Internet Telephony Services Providers' Association

ITSPA response to Traffic Management and 'net neutrality'

About ITSPA

The Internet Telephony Services Providers' Association (ITSPA) is the UK VoIP industry's trade body, representing 60 UK businesses involved with the supply of VoIP and Unified Communication services to industry and residential customers within the UK. ITSPA pays close attention to the development of VoIP regulatory frameworks on a worldwide basis in order to ensure that the UK internet telephony industry is as competitive as it can be within international markets.

Please note that the ITSPA response is not necessarily supported by all ITSPA members. Individual members may respond separately to this consultation.

A full list of ITSPA members can be found at http://www.itspa.org.uk/

Summary of ITSPA's Position

VoIP is the future of voice services, with new added-value applications and cost benefits. As next generation network rollout becomes mainstream, so will IP telephony. Consumers will expect the same quality of service as on the traditional PSTN network. As the technology has developed, the experience has improved significantly, to the point where the customer experience is exceeding that of traditional circuit switched telephony. The concern for ITSPA members is that consumers are simply not aware of how traffic management techniques could affect the quality of particular services which they use on the Internet.

The blocking of services such as VoIP is fundamentally anti-competitive and Ofcom should ensure that this does not take root in the UK market. Net neutrality is crucial to the on-going expansion of VoIP services and is a driver for economic growth.

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ITSPA has reservations about Ofcom's position on discrimination and significant market power (SMP). ITSPA would question whether *"discriminatory behaviour is only a potential issue where firms have substantial 'market power' and could discriminate in favour of their own service"* [1].

Net Neutrality: ITSPA key principles

The key principles which ITSPA wish to outline are:

1. ITSPA understands that traffic management is an essential and probably unavoidable feature of the Internet.

2. Necessary traffic management should not be confused with, or used as a cover for anti-competitive behaviour whose purpose is solely to give an advantage to the network operators own services.

3. VoIP is a new industry characterised by a large number of small highly innovative players. In contrast fixed and mobile networks are characterised by large established players who typically both own infrastructure (and thus deploy traffic management) and sell voice services over these networks.

4. Many infrastructure providers have a commercial incentive to disadvantage VoIP services that compete with their own offerings. This represents a threat to the nascent VoIP industry. The obvious concern is service interruption but perhaps even more seriously is the freedom that large vertically integrated operators have to block or degrade VoIP traffic.

5. The potential to block or degrade specific services deters investment in this new market. This ultimately results in less competition and innovation as well as higher prices.

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[1] Ofcom Consultation, Traffic management and 'net neutrality': 1.11 of Executive Summary

6. VoIP requires very small bandwidth (circa 100kbps) compared to other traffic such as video and peer to peer services. There will rarely be a need to restrict bandwidth for traffic management purposes.

7. VoIP requires reasonable jitter, packet loss and latency parameters that should be easily achievable on a well-managed network.

8. There are documented examples of mobile operators who block the use of VoIP clients on their networks even though their customers are paying for the data traffic. This can only be explained by a desire to protect the mobile operators own voice revenues.

9. Two possible remedies are:

    a. A clear, standardised and prominent declaration by network operators and ISPs as to whether they provide a network suitable for VoIP traffic or not. A network suitable for VoIP traffic would:
    i) Have appropriate packet loss, jitter and latency parameters to allow a VoIP call to proceed with good quality.
    ii) Not seek to block any VoIP services to gain a competitive advantage for its own voice products and
    iii) Priority for voice services over less critical / non-real time applications such as browsing, video and peer to peer within any traffic management policy.

    b. A prohibition on anti-competitive blocking or interference with third party voice providers.

10. The consequence of inaction is a less vibrant VoIP industry focused almost exclusively on the fixed market where there is already a large degree of voice competition. Voice innovation and development of converged services will be constrained unless the larger mobile industry supports VoIP operators ultimately resulting in inferior products, higher prices and less choice for customers.

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Consultation Document: General comments

ITSPA welcomes the Ofcom consultation on traffic management and 'net neutrality'. It is an issue that has been on the regulatory agenda in various countries for a number of years and has also been a discussion point amongst ITSPA members since the inception of the organisation. Concerns surrounding the blocking and degradation of VoIP services resulted in conversations with ISPA (the Internet Services Providers' Association) during 2006 and 2007. This culminated in ISPA producing a Best Practice Document on Blocking and Filtering[2]. Whilst a useful starting point in the discussions, the document has not alleviated the concerns that VoIP providers have regarding the potential dangers of traffic management by network operators.

ITSPA members understand some of the challenges that the growing demand for Internet services has had for those companies managing the underlying networks. The services available to consumers have grown significantly over recent years and this is only likely to continue. Both fixed and mobile networks have come under increased pressure from the explosion of high bandwidth services.

ITSPA accepts that traffic management, in various guises is a necessary part of ensuring Internet services are maintained to a level that the consumer expects. However, ITSPA is keen to stress the marked difference between reasonable traffic management techniques (such as prioritisation) and the unacceptable discrimination against particular services (in the form of blocking access). Certain applications such as Voice are reliant on a reliable Internet connection that enables transmission without delay or interference. VoIP requires very little bandwidth and so ITSPA can see no justification in the degradation of this vital service for businesses and consumers.

The blocking of services such as VoIP is fundamentally anti-competitive and Ofcom should ensure that this does not take root in the UK market. Net neutrality is crucial to the ongoing expansion of VoIP services and is a driver for economic growth. At present in the UK this is not a significant problem; however, ITSPA feels Ofcom must remain vigilant. For services such as IP telephony, there are solid commercial drivers for an ISP or mobile operators to degrade or block a

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[2] ISPA BCP on Blocking and Filtering of Internet Traffic:
http://www.ispa.org.uk/home/page_327.html

competitor's service that runs over their network. This anticompetitive behaviour must be prevented to ensure customer choice and a fair route to market for all communications providers.

Fair and transparent communication between the customer and broadband service provider or mobile operator is therefore essential. However, transparency is only one part of ensuring customers are empowered. Also essential is the consumer's ability to switch provider with ease. There are concerns amongst the membership that barriers still exist to switching provider, which could nullify any efforts to provide effective consumer transparency.

ITSPA has reservations about Ofcom's position on discrimination and significant market power (SMP). ITSPA would question whether *"discriminatory behaviour is only a potential issue where firms have substantial 'market power' and could discriminate in favour of their own service"*. Although ITSPA acknowledges that switching ISP has become easier, there are still a number of barriers that make this process difficult. We therefore do not agree that discrimination of particular services is only effective if that ISP or mobile operator has SMP. Many consumers are still not aware of traffic management techniques and therefore would not necessarily understand that their service provider could be responsible for the degradation of a particular application. Discrimination remains a threat for any service provider, until consumer awareness of traffic management increases and until the process of switching becomes truly effective.

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Questions

The responses to the questions are primarily in relation to the voice market but the arguments can be applied to other Internet services.

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

ITSPA accepts that there are significant challenges for mobile operators and ISPs to prevent congestion problems surrounding Internet traffic. Despite these challenges, ITSPA believes that Ofcom should ensure that no discriminatory traffic management policies are implemented. For fixed networks, the rollout of next generation networks should a have a positive impact and ease some of the congestion problems.

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

Certain forms of traffic management enable mobile operators and ISPs who provide their own services (such as voice) to gain an advantage over their competitors. There are genuine financial incentives for mobile operators and ISPs to block or degrade a rival VoIP service that runs on their networks. These practises already take place in certain countries today but have yet to be really felt in the UK. However there are instances, particularly in the mobile sector, where traffic management techniques are a concern to the VoIP sector. Some UK MNOs already require their consumers (via their terms and conditions) to refrain from using VoIP or charge an extra fee for doing so. There are also instances of particular handsets being disabled from using SIP technology. Examples can be provided.

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

ITSPA accepts that by prioritising certain traffic, the consumer experience of the Internet can be significantly improved for specific services. During periods of high usage, it maybe essential to prioritise specific traffic, particularly those services such as voice that are reliant on real time

deployment. Business ISPs may choose to prioritise voice, while others may prioritise video streaming or online gaming. The main consumer value of traffic management is that it can function as a short-term remedy until the rollout of network upgrades is completed. However it is important that traffic management should be targeted at managing congestion and not at discriminating against services or competitors.

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

If blocking and degrading of voice services became the norm, there would be a clear negative impact on innovation. Without a route to market, VoIP providers would not be able to operate and would not provide consumers with valuable and reliable alternatives to the traditional telephony market. This would fundamentally harm the consumer in terms of voice applications available and cost. New innovations would ultimately suffer as competition would be stifled. If there were requirements to pay for prioritisation of traffic, this could also potentially damage niche or new entrants to the market compared with the established operators. VoIP has given consumers much more flexibility and mobility than the PSTN and has also provided a number of extra services free of charge (caller ID, 3-way calling, call forwarding, automatic redial, call screening, multiple phone numbers etc.). Prohibitive traffic management policies would threaten these services and future technical advances.

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?

ITSPA is concerned that Ofcom only considers the potential need for ex ante regulation when a provider has SMP. ITSPA questions the reasoning behind this argument as previously mentioned. Whilst consumers are becoming more able to change providers, there still remains a number of barriers to switching such as minimum contract terms. ISPs therefore have significant control over the consumers that they provide services to. Consumers in general are not significantly aware of the ways in which traffic management services could potentially affect the other applications which they may wish to use online. In the case of VoIP, there still remains significant

potential for a network operator, whether SMP or not, to initiate degradation or blocking practises that are uncompetitive and discriminative.

The mobile market is of particular concern to ITSPA members as there is evidence of blocking in this area. ITSPA believes that ex ante regulation should be considered in this market to promote technology neutral services and to prevent consumer harm. If all the mobile networks block access to SIP voice then customers cannot vote with their feet and switch providers. This situation could arise and with no MNO having SMP, it would seem that no regulatory action would be deemed appropriate under existing Ofcom policy.

ITSPA also remains concerned about the length of contracts in the mobile industry. Even if full disclosure of policy towards blocking was provided, consumers would effectively have to decide at the point of purchase whether they wished to use a VoIP provider over the next 12 to 18 months. ITSPA would question whether this would constitute a fair playing field when competing for customers.

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?

ITSPA agrees that increasing consumer transparency is essential to enabling consumer choice. At present, ITSPA does not feel that all ISPs or mobile operators offer sufficient information, which provides consumers with a genuine understanding of the effects on service that traffic management techniques could potentially bring.

As previously mentioned, ITSPA is not convinced that consumer transparency alone is sufficient in addressing the concerns. More needs to be done to assist consumers in switching providers. ITSPA also believes that regulatory remedies should potentially be considered, even if there is no SMP in the market place.

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?

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ITSPA believes that any information which is outlined to consumers' needs to be clear and concise. There is a real danger for "information overload" and so it must be kept as simple as possible, with the option for consumers to delve into the more detailed information if they desire.

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?

The most effective way to ensure consumer comprehension is to illustrate traffic management techniques in terms of the effect it has on their experience of individual applications, such as voice, video and online gaming.

In the consultation document, Ofcom has outlined four different options to providing consumer information and transparency. ITSPA can understand some of the benefits of all the options and in some ways, it maybe useful to adopt all approaches in some form. This would help improve understanding of traffic management and provide greater ability for consumers to make an informed choice. ITSPA does feel however that the provision of consumer information cannot be coordinated by the network operators and ISPs alone. There is too much opportunity for individual providers to present their traffic management policies in a way which could be misleading to the customer. Whilst ITSPA accepts that the network operators and ISPs should be able to communicate with their customers in way that they are comfortable with, there must be some basic level of information and language which is consistent across the industry to ensure consumers can understand the information being presented. The central body should be there to set those parameters.

ITSPA believes that the coordination of consumer information by a central body like Ofcom (or uSwitch or SamKnows) would have two significant benefits. Firstly it would be the most sensible way of ensuring consumers have a readily accessible point of contact to receive impartial advice. Secondly it could coordinate a framework of obligations and the parameters in which network operators would have to work within when disseminating information about traffic management. This framework could be industry led but coordinated by the central body. ITSPA believes that

the options outlined by Ofcom could all be useful ways in improving consumer understanding but a one stop shop (example 2) would act best as the focal point.

ITSPA would suggest a simple outline of service provision by the network operator, which should be made clear to customers at the point of sale and clearly on their home websites (via a hyperlink). A set list of services could be selected for operators to highlight which they provide and which they prioritise during high periods of traffic.

For example:
During times of peak demand the connection will be traffic-managed in the following order:

- VoIP and gaming applications - these get the highest priority, because these applications need the fastest delivery and reliability.
- Applications like BBC iPlayer, ITV Player and 4oD - because any disruption to these causes that annoying picture pixilation or freezing. Our customers told us that they'd prefer reliability when watching shows online.
- Web pages, email and peer-to-peer traffic - web pages and emails should still be delivered quickly. Peer-to-peer traffic might be a bit slower at certain times of the day but as they're not usually 'real time' applications like VoIP, gaming and video streaming, they can usually cope with a temporary reduction in speed.

Some existing ISPs already provide some useful documentation on traffic management, which could be a useful starting point to formulate parameters on consumer information. The key will be ensuring both mobile operators and ISPs act unilaterally to provide this information to their consumers. Clear and visual links should also be provided on each homepage of the network operator's website.

Specific examples include:
PlusNet – http://www.plus.net/support/broadband/speed_guide/traffic_prioritisation.shtml
Virgin Media – http://www.virgin.net/allyours/faqs/trafficManagementFAQ.html

Likewise any services that are blocked should also be stated clearly on consumer information and at the point of sale (although ITSPA would advocate that blocking of any legal Internet service by network operators should be prohibited).

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

ITSPA believes that Ofcom or another central body (uSwitch or Samknows) must be the last port of call to verify any obligations surrounding consumer information that the network operators and ISPs have to comply with. This is necessary to ensure the industry is proactive in dealing with this issue before it potentially becomes a problem. A reactive compliance mechanism could easily lead to traffic management initiatives being implemented that are both anti-competitive and discriminative. A central body that can verify the necessary information would bring real authority to any industry led initiatives surrounding consumer transparency.

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

ITSPA believes that Ofcom should ensure that operators are obliged to do everything in their power to retain sufficient bandwidth for VoIP services to work effectively.