O2 MOBILE BROADBAND 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: All Consumer Mobile Broadband and Mobile phone tariffs (Pay Monthly and Pay & Go)		
Use and availability of services, content, applications and protocols, on this product		
Are any services, content, applications or protocols always blocked on this product?**		Y
If so what?	To help keep kids safe online, we filter and block 18+ sites, as classified by the BBFC (British Board of Film Classification). Customers are restricted from accessing adult content by default, until they prove their age using our age verification tools, as detailed here: Age restricted content and age verification	
Are any services, content, applications or protocols always slowed down?		N
If so what?	N/A	
Are any services, content, applications or protocols always prioritised?		Y
If so what?	Emergency voice traffic.	
Are any managed services delivered on this product?		N
If so what? What impact?	N/A	
Data caps and downloads		
What are the download/upload limits or data usage caps on this product?	See http://www.o2.co.uk/shop/all-tariffs	
Is traffic management used to manage compliance with data caps and download limits?	Y	
Under what circumstances?	**Pay Monthly Tariffs** For our Pay Monthly tariffs, a customer's service will cease when their monthly tariff allowance is consumed and until they begin a new charging month, or additional allowance is purchased. **Pay & Go Tariffs** For all our Pay & Go mobile phone tariffs that offer a monthly allowance, a customer's data usage will start to be charged per megabyte (MB) when their prepaid monthly tariff allowance is consumed and until they begin a new charging month or purchase a further interim allowance. For all our Pay & Go tariffs that do not offer inclusive monthly data allowances, a customer's service will cease when their prepaid balance is consumed and until they purchase a further allowance. **Roaming outside our Europe Zone** O2 Travel and O2 Travel Inclusive customers roaming in O2 Travel destinations outside our Europe Zone will be provided with throughput of up to 500kbps for data services, which may slow some services down.	
Level of speed reduction?	See above.	
Duration of speed reduction?	See above.	
Is traffic management used in relation to heavy users?		Y
Under what circumstances?	Customers whose use is so excessive that other customers are detrimentally affected will be warned to adjust their usage or risk disconnection.	
Level of speed reduction?	N/A	
Duration of speed reduction?	N/A	
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?	N	
When are typical peak hours?	Weekdays:	Weekends:

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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?			N
If so how?			

* 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.
**** In addition to the above practices, O2 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.

Glossary

Traffic management:

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:

- the prioritisation of certain types of traffic in busy times or busy areas to ensure that it is of an adequate quality
- the slowing down of certain traffic types that are not time-critical at busy times or busy places
- ensuring compliance with a consumer's contract, for example slowing down of traffic for the heaviest users
- supporting the delivery of managed services, for example to ensure a guaranteed quality of service for a specific piece of content

Managed 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 can 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 can be made between an ISP and a content or service provider or directly between an ISP and the consumer.

Best Efforts: This phrase relates to the delivery of internet traffic where traffic management is applied without distinctions based on the source of that traffic.

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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 deployment 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.

Heavy users: Heavy users can cause peak traffic volumes to exceed the engineered maximum load. In practice this refers to a very small proportion of users of a network whose use is excessive to the extent that it impacts on other users.

For information from Ofcom on Traffic Management, visit
http://consumers.ofcom.org.uk/2013/09/internet-traffic-management/