## **Traffic Management Key Facts Indicator**\*

_	t in relation to your broadband tariff and places to manage network congestion see Section 2)					
Name of broadband tariff	All EE Mobile Broadband plans (Pay Monthly)					
Use and availability of services, content, application and protocols on this tariff						
Are any services, content, applications or protocols blocked on this tariff?**  Yes						
If so what?	All price plans and add-ons block unsolicited spam email (unauthenticated Simple Mail Transfer Protocol (SMTP) email) whilst in the UK and abroad.					
Are there any services, content,	or protocols always slowed down?	No				
If so what?	Not applicable					
Are any services, content, applic	cations or protocols prioritised?					
If so what?	Not applicable					
Are any managed services deliv	ered on this tariff?					
If so what? What impact?	Not applicable					
How we ensure compliance w	ith data caps, download limits and fair usage policies					
What are the download/upload limits or data usage caps on this tariff?	All price plans have a data allowance. Once the allowance is used further additional data can be purchased until the next bill cycle, after which the data allowance counter will reset to zero.					
Is traffic management used to manage compliance with data caps and download limits?	Yes					
Under what circumstances?	Once the data allowance from the package is used up all data services will stop. Additional data add-on is required to continue to browse the internet, download apps, watch videos online or do anything else that requires data usage.  Peer to Peer (P2P) traffic is throttled from 8am to 2am every day. More details below.					
Lovel of an end reduction 2						
,Level of speed reduction?	P2P traffic has a speed reduction applied.					
Duration of speed reduction?	P2P traffic is throttled at all times at different speeds depending on the time of day.					
Is traffic management used in relation to heavy users?						
Under what circumstances?	Not applicable					
Level of speed reduction?	Not applicable					
Duration of speed reduction?	Not applicable					

EE MBB Version 15.5

Section 2: Traffic management to optimise network utilisation							
Is traffic management used during peak hours?					Yes***		
When are typical peak hours?	Weekdays: 8:00 until 02:00 Weekends:			8:00 until 02:00			
What type of traffic is managed during these periods?****							
Traffic Type	Blocked	Slowed down			Prioritised		
P2P		During peak hours, the traffic is slowed down to 50kbps and during off peak is capped at 1800kbps.					
Newsgroups							
Browsing/email							
VOIP (Voice over IP)							
Gaming							
Audio streaming							
Video streaming							
Music downloads							
Web Pages							
Video downloads							
Voice							
Instant messaging							
Software updates							
Is traffic management used to manage congestion in particular locations?  No							

- \* 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, application or protocol that an ISP is required to block by law and child abuse images as informed by the list provided by the Internet Watch Foundation.
- \*\*\* The controls outlined in the table are applied at all times, not just peak hours.

Not applicable

- \*\*\*\* 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, EE 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.

## **Notes**

If so how?

Video streaming: We continually modify web-based embedded video streaming services in the following ways. You can choose to opt-out of these modifications at any time. We allow the video to build-up a buffer only up to a fixed proportional ratio of what is being viewed. This is based on the fact that the majority of

videos are stopped by the customers without watching the whole clip, and therefore saves unnecessary data download by you. In cases of network congestion, we may dynamically modify the playback bit rate so that the clip remains watchable. We are not currently compressing video streaming services to ensure that you receive a superior streaming experience when on 4G. We may compress video streaming whilst in 3G or 2G areas to try to prevent buffering and give a seamless experience.

We may compress the image slightly. We may reduce the frame rate on certain videos.

Web Pages: We modify i.e. compress web page images so that the web page loads faster, helping save the customer's data consumption. Settings for this service can be changed on request.

These settings may be different based on the data bearer you are on at the time when you are using your device e.g. we may not compress an image whilst you are on 4G but would on 3G or 2G.

## **Glossary**

Note: This is a glossary of terms used within this document only. If they're not ticked as applicable in the above policy, then they aren't relevant to your plan.

## **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 provide a specific quality of service for a specific piece of content

**Best Efforts:** This phrase relates to the delivery of internet traffic where traffic management is applied without distinctions based on the source/destination of that traffic and we do not guarantee to offer any particular level of service.

**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 a specific "quality of service" – or level of performance - for a certain type of content, service or application. 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.

**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.

Page **3** of **4** 

EE MBB Version 15.5

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

Further information on traffic management is available on the Ofcom website: <a href="http://consumers.ofcom.org.uk/2013/09/internet-traffic-management/">http://consumers.ofcom.org.uk/2013/09/internet-traffic-management/</a>

EE MBB Version 15.5