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3 Group response to BEREC's

Public Consultation on

Draft Guidelines on Net Neutrality and Transparency

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This paper contains the response of the **3** Group in Europe to BEREC's consultation on Draft Guidelines on Net Neutrality and Transparency: best practices and recommended approaches.

The **3** Group is part of Hutchison Whampoa Limited's telecommunications division and includes the following operating companies in the EU: Hutchison 3G Austria GmbH, Hi3G Denmark ApS, Hutchison 3G Ireland Limited, H3G Spa (Italy), Hi3G Access AB (Sweden) and Hutchison 3G UK Limited.

The HWL telecommunications division, comprising the **3** Group, Hutchison Telecommunications International and Hutchison Telecommunications Hong Kong, was the first global 3G operator, with operations in 9 countries[1]. Our 3G services were first rolled out in March 2003. As of 3 August 2011 the **3** Group had approximately 27.8 million customers worldwide, of which 20.6 million were in Europe.

Summary:

The **3** Group welcomes the opportunity to comment on BEREC's draft Guidelines on Net Neutrality and Transparency. In summary, the **3** Group takes the view that:

- Traffic management is a valuable tool that can enhance the quality of service of the customer experience, allow competitive differentiation and increase customer choice. It should be seen as a positive development.
- For customers to benefit from the possibilities that traffic management offers, they must have the information to make informed choices. This requires operators to be transparent about the traffic management policies they employ.
- The key criteria for delivering transparency identified by BEREC (accessibility, understandability, meaningfulness, comparability and accuracy) are appropriate, but BEREC should recognize that there are trade-offs between the different criteria.
- Flexibility is important to allow competitive differentiation and experimentation in the way operators communicate to their customers.
- The role of NRAs is to define the overall framework of the information to be provided. This should be done at national level to take account of different practices and concerns.
- A dual approach of allowing operators flexibility in the way they communicate to their customers whilst collecting comparable information for publication by the NRA or third parties has merit.

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[1]   Australia, Austria, Denmark, Hong Kong, Ireland, Italy, Macau, Sweden and the UK.

Background

Growth in mobile data services

The **3** Group is the leading operator in Europe in promoting mobile data services. This has been the case since the **3** Group businesses first launched in 2003. Since the launch of 3G services in 2003, the **3** Group has been at the forefront in promoting mobile internet and mobile broadband services.

Early versions of mobile web browsers were not optimized for viewing internet pages, which meant that, although it was technically possible to browse the internet there were few mobile enabled web sites and it was often a poor user experience. As the number of mobile enabled websites on the internet increased, it became apparent that there was demand amongst mobile users for full internet access. The **3** Group responded to this by launching, at the start of 2006, a service that allowed open access to the internet. To enable simple access to the most popular services, the **3** Group worked with, amongst others, Yahoo!, Skype, Google, Microsoft and eBay to optimize their services for use on a mobile handset. Since then the **3** Group has continued to offer unrestricted access to the internet, whilst at the same time working with content and application providers to offer services optimized for the handset.

Role of traffic management

The huge growth in demand for mobile data and mobile internet services started in 2007, driven by (i) improvements in handsets and the availability of low cost mobile broadband modems; (ii) the upgrade of 3G networks to HSDPA, thus allowing faster download speeds; (iii) the increasing number of applications optimized for mobile use; and (iv) attractive pricing. Since then data traffic has been growing faster than operators can install new capacity. In the case of **3**UK, for example, data traffic now accounts for more than 95% of capacity use on its network, with voice making up less than 5%. A further difficulty for mobile operators trying to manage the demand for capacity is that the traffic is not evenly distributed. Certain cell sites in certain areas and at certain times of day experience much more demand than others. In the face of this growth in demand, operators are looking at ways of ensuring their customers continue to experience a good quality of service.

One aspect of meeting the growth in demand is to increase network capacity. This is something the **3** Group, in common with many mobile operators, is engaged in, through adding new cell sites, acquiring and deploying more spectrum and upgrading the networks with the latest technology releases (HSPA and LTE, for example). However, even if it were possible to meet all demands for capacity at all times, it is unlikely to be financially viable. Customers would not be prepared to pay for a network that has sufficient capacity to meet demand on every cell site at all times of day. Just like the road or rail networks, consumers accept that there is a trade-off between capacity and price and accept that at peak times there will be congestion. The question then becomes how to deal with that congestion.

One option would be to leave traffic unmanaged and accept whatever customer experience resulted from that. It would mean an important voice call could be disrupted by the background software update of another user. The development of traffic management technologies has provided an alternative. Traffic management allows operators to improve the functioning of the internet and customers' overall experience. Thus, traffic management should be seen as a positive development, since it allows operators to give their customers a better quality of services.

In addition, traffic management allows operators to differentiate their services in an attempt to gain competitive advantage. Different operators may use different techniques and prioritise different services depending on the services they want to promote (for example, the **3** Group wants to ensure customers have a good web browsing experience) and their customer base (for example, business

users or consumers). This experimentation with different offerings is part of the competitive process and gives customers greater choice as well as leading to innovative new services. Differentiation benefits customers by giving them choice and is a normal part of any competitive process.

Traffic management also allows operators to offer different levels of internet access. One possibility would be for an operator to offer a service that allows internet access only outside peak times, or only allows access to low bandwidth services. Services such as these that have "restricted" access to the internet should be seen as positive developments because they enhance consumer choice. Many customers, particularly low income customers, may be happy to take a cheaper service that has some restrictions on use. Achieving ubiquitous broadband access is likely to require innovative and differentiated services like these. Different practices should not be categorised as "problematic "or "unproblematic" as different customers have different needs.

Of course, an essential component in all these differentiated offerings is to ensure customers have sufficient information to be able to make informed choices.

3 Group's approach to traffic management

The **3** Group businesses provide unrestricted internet access to their users. The different businesses deploy different traffic management techniques, reflecting the different network constraints and demands they face. However, they share the objective of managing congestion to optimize the service to their customer bases. Typically these traffic management techniques limit the bandwidth available to certain low priority services at peak times of day and on busy cell sites.

The **3** Group businesses have different ways of informing their customers about traffic management policies and are looking at how best to inform customers in a simple but comprehensive way**.** Exhibit 1 below shows the information **3**UK provides to customers about its traffic management policies.

Exhibit 1
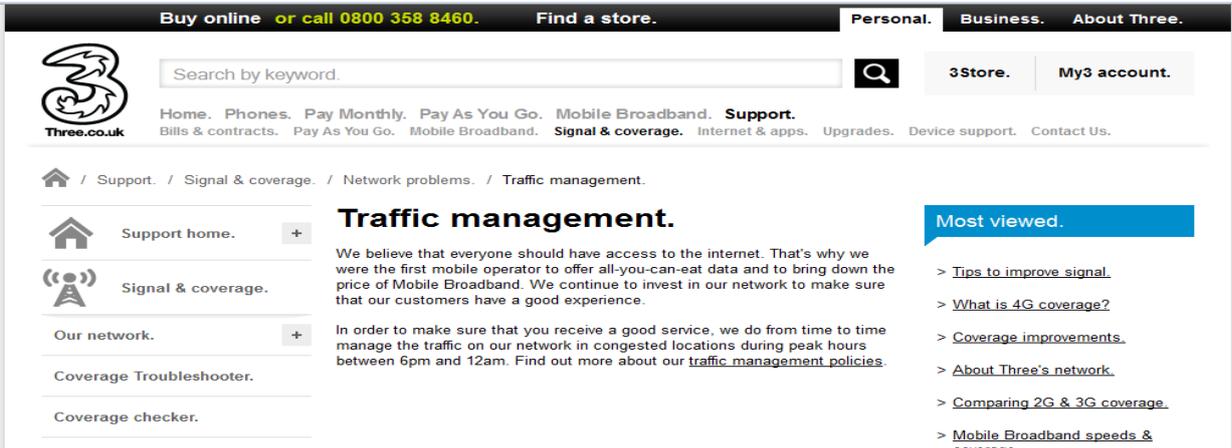
The role of transparency

The **3** Group welcomes BEREC's considerations on the subject of transparency in relation to "net neutrality". The **3** Group supports BEREC in developing broad guidelines on transparency in relation to traffic management practices. It agrees with BEREC that, the existence of competition in the market and the reduction of barriers to switching are, among others, factors to be considered alongside transparency.

Fundamentally, competition between ISPs will be the best guarantor that customers have access to the applications, content and service they want. As long as customers have the information they need to make well informed choices, there is no need for regulatory intervention. The revised regulatory framework specifically requires operators to inform subscribers of any limitations on the services and applications they can access (Article 21(3)(c) of the revised Universal Service and Users' Rights Directive) and traffic management techniques in use (Article 21(3)(d)). These provisions set the framework for the required transparency.

It is worth noting that these provisions refer to "limitations" in services and applications and "traffic management techniques". They do not refer to "net neutrality", which is a less well-defined concept and not enshrined in regulation in the EU. The **3** Group suggests that BEREC keeps to the wording of the regulatory framework since this has a legal basis and is better defined and understood.

The **3** Group agrees with the key criteria for delivering transparency identified by BEREC: accessibility, understandability, meaningfulness, comparability and accuracy. While all these criteria are important, one should recognised that there are clear trade-offs. For example, if information is presented as traffic lights, this may be accessible and understandable, but not necessarily accurate and comparable. On the other hand, detailed technical information is accurate and comparable (if provided in a standardised form), but may not be easy to understand.

Furthermore, the **3** Group believes that operators should be allowed flexibility in how they communicate their traffic management policies to their customers. The **3** Group businesses take care to communicate to their customers in a simple and easy to understand way, as shown by Exhibit 1 above. For the **3** Group this is a source of competitive differentiation. Operators may also chose to communicate differently to their different customer groups, for example, sophisticated corporate buyers or occasional pre-pay users. For the industry as a whole, flexibility enables experimentation, which may ultimately benefit customers. Flexibility is especially important since the industry is still at an early stage of deploying traffic management and a rigid approach may hinder innovation.

Rather than specifying the way in which operators communicate their traffic management policies to their customers, BEREC and national regulatory authorities (NRAs) should develop the overall framework. The framework should define the categories of information that operators must provide, whilst leaving operators free to decide how they communicate that information. The **3** Group believes this is best done by each NRA separately since that would allow them to take account of national practices and concerns.

Whilst leaving operators free to determine how they communicate with their customers, NRAs may want to collect information about traffic management from operators in a consistent way. This would enable the NRA and third parties, such as comparison websites or retailers, to provide consumers with their own comparisons of operators' practices.

In addition to providing a description of its traffic management policies to its customers, **3**UK participates in an industry initiative to provide transparent information on traffic management in a comparable format. The UK industry code is based on principles similar to the ones proposed by

BEREC, that is, information on traffic management should be understandable, appropriate, accessible, current, comparable and verifiable. This is presented in the form of a Key Facts Indicator (KFI) table, which is provided in the same format by all operators to achieve comparability. **3**UK provides the KFI table on its website[2], an example of which is also provided at Annex 1. The target audience for this table is mainly third party comparison companies who are expected to aggregate this information across all ISPs and provide meaningful and accessible comparisons to end users to help them make informed choices.

The **3** Group recommends this dual approach of (i) giving operators flexibility to determine how best to communicate to their customers within an overall framework; and (ii) collecting comparable information to enable third parties to make comparisons.

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[2]   http://support.three.co.uk/srvs/cgi-
        bin/webisapi.dll?command=new,kb=mobile,ts=mobile,t=article,varset_cat=signal,varset_subcat=3819,case=obj(4046),varset_username=
        Mobile:mobileUser&typeSearch='traffic%20manage*

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 Mobile Broadband and Handset Tariffs			
Mobile Broadband available in all areas where 3 has 3G coverage.			
Are any services, content, applications or protocols blocked on this product? **			No
Are any services, content, applications or protocols prioritised?			No
If so what?	N/A		
Are any managed services delivered on this product?			No
If so what? What impact?	N/A		
Data caps and download limits			
What are the download/upload limits or data usage caps on this product?			N/A
Is traffic management used to manage compliance with data caps and download limits?			No
Under what circumstances?	N/A		
Level of speed reduction?	N/A		
Duration of speed reduction?	N/A		
Is traffic management used in relation to heavy users?			No
Under what circumstances? N/A			
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 section1)			
Is traffic management used during peak hours?		Yes	
When are typical peak hours?	Weekdays: 18:00 – 00:00	Weekends: 18:00 – 00:00	
What type of traffic is managed during these periods? ***			

Traffic Type	Blocked	Slowed down	Prioritised
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? *Congested sites only*			

* 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.

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.

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.