

Arqiva response to Traffic Management and 'net neutrality'

About Arqiva

Arqiva is technology- and service-neutral and operates at the heart of the broadcast and mobile communications industry. We are at the forefront of network solutions and services in an increasingly digital world. The company provides much of the infrastructure behind television, radio and wireless communications in the UK and has a growing presence in Ireland, mainland Europe and the USA.

Arqiva has some 2,300 employees with its headquarters near Winchester and other major UK offices in London, Warwick, Buckinghamshire and Yorkshire. The company is owned by a consortium of long-term investors, comprising the Canada Pension Plan Investment Board (CPPIB), and Macquarie entities, and other long term investment funds.

Major customers include the BBC, ITV, Channel 4, Five, BSkyB, Classic FM, the five UK mobile operators, Viacom, Turner Broadcasting, Metropolitan Police and RNLI.

In July 2009 Arqiva acquired the platform assets of the former Project Kangaroo and launched the online TV service SeeSaw, tailored for UK audiences, in February 2010.

SeeSaw offered independent producers a retail opportunity independent of broadcasters to exploit the secondary rights granted to them in the Communications Act, but largely unexploited until then.

SeeSaw offers consumers a clean, uncluttered interface with no banner ads. Different ads are served pre- and post-"watershed", users can choose from 3 downstream speeds (except for 4OD content) and can fade everything on the page (bar the video) to dark for easier viewing. Subtitles are available.

SeeSaw launched with more than 3,000 hours of content from the BBC, Channel 4, Five, TalkbackThames, Shed Media and others. Over 200,000 people visited SeeSaw in the first week, even before the initial advertising campaign started.

SeeSaw has received 3 million unique visitors since launch and now offers more than 3,500 hours of ad-funded TV from BBC, Channel 4 and more. New shows are added every day, with Catch-Up shows from 4oD and Demand Five. In addition SeeSaw now has over 1,600 hours of premium UK and US comedies and dramas to rent from BBC, NBC Universal, MTV and others.

Arqiva became a member of Project Canvas in March 2010.

Introduction

The mass adoption of always-on broadband, ever faster download speeds, and the resultant launch of bandwidth-hungry services has led to congestion for broadband subscribers during times of peak demand.

There is no evidence that this congestion will ease in the short to medium term. The problem of congestion may become most severe in wireless networks where consumer demand is rising rapidly (driven by dongles, smartphones and tablets),

but the government controls the release of new spectrum to the operators and consumer opposition to new masts injects delay in operators "in filling" existing sites.

Without some degree of traffic management, in peak hours of demand -

- traffic to and from the services consumers value the most fights for bandwidth with teenagers downloading pirated films, Facebook status updates, tweets and spam e-mails; and
- high-bandwidth services will lose customers as a result of factors outside their control.

With ISPs locked in a highly competitive, and price conscious, retail market it is unclear whether broadband subscriptions alone would fund the investment necessary to alleviate congestion. The introduction of charges for traffic management could provide ISPs with the means to fund the necessary investment in infrastructure from service providers as well as from subscribers.

Arqiva recognises that there is an emotive argument for equality of service - but even if ISPs' networks were to be regulated as a utility, all services couldn't be equal as the ISPs' middle mile and last mile connectivity is only one factor affecting the quality of service experienced by consumers, and therefore any imposed regulation would have to be far reaching and potentially complex.

It is clear that ISPs charging for a "priority lane" of service delivery has the potential to raise the barriers to entry, with a consequential impact on consumer choice and innovation, but we believe that this risk is currently outweighed by the alternative of all media-rich online services being equally impaired thereby hindering the consumer experience across all such services.

With strong competition in the broadband market we believe that market forces will result in ISPs charging a fair and reasonable price for priority, where they charge at all. We would however suggest that Ofcom closely monitors ISPs' pricing policies in this regard to ensure that they do not distort the market by unfairly restricting access in any manner.

Arqiva broadly supports Ofcom's proposals, to leave ISPs free to manage traffic as they deem appropriate for their networks and subscriber usage patterns. There is currently little or no evidence in the UK of consumer harm from traffic management, where it is unlikely that any ISP has Significant Market Power (SMP). That, combined with nascent demand for "bandwidth hog" services (which, despite the hype, remain the preserve of the few) and ongoing major investment in infrastructure by ISPs, means that no-one can know which problems may occur, when and what detrimental effect they may then have on which subscribers. Without answers to those questions, net neutrality is a solution to a problem which hasn't been shown to exist.

But given the high profile, and international dimension, of the debate, we suggest that Ofcom undertakes to review the situation again in 2 or 3 years' time.

Transparency for consumers is definitely an issue which deserves regulatory attention in the short term, not least as it may persuade ISPs to offer greater differentiation of broadband packages, although getting across quite complicated issues in layman's language won't be easy and a programme of ongoing consumer research will be necessary to continually refine the transparency obligations.

Answers to questions

Q1. How enduring do you think congestion problems are likely to be on different networks and for different players?

Rising broadband penetration, combined with increasing interest in capacity hungry services such as high definition and 3D audiovisual content, online gaming and cloud computing, will undoubtedly ensure that consumer demand for broadband bandwidth (both uplink and downlink) keeps rising - even if demand for illegal content satisfied by peer-to-peer traffic were to fall significantly (and that is far from guaranteed).

Even though it is hard to be precise at the moment what additional bandwidth-hungry services may be launched, it seems a safe bet that, as with storage, consumers will tend to demand more than they currently have, putting strain on access infrastructure despite the investments being made in it.

Such congestion is likely to manifest itself in different ways in wireless networks from fixed, but it is also likely that wireless users will have different expectations of quality of service. Given that we can reliably predict neither consumer demand on wireless networks nor the impact on supply of future investment in those networks' infrastructure (where the introduction of LTE will likely considerably impact both sides of the equation), and that congestion will vary by wireless network across the UK (and with currently no roaming or spectrum sharing between networks), there could be no "one size fits all" approach to traffic management appropriate to all broadband subscribers - beyond either permitting ISPs to continue to determine the most appropriate solution for them or prohibiting traffic management for all ISPs.

As congestion is likely to become an increasing problem, we believe ISPs should retain the option to manage the traffic over their networks. If this were no longer permitted, not only would consumers increasingly suffer as all traffic during peak hours slowed to a crawl, akin to the Royal Mail only offering a single class of delivery and private couriers prohibited, but ISPs would be denied an additional source of revenue to fund the investment in infrastructure necessary to address the problem.

Further, if ISPs were prohibited from blocking or throttling certain services or content, then they would neither be able to hold themselves out as taking a tough stand against music and movie piracy (which could earn them better content deals on behalf of their subscribers) or offer "family or kid friendly" packages, which would reduce the barriers to internet use for some and create greater efficiencies because each subscriber opting for such tariffs wouldn't have to individually install, and continually update, filtering programs.

As it is impossible for Ofcom, ISPs, online service providers or consumers to determine how enduring congestion might be on any specific network, and what the implications of that might be, this strongly suggests that Ofcom's presumption that no ex ante regulatory intervention could be justified to prohibit or control traffic management is the correct one for now. However given considerable ongoing investment in broadband infrastructure and the speed with which new online services can be launched and reach mass adoption, it may be wise for Ofcom to undertake to review the situation again in 2 or 3 years' time.

Q2. What do you think are possible incentives for potentially unfair discrimination?

Discrimination is common practice in most commercial markets, and two-sided markets are not uncommon either; what is perhaps surprising is that there is seemingly so little of this behaviour currently undertaken by ISPs, primarily because the market is still maturing.

For ISPs the incentives would be similar to, say, supermarkets, where certain goods or services would be prioritised as a result of vertical integration, which is certainly applicable to some ISPs, or as a result of payment (which may be in kind). For ISPs there is the additional factor of traffic suspected to comprise of illegal or pirated content, which some ISPs may wish to discriminate against in favour of traffic deemed to be legal.

However aside from the issue of illegal or pirated content, generally speaking any such discrimination should only warrant regulatory attention when either the ISP has SMP and/or affected subscribers would be unable to make an informed choice to avoid this discrimination because of insufficient transparency and switching costs.

The only exception, arguably, might be when it was access to online public services which were being discriminated against (where it is unlikely that the relevant service providers would be willing to pay ISPs), and then perhaps only when online public services have replaced their physical equivalents to a far greater degree than now.

Q3. Can you provide any evidence of economic and/or consumer value generated by traffic management?

No, as Arqiva isn't an ISP. But if an ISP chose to prioritise the traffic of a high-bandwidth service with mass appeal, such as iPlayer or SeeSaw, over peer-to-peer content of dubious legality, that would have to be generating value for most of the ISP's subscribers.

Q4. Conversely, do you think that unconstrained traffic management has the potential for (or is already causing) consumer/citizen harm? Please include any relevant evidence.

Unconstrained traffic management has the strong potential of differentiating services; however we do not currently view this as detrimental to the consumer. With the broadband market still developing we believe that it is fully justifiable to charge subscribers for quality of service and we view an extension of this to service providers as a natural extension, albeit that ISPs do not unfairly take advantage of their market position.

We are far from such a situation where there are significant barriers to entry and it must be recognised that there are factors affecting quality of service which lie outside ISPs' control, so prohibiting traffic management wouldn't necessarily enable new services to launch (depending on their nature) without them having to invest in CDNs and edge servers in advance.

And while the blocking of access to VOIP services is undoubtedly an irritation to some subscribers, with a highly competitive market for broadband access and relatively low switching costs it is not clear that VOIP services need to be specifically singled out for regulatory attention except, perhaps, in respect of cellular subscribers for many of whom only another cellular Wireless ISP (WISP) would be a substitute (so that if all UK WISPs blocked VOIP calls that would result in consumer harm, even if none of those WISPs had SMP within the market for provision of internet access in its entirety).

So although there is a risk of consumer harm from the use of traffic management, this would only be one additional factor affecting internet traffic where, even today, all packets are far from equal.

Arqiva therefore suggests that Ofcom review the situation again in 2 or 3 years' time.

Q5. Can you provide any evidence that allowing traffic management has a negative impact on innovation?

See the answer to Q4 above.

Q6. 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?

Arqiva does not have evidence either way, so agrees with Ofcom's preliminary view.

Q7. 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?

Arqiva strongly agrees.

As Ofcom states, when comparing ISPs' tariffs typically the only information made prominently available is price, maximum downlink connection speed and usage allowance. This is akin to cars being sold purely on the basis of price, maximum speed on a race track, and how far a tank of fuel would take you.

Absence of consumer transparency is an obstacle not only to consumers understanding what they're paying for but also tends to act as a barrier to ISPs introducing a wide range of tiered tariffs, offering consumers a choice of experiences for them to choose between. Without a range of packages akin to those on offer for cellular subscriptions, how could consumers select a tariff which was appropriate for their household consumption pattern and the value they place on consuming high bandwidth, delay-sensitive services during peak hours?

But would most consumers be willing and able to take advantage of improved transparency to select the broadband package which would best serve their

household's broadband usage patterns (assuming that no unforeseen new content or service impacted those usage patterns within their minimum contract periods)?

After all, ISPs aren't entirely responsible for the quality of service their subscribers receive, which is also impacted by prevailing contention ratios, where the servers are which content is played out from, and a range of other factors. This isn't an argument against requiring greater transparency from ISPs, merely one for implementing a consumer education programme in parallel combined with research into the effects.

Further, for consumers to have the information to make informed choices between ISPs, they would have to know which ISPs had entered into arrangements to prioritise the traffic of providers of services those consumers particularly valued - something which could be expected to change all the time and which some ISPs and service providers may regard as being commercially confidential.

But whatever future transparency obligations encompass, for these to have the desired effect consumers must face low switching costs and, perhaps, no switching costs where ISPs make "major" unilateral changes (such as blocking access to VOIP services).

Q8. Are you aware of any evidence that sheds light on peoples' ability to understand and act upon information they are given regarding traffic management?

No. Traffic management, and other factors which affect quality of service, are complicated and won't be easy to make subscribers and potential subscriber understand. Ofcom will need to undertake repeated consumer research to determine the best means of getting this across.

Q9. 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?

No examples readily occur.

Q10. How can compliance with transparency obligations best be verified?

To a considerable degree consumer groups and ISPA can be expected to police ISPs' websites, marketing and subscriber communications. However compliance with "the letter of the law" is less important than what consumers actually understand. It will be essential that Ofcom underpin any transparency obligations with a commitment to undertake repeated consumer research to inform revisions to the transparency obligations.

Q11. Under what circumstances do you think the imposition of a minimum quality of service would be appropriate and why?

Arqiva agrees that, as Ofcom has postulated, if the capacity made available by ISPs for a “best effort” tier were reduced to the point where the internet’s historic low barriers to entry were effectively raised, with a reduction in innovation and consumer choice, then there may be scope for Ofcom to use the powers to be granted to it to set a minimum quality of service to address this.