
Three response to Ofcom Traffic Management and “net neutrality” Discussion Document.

Non-confidential

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Three.co.uk

About Three.

- 1 Three¹ is the largest mobile broadband operator in the UK, now supplying mobile broadband to almost 2m customers on laptops, tablets and other connected devices. Three is also the seventh largest internet service provider (ISP) in the UK, including both fixed and mobile ISPs. Mobile internet is available as standard on all Three mobile phones.
- 2 Three has the largest UK 3G network, based on number of cell sites, providing 3G coverage to over 95% of the UK population. By the end of 2010, this will have risen to over 98% population coverage.
- 3 Three is also the most recent new mobile network operator in UK, first launching mobile services in 2003, following Three successfully winning a 3G mobile spectrum licence in 2000.

¹ Hutchison 3G UK Ltd.

General comments.

- 4 Three welcomes Ofcom's discussion paper on traffic management and net neutrality.
- 5 Three agrees with Ofcom's overall conclusions that:
 - traffic management is a necessary response by internet service providers to the huge recent growth in internet data demand and that, without this, consumers are likely to be worse off;
 - there is no evidence of anti-competitive discriminatory to justify general regulation of traffic management; and
 - there is scope for greater transparency and comparability of different service providers' traffic management policies.
- 6 Three therefore supports industry initiatives to increase transparency and comparability of traffic management policies. This will help consumers understand what traffic management is, how it might affect them (among other factors that might affect customers' internet service) and how to make informed choices between different providers.

Response to Ofcom questions for discussion.

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

- 7 Congestion problems are likely to be persistent on all networks, in particular, mobile broadband networks. This is because:
 - demand for data is currently growing extremely fast;
 - it is often not physically possible to add network capacity fast enough to meet new demand; and
 - it would be uneconomic to build network capacity to meet potential peak demand at all times and all places.

- 8 The figure below illustrates how congestion issues are affecting Three's mobile network, in particular:



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Three UK mobile broadband busy hour data demand and network capacity.



■ Top 1-percentile sites ■ Top 10-percentile sites ■ Network average

Source: Three (confidential)

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

- 11 Incentives for potentially unfair discrimination (by a network provider) are only likely to arise in the event that:
 - the network provider is also offering to customers a service, application or other product that maybe competing with third party services that could be made available to customers on the network provider’s network; and
 - the network provider has significant market power (SMP) in the relevant market.
- 12 If the network provider is not offering its own competing services, then it is unlikely to have an incentive to discriminate against third party services.
- 13 If the network provider does not have SMP, then customers are likely to go elsewhere.

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

- 14 Traffic management creates considerable economic and consumer value. This is because – without traffic management – total customer demand is likely to exceed available capacity and this will either result in severe congestion or loss of service for all customers.
- 15 The primary objective of traffic management is to ensure that the majority of customers continue to get a good service, rather than all customers getting a bad service or no service at all. For Three, this is currently achieved by prioritising certain types of traffic over others (and explaining clearly in advance to customers why and when Three may need to do this).
- 16 Traffic management on internet networks is no different to traffic management in any other industry that features high fixed capacity costs and variable demand, for example:
- energy supply – energy generation and distribution involves large fixed capacity costs, combined with “peaky” customer demand, therefore, it is necessary to “manage traffic”, for example, through incentivising some or all customers to reduce demand at peak times, in order to avoid energy blackouts or building prohibitively costly energy systems; and
 - transport systems – rail and road systems involve large fixed infrastructure costs, therefore it is also necessary to “manage traffic”, for example, through congestion pricing mechanisms in order for all customers to avoid congestion or loss of service at peak times.

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

- 17 Unconstrained traffic management has the potential for consumer/citizen harm if:
1. it is used as pretext for potentially unfair discrimination; or
 2. it leads to consumer misunderstanding or mistrust of the service that they had expected.
- 18 As noted in response to question ii) above, incentives for potentially unfair discrimination are only likely to apply when the network is offering a competing service and when the network provider has SMP.

- 19 While unconstrained traffic management could lead to consumer misunderstanding and mistrust, network providers should have a commercial incentive to ensure that customers understand the service that they are getting and how traffic management could impact them. Three nevertheless supports industry measures to ensure greater understanding, transparency and comparability of ISP traffic management policies.

v) Can you provide any evidence that allowing traffic management has a negative impact on innovation?

- 20 Three does not believe that traffic management has had a negative impact on innovation. On the contrary:
- traffic management has encouraged innovative ways optimising the delivery of internet content and services, for example, video-on-demand or voice over IP (VoIP) services that automatically adjust quality to reflect available bandwidth, and file backup or software update products that automatically schedule to run at off-peak times; and
 - many ISP traffic management methods are themselves an innovative response to the challenge of fast growing and peaky internet data demand combined with short-term network capacity constraints.

vi) 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?

- 21 Three agrees with Ofcom's view. The risk of consumer/citizen harm would be either due to:
- specific problems of lack of competition, which should be addressed using Ofcom's (or other relevant regulatory bodies') competition powers; or
 - general problems of low consumer understanding, which Three believes that the industry can address through greater transparency and comparability of traffic management policies.

vii) 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?

- 22 Three agrees that more could be done to increase consumer transparency and understanding around traffic management and this should address most of any potential concerns. Low consumer understanding of traffic management is chiefly because ISP traffic management a recent innovation, resulting from the need to respond to huge growth in demand for new internet services, and itself is in rapid development.
- 23 Beyond this, regulators should address competition problems, if any, that create potential unfair discrimination or other anti-competitive behaviour on a case by case basis.

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

- 24 Three believes that people can understand and act on information regarding traffic management provided that it is presented in an appropriate and meaningful way, including:
- making relevant information available online, in marketing material and at the point of sale, so that customers can find out and make an informed choice before purchase;
 - presenting information about traffic management in the context of other information that can affect a customer's internet experience, for example, what type of connection that they are using (for mobile broadband, whether they are indoors, outdoors, in an urban or rural location, moving or stationary); the type of content they are trying to access, such as, just web browsing or bandwidth-heavy video streaming; and the type of computer or mobile device they are using;
 - explaining in a simple way that possible impact that traffic management might have on them, for example, that during peak hours when lots of users are wanting to use the internet in busy areas, we will prioritise web browsing over video streaming or file transfers, and this will mean that you will always be able to browse the net, but if you try to watch iplayer, then it might be slower than at off-peak times;
 - making information available real-time to customers (chiefly through contact centres) so that they can find out if there are any local issues affecting them.

ix) 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?

- 25 Information on traffic management can be presented in a way that is accessible and meaningful to consumers by focusing on:
- how traffic management might affect different internet services, for example, prioritisation of web browsing, but slowing of video streaming or file transfers;
 - when traffic management might affect users, namely, during peak internet hours (for Three, between 9pm and 11pm);
 - where traffic management might affect them, namely, only in certain congested locations, which users can find out about through contact centres or online; and
 - how others factors might also affect users internet service and how they can find out about this, for example, the sites or services that they are trying to connect to and, for mobile broadband, users' local mobile coverage and whether they are indoors, outdoors or in a vehicle.

x) How can compliance with transparency obligations best be verified?

- 26 Three believes that compliance can best be verified by customers' own experience, which is frequently reported through blogs and by other word of mouth, plus industry surveys and reviews.
- 27 The UK ISP market is highly competitive. Hence, providers will have a strong incentive to ensure that transparency obligations and service promises are met.

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

- 28 In general, Three does not believe that a minimum internet quality of service requirement is necessary. This is because consumers require and are willing to pay for different levels of service, and competition should ensure that these different demands are met.
- 29 In any event, many internet service providers are already subject to minimum quality of service obligations in their licence conditions. In particular, the Government's recent draft direction on mobile spectrum mandates that 3G licences will in future be subject to minimum mobile broadband speed and population coverage requirements.