -- to end users, to the cloud, to businesses of every size and in every sector of the economy, to creators and speakers across the country and around the globe. In the words of Tim Berners-Lee, the Internet is a “blank canvas” -- allowing anyone to contribute and to innovate without permission.

Network discrimination threatens to undermine this near exemplar of a free and fair market and should therefore be treated with the utmost caution. While the evidence of harm so far mainly relates to mobile networks, the evidence of benefit from the current ecology of the Internet is easy to find.

Yet protecting these benefits is not at the heart of the new approach. Instead, Ofcom is making an assumption that “new business models”, many of which are expected to move ISPs into the content delivery business, are yet to show risk, and can therefore be expected to proceed without the need for protection of the existing open market.

The proposed means of protecting against harm, “transparency” to ensure customers know how their ISP operates their network, and competition law, are too weak to ensure that abuse is sufficiently discouraged.

Evidence of harm, evidence of benefits

The Internet has brought massive value to the UK economy. It is at the core of the operation of most businesses and government services. It facilitates large volumes of conventional, real-world retail and trade.

Evidence of the benefits of the current open-to-all Internet are extremely easy to find. The rate of innovation is extremely high. Barriers to market are low, which brings great benefits to new small and medium size businesses in particular.

In short, the Internet still provides very low barriers to innovators which has led to strong growth and high benefits to society. Policies that may throw up barriers to innovation should be treated with extreme caution.

Dealing with harm is likely to be complex. The people or companies harmed by network discrimination may be individuals, groups of individual and small companies rather than large companies, as in the case of P2P traffic.

“Transparency” detailing network discrimination will not be much help to them if harm is taking place, and any means of address such as competition law would generally be inappropriate. Competition law is slow even when it is applicable.

However, we already have evidence of what can happen in networks that are too closely managed. The mobile “Internet” provides quite an extreme example.

On the mobile “Internet”, companies are able to determine the devices, applications and use of data of customers.

By controlling closed devices, a mobile “Internet” provider can determine what applications and behaviours are acceptable to them. Many applications and services that might compete with providers’ services have been blocked. Well-known examples include the closing of P2P traffic and blocking Skype and Google applications. Blocking such applications harms citizens as well as the companies themselves, by limiting innovation and competition.

Sometimes, as with O2’s contracts for Apple’s iPhone, customers are made to pay again in order to use their data supplied on the same contract on a second connected device.

Each of these behaviours, which are common or standard for mobile “Internet” access, are an anti-competitive abuse of network discrimination of the type that Ofcom is examining.

A useful outcome of this discussion would be to establish means to remove such behaviour from mobile network operators over time, in order that the mobile space can benefit from the sort of open competition which has been very beneficial on the Internet to date.

The FCC in the USA includes openness on wired and wireless networks, (and includes openness of devices as part of this) as a goal for their own Open Internet policies, and ORG would urge Ofcom to take note of this.ⁱⁱⁱ

Internet innovation drives consumer benefit

It is the:

- principal duty of OFCOM, in carrying out their functions
- (a) to further the interests of citizens in relation to communications matters; and

(b) to further the interests of consumers in relevant markets, where appropriate by promoting competition^{iv}

This assumes that a large part of the benefits we accrue as consumers of services are as a result of free and fair competition.

In such a model, competition, innovation, free speech and the exchange of ideas may be seen to drive social benefit.

Competition on the Internet is delivered through the network, not between network providers.

On the Internet, 'peer' production and private production compete to deliver better results than could be envisaged in previous markets and communications networks.

The true value, however, is in the possibilities that open up as a result of maximising the connectivity between a maximum number of peers. As each new peer is added to the network, they become potential customers, producers and contributors. If however they are restricted, then the overall contribution they make is likely to be diminished, lowering the value of the network as a whole.

For the UK, assuming that the USA and others continue to value overall connectivity, we could be placing UK businesses and consumers at a severe disadvantage if the UK market takes a more restricted, less innovative path.

The debate needs to be wider and much more public

The new technical ability to discriminate between traffic types and the legal rules around traffic management that are about to be transposed into UK law have yet to create a significant public debate.

While Ofcom says that "citizen groups have remained largely silent on the issues"^v we would say that in fact there has been widespread concern generated, for instance, during the Telecoms Package debate. ORG is certainly very prepared to facilitate a wider public debate about the issues.

Ofcom's proposed approach creates large risks to the open Internet

If 'managed services' are introduced, and perform faster than Internet-based services, this creates risks of its own. The model proposed seems to assume that ISPs will increasingly supply services and content as a means to increase revenues. This change of focus has substantial potential to limit competition between services on the UK Internet and discourage growth in access to competing services on the Internet.

Ofcom's approach has a second risk, in assuming that "transparency" and competition law could be sufficient to stop market abuse. These are weak interventions, and likely to fail to prevent harm if and when abuse occurs.

Ofcom questions

1 How enduring do you think congestion problems are likely to be on different networks and for different players?

We need to first know how successful government policy is likely to be in ensuring sufficient infrastructure is in place. Congestion will result if capacity lags behind demand, which will in turn suppress development of new services.

Capacity needed on networks is related to the capabilities of the devices people own. As their storage, processing power and graphics capabilities increase, the potential for people to use applications such as video, HD video or online gaming increases.

The role of government institutions should therefore be to ensure that capacity on open networks grows ahead of demand. This should then provide the greatest economic and social opportunities.

We recognise that demand problems are worse on mobile networks, as the capabilities of the devices and expectations of users are well-ahead of network capacity; and this is driving providers towards unfair discrimination and suppression of specific services.

Low capacity is a situation that policy should strive to avoid, rather than accept, and attempt to mitigate. Mitigation would likely to mean over-managed traffic and discrimination against specific services, as we see on mobile networks.

2 What do you think are possible incentives for potentially unfair discrimination?

Unfair discrimination already occurs on mobile networks, and sometimes in relation to peer-to-peer traffic. The incentives include:

- That a network operator has a service that competes directly with the traffic, such as a phone service against a VOIP service;
- That a network operator wishes to leverage extra revenue, as in the case of charges for “tethering” a phone to a device as a modem;
- That a network operator may wish to leverage a charge for a volume of traffic, as Ofcom notes was suggested in relation to the BBC iPlayer;
- That a network operator provides content on licence from rights holders, and wishes their service to work better than similar content from another provider;
- In relation to P2P traffic, simply that the traffic is assumed to be illicit, thereby giving false legitimacy to discrimination against legitimate P2P usage

On mobile networks, these incentives are already causing problems for users and services, including Skype. The mobile Internet market provides an existing example of how these types of incentives can, in an unrestrained and relatively congested network, quickly result in unfair network discrimination and anti-competitive behaviour.

3 Can you provide any evidence of economic and or consumer value generated by traffic management?

Many possible discriminatory practices could be portrayed as generating “consumer value”, while the damage may be hard to show. On the other hand, if it is accepted that an open network is a level-playing field that guarantees market access, creating citizen and customer benefits flowing from an open market, then understanding the general problem posed by becomes much easier.

We agree that some traffic management policies to ease congestion, prioritise urgent traffic such as VOIP or streaming content, or to deal with illegal content such as spam are legitimate and provide value.

However, as was discussed during the passage of the Telecoms Package, traffic discrimination practices are now mandated without any criteria for what may be legitimate or conversely abusive. Nor is there any certain means of address except through ‘transparency’ and competition law.

As was widely described at the time by groups including BEUC and a number of Internet companies, this leaves regulators with insufficient means of ensuring there is no damage to customers, openness and innovation.

There are also a range of other practices which allow some content delivery to perform better, which can potentially cause benefits but also could cause competition problems.

More concerning is the type of model proposed by Project Canvas, a project to supply TV programs via Internet connections to equipment built to a set standard. Project Canvas raises questions of openness and lack of interoperability, and anti-competitive effects created by a single, limited delivery platform. It will include an element of enhanced delivery.

Canvas is therefore providing a closed model of accessing content, a platform that apparently creates “consumer value”, but that, in practice, will create significant issues for competition and innovation, thereby damaging “consumer value” compared with an open, innovation-led model.

4 Conversely, do you think that unconstrained traffic management has the potential for (or is already causing) consumer/citizen harm? Please include any relevant evidence.

(a) Evidence of the potential for harm

There is a growing body of evidence that highlights the importance of “network effects” and open architecture to innovation and competition on the Internet. Unlike many previous means of reaching and creating markets, the Internet does not just vastly lower costs and barriers, but gives a much better means of assessing market information for participants.

The Internet also allows competition between peer and proprietary production, such as open vs closed source software or Wikipedia vs the Encyclopedia Britannica. These examples suggest that low cost, high value peer production

may often win out in an open network. This may happen in circumstances we may not imagine are possible before they are seen to work.

Changing the balance in favour of closed solutions may however damage the relative ability of low cost, high value peer solutions to compete, by denying them access to people who can contribute effectively. Network discrimination could easily be a means to disadvantage peer production, if for instance, peer to peer distribution suffers.

These themes emerge in the work of many academics but, to highlight a few, Yokhai Bencker^{vi}, Lawrence Lessig^{vii} and Jonathan Zittrain^{viii} have each analysed the reasons why these benefits emerge, and the dangers of closing networks in various ways.

(a) Evidence of current harm on mobile networks

Harm is already being caused through traffic restrictions on mobile networks.

To take one example: VOIP (Voice over IP, such as Skype) on mobile networks. Such applications use data which has been paid for by a customer, and the use of that data for VOIP can save customers money by avoiding the need to use tariffed calls across conventional networks. These savings could be very substantial if VOIP calls replace, for instance, international mobile calls. The actual data usage of these services, however, is low.

Blocking such applications, the expansion of their user base and therefore their development, causes obvious harm to innovation and customer benefit.

Tethering applications are also routinely blocked on mobile networks. Such applications allow the customer to use the data connection to run Internet applications on another device, such as a laptop. Clearly, this allows many more opportunities to use innovative services than on a phone.

The main reason for constraining devices from 'tethering' is simply to extract more payments via a second contract. Yet a customer has paid for a certain amount of data within fair use limits already. There seems to be little reason to block the use of such applications, except to exploit the closed device to maximize payments.

While the means of managing traffic is through the device and its contract, rather than through packet management, this is recognizably a 'net neutrality' issue, as the network operator is using this technique to create unreasonable management of their network.

As such, the FCC's principles include that "Consumers are entitled to connect their choice of legal devices that do not harm the network".^{ix} Norway's regulator provides a similar principle.^x

6 Ofcom's preliminary view is that there is currently insufficient evidence to justify ex ante regulation to prohibit certain forms of traffic management. Are you aware of evidence that supports or contradicts this view?

Evidence from other regulators such as the FCC and Norway seems to be that waiting to find evidence of widespread abuse is a poor way of protecting vital

infrastructure that thrives by providing an open network and is subject to new pressures.

By the time that damage will be easy to demonstrate, the harm will have been done, and bad economic practices with long term consequences may be locked in and difficult to remove. This could have long term consequences for the UK economy and its ability to innovate.

Evidence from other regulators seems to be that taking a 'precautionary' approach is reasonable, given the importance of the problems that need to be avoided. They are therefore looking to regulating 'beforehand' (ex ante).

At the same time, drawing the line between what is or is not reasonable will be difficult, and any problems that emerge need to be resolved quickly.

Ex ante *principles* seem to be a very good way of regulating this problem. This is the approach that a number of regulators are taking, through voluntary or official principles. These allow flexibility, as principles, rather than being prescriptive, and are best backed up by the possibility of action.

7 Ofcom's preliminary view is that more should be done to increase consumer transparency around traffic management. Do you think doing so would sufficiently address any potential concerns and why?

We do not think that this is a sufficient measure, for the reasons outlined in the introduction. Ofcom's own document does not really attempt to show that transparency could be sufficient, but rather seems to argue that in the absence of proven harm, an inadequate means of dealing with potential harm will do.

Transparency has done little to alleviate problems or benefit customers in the mobile Internet sector, so there is already evidence that transparency will not work.

The simple calculation a customer would have to make points to transparency being inadequate. Each customer is tied into a contract for Internet services, possibly affecting phones, mobiles and other devices and services, including television. Service discrimination issues become one among many that a customer has to think about when changing service provider.

(a) Transparency is insufficient

Transparency is unlikely to solve problems resulting from traffic discrimination. Reasons include:

1. Traffic discrimination is only one factor in customer choice
2. 'Bundling' of services and equipment means long contracts may prohibit customers from switching
3. The problems result from who you are talking to, not just your own connection. Thus if another user suffers problems accessing a service on another network, you may not be able to use that service, even if your network provider supports that service.

Transparency in short is reasonable where there is a single, simple choice to be made. Deciding what restrictions you might accept or the possible uses you may make of the Internet is not a simple choice, nor is it generally a singular choice.

(b) Competition law is insufficient

Competition law has proven to be a very poor method of preventing anti-competitive practice between technology providers. Because technology moves fast, competition law can only catch up with abuse long after the harm has been done. Thus it is unlikely to be a good way for catching possible harm.

Competition law better suits markets with a small number of large players, able to afford to use legal processes. Harm for small companies on the Internet will be harder for them to deal with, especially if they are based outside of the UK and facing similar problems in a number of jurisdictions. Given the wide range of such companies delivering benefits to UK citizens, any means of dealing with potential problems should make sure such companies and services are given proper means of redress.

(c) Standards work: they ensure competition

In many technology questions, 'standards' solve questions such as interoperability which limit or stop anti-competitive behaviour. The Internet is built on such standards – starting with the IP protocol – which guarantees the interoperability of different parts of the network, and ensures access to the network by all-comers.

While traffic management questions are of course in some circumstances justified, any significant change to the basic interoperability of the network threatens its ability to be a truly open platform, and therefore likely to create harm.

8 Are you aware of any evidence that sheds light on peoples' ability to understand and act upon information they are given regarding traffic management?

There is evidence that people are able to detect problems and act upon it. However, their chosen solution tends to be to wish to complain and change the conditions under which they are 'traffic managed' rather than to be forced to change provider.

The desire to complain and have a problem resolved derives in part from people's instinct that they should be able to do what they want with a service they have paid for, when it is capable of delivering what they need. That is, they instinctively feel that blocks and throttling are 'unfair'.

Thus Ofcom should have a well-established means of complaining and resolving complaints in a public fashion, much as led the FCC to take action on restrictions in the USA.

This argues again for an approach where Ofcom has a genuine power to intervene, rather than a weak market intervention such as 'transparency'.

9 How can information on traffic management be presented so that it is accessible and meaningful to consumers, both in understanding any restrictions on their existing offering, and in choosing between rival offerings? Can you give examples of useful approaches to informing consumers about complex issues, including from other sectors?

While transparency in policies is important, far more important is transparency in a means to complain and have problems of abuse rectified.

ORG does not have expertise in approaches to presenting consumer information.

However, we reiterate that ‘traffic management’ is not likely to be more than one among many factors in a judgement. Whatever the presentation of this ‘traffic management’ information, a customer will have to assess how they are affected by at least:

1. Contract termination penalties;
2. Billing of other services bundled, possibly including phone, mobile phone, cable or satellite television,
3. Bundled hardware;
4. Billing of any content services bundled with the contract, possibly including music and IPTV;
5. Any disruption caused by switching service provider

Therefore, presenting ‘transparent’ information about traffic management is not enough to avoid difficulties in avoiding problems by switching provider, nor can it usefully be presented separately. We would expect that standardization would be appropriate as in other fields where information needs to be presented in order for potential customers to make informed choices.

10 How can compliance with transparency obligations best be verified?

This is not a question for ORG at this stage.

11 Under what circumstances do you think the imposition of a minimum quality of service would be appropriate and why?

Given the importance of Internet services, and the centrality of openness to the Internet’s benefits, it seems best to proceed with a minimum quality of service before allowing ‘managed services’ as envisaged by the Ofcom paper.

Once ‘managed services’ are deployed within networks, at the possible detriment of access to the public Internet, harm could occur, either through abuse, or lack of investment in maintaining the relative speeds and quality of access to the public Internet.

A ‘minimum quality of service’ could include guarantees along the lines envisaged by the FCC’s draft or the voluntary guidelines from the Norwegian regulator.^{xi}

ⁱ Ofcom consumtation document, p1
<http://stakeholders.ofcom.org.uk/binaries/consultations/net-neutrality/summary/netneutrality.pdf>

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- ⁱⁱ http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293568A1.pdf
- ⁱⁱⁱ <http://arstechnica.com/tech-policy/news/2009/09/fcc-chairman-wants-network-neutrality-wired-and-wireless.ars>
- ^{iv} Ofcom's duties under the Communications Act 2003,
<http://www.ofcom.org.uk/about/what-is-ofcom/statutory-duties-and-regulatory-principles/>
- ^v Consultation document, p21
- ^{vi} See, for instance, The Wealth of Networks, Yochai Benkler
<http://yupnet.org/benkler/>
- ^{vii} For example, see
http://www.lessig.org/blog/archives/Lessig_Testimony_2.pdf
- ^{viii} For instance, The Future of the Internet and how to stop it
<http://futureoftheinternet.org/download>
- ^{ix} <http://arstechnica.com/tech-policy/news/2009/10/fcc-proposes-network-neutrality-rules-and-big-exemptions.ars>
- ^x See
<http://www.npt.no/ikbViewer/Content/109604/Guidelines%20for%20network%20neutrality.pdf>
- ^{xi} For Norway's regulations, see
<http://www.npt.no/ikbViewer/Content/109604/Guidelines%20for%20network%20neutrality.pdf>