

**VIRGIN MEDIA RESPONSE
TO THE GOVERNMENT'S
DIGITAL BRITAIN INTERIM REPORT**

12th March 2009



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Virgin Media welcomes the opportunity to comment on the Government's Digital Britain Interim Report, issued in January 2009. Our response comprises the following sections:

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Section 1 Virgin Media and Digital Britain

Digital technology now touches every aspect of our lives with a force that is simultaneously transformative and disruptive. At the click of a button, people are now able to immerse themselves in an infinite world of information, news, opinion, innovative services and entertainment. Commercial organisations, government and non-profit groups can reach audiences faster and more cheaply than ever before. Liberated from the shackles of distance and time, new virtual “communities of interest” are being forged in which people participate as both producers and consumers of content. It is no exaggeration to characterize these changes as a revolution.

Virgin Media recognizes the importance of a strong, innovative and dynamic information and communications sector to the wider UK economy and its economic competitiveness in the world. We therefore welcome the Government’s commitment to placing the UK at the forefront of the global digital revolution and its efforts to ensure that - as consumers, citizens and professionals - we quickly harness the full potential of digital technology.

Virgin Media is both frontier and test-bed for the Government’s digital ambitions. At its heart is a sophisticated access network that brings fibre-optic cabling to within a few hundred yards of 12½ million homes up and down the UK. This network is the result of a £13 billion commercial investment, made with the explicit purpose of providing a future-proofed digital platform for successive generations of new retail services.

Virgin Media has delivered on this vision by bringing high quality content, interactive functionality and simplicity to a world that, for many people, is complex and intimidating. Over the last 15 years, we have consistently led the industry with a succession of successful innovations, including the UK’s first residential broadband service; its first high definition TV service and its first genuine on-demand TV service. With the acquisition of Virgin Mobile in 2006, we became the first company to offer a “quad-play” of TV, broadband, fixed line and mobile services. We are currently building on this track record by aggressively rolling out a range of advanced next generation products to millions of consumers.

Virgin Media will play a lead role in Digital Britain. By giving a critical mass of people a genuinely transformational experience, we will build demand for next generation services, stimulate investment and catalyze a step change in the UK’s digital development.

Section 2 A next generation consumer proposition

Virgin Media’s consumer strategy is currently focused on simplifying the digital world and using the inherent strengths of our network to offer people the

freedom to watch, listen, play and create what they want, where they want, when they want. In this context, we are aggressively pursuing the following objectives:

- In the largest network investment since its network was built, Virgin Media last year commenced deployment of a powerful new technology called DOCSIS 3.0. This programme is enabling us to quickly and decisively redefine consumer expectations by taking a next generation experience to both new and existing broadband customers.

By summer 2009, a ground-breaking 50Mb broadband service will be available to 12½ million homes across the UK. During 2009, we will be exploring potential enhancements to the service, including increased “upstream” delivery speeds.

We are also proactively upgrading our existing customers’ service. In late 2008, we completed the migration of our 4Mb subscribers to 10Mb and during 2009 we will be doing the same for all our 2Mb customers. As a result, by the end of 2009, over 3 million Virgin Media customers will experience the benefits of faster broadband. The deployment of DOCSIS 3.0 will enhance the performance and quality of service of all Virgin Media’s broadband products.

During 2009, we will also be introducing a range of value-added on-line services that draw on the inherent capabilities of our network, ensuring that Virgin Media’s broadband customers get the best out of their service.

- Over the last three years, Virgin Media has also capitalized on the unique interactive capabilities of its network to drive the development of a genuine on-demand TV experience.

As a result of this investment, our digital TV customers can now choose from a diverse library containing some 4,600 hours of high quality programming. As part of this initiative, we have also pioneered the IP delivery of on-line services to the TV set by integrating content from the BBC’s iPlayer, Channel 4’s 4oD and ITV.com into our TV service. As a result, our TV subscribers now account for over 30 per cent of total iPlayer viewing. During 2009, we will be working to significantly enhance the service with: a new user interface and improved functionality; advanced search and navigation; new personalized features; and, subject to availability, more high definition content.

- This year Virgin Media will be rolling out a radically revamped on-line portal designed to transform the on-line experience of customers. This will provide a simple but dynamic interface that allows people to draw on the richness of the worldwide web to create a customized environment,

tailored to their personal needs and interests. While this interface will offer a range of exclusive entertainment, such as sporting highlights, it will not be a “walled garden” of proprietary content. Instead, it will be closely integrated with popular interactive on-line applications, such as Facebook. As part of this programme - and subject to the availability of the relevant rights (see page 13 below) - we are also working to incorporate popular catch-up and archive content from the BBC, Channel 4 and ITV into the portal.

- Consumers are increasingly using their mobile phones for not just communication but for entertainment, web browsing and social networking. Virgin Media is working to create an integrated cross-platform experience by integrating these features into its mobile proposition. It is also upgrading its handsets to include more 3G devices with large screens and introducing a range of innovative tariffs, including an unlimited data rate of 30p per day and monthly data inclusive packages.

Section 3 Digital Britain: the policy challenge

Virgin Media acknowledges the Government’s view that market forces may not, on their own, be enough to secure Britain’s digital future. Given the pace of development in other countries, the seismic changes that have taken place across the industry in recent years and a problematic economic climate, we urgently need an integrated policy “roadmap” that brings together and aligns the traditional worlds of broadcasting and telecommunications as they converge.

Where no market failure has been identified, we believe that competition should be given the opportunity to deliver. We nonetheless recognize that in some cases intervention may be necessary. But for such interventions to be effective and sustainable, they need to stimulate and harness - rather than suppress or artificially mimic - commercial incentives. It is also critical that the policy-making process does not inadvertently increase uncertainty and complexity or delay operators’ investment decisions.

At the heart of the Government’s challenge lie two fundamental questions: how can we accelerate the upgrade of the UK’s digital infrastructure; and how can we stimulate investment in content production and our creative industries?

Both are capital-hungry undertakings that require sustained investment at a time when economic models are changing: the decline of traditional advertising revenues - compounded by the growth of copyright piracy - is impacting investment in the UK production sector and the diversity of its output. For service providers, increasing use of the internet is requiring operators to upgrade both their core and local access networks to accommodate the growth of data traffic while preserving their traditional telephony capability. While this is

pushing up the cost of managing networks, the recent commoditisation of telephony and basic broadband services means revenues remain flat, making extensive fibre-based network investments a risky proposition.

In finalising its proposals, it is essential that the Government does not address either of these dilemmas at the expense of the other. Nor should it artificially prop up outdated business models and institutions or pursue policy interventions that inadvertently or otherwise, impose additional costs on the consumer resulting in a slow down in the take-up of next generation services.

The Government's priority must instead be to promote a new, integrated market structure that supports and incentivizes sustainable business models for the content industry and network operators alike and works in the interest of consumers. In this context, the Digital Britain Interim Report identifies the right questions. The devil, however, will be in the detail of answering them.

Unlocking the investment needed to underpin a dynamic and self-sustaining market structure is complicated by a number of factors:

- Prevailing economic conditions have raised the cost of capital significantly: a situation which may persist for some time to come.
- The pace of technological innovation can render new products - and the associated investment - redundant overnight.
- While consumers' appetite for advanced digital products is growing, the extent of demand for next generation products is not yet fully understood. During 2008, for example, the number of new Virgin Media broadband customers choosing a 10Mb or 20Mb service increased from 17 to 54 per cent and, by the end of the year, over 50 per cent of our 3½ million digital TV customers were using our video on-demand (VOD) service on a regular basis, each of them watching an average of 30 different pieces of content per month. However, despite this rapid growth, our understanding of consumer demand for advanced digital services - and their associated economic models - remains embryonic: at the end of the year, some 70 per cent of Virgin Media's broadband customers were still on its 2Mb service and, despite growing demand for faster speeds, across the market as a whole the average revenue from a broadband subscription has fallen in recent years; pay-per-view still accounts for only a small minority of on-demand viewing; and, as yet, no market has been established for VOD-based advertising.

Despite these issues, significant commercial investment in both content and digital networks is taking place. Government policy must encourage such investment and ensure that any intervention is focused tightly on areas where stimulus is needed. As well as triggering competitive investment across the

industry, the consumer response to Virgin Media's ongoing roll-out of advanced digital services will quickly provide invaluable insight into these areas by helping us better understand the underlying economics of next generation services and therefore the potential extent of market-led investment.

Section 4 Policy priorities

Against this background, Virgin Media's engagement with Digital Britain is focused on three policy imperatives:

- Catalyzing a cycle of investment that drives the development of the UK's digital infrastructure and ensures it is capable of meeting the needs and aspirations of both consumers and service providers.
- Ensuring that a diverse range of high quality content is available from a choice of providers on terms that unlock the full consumer benefits of competition.
- Striking an appropriate balance between the internet's traditional status as an open and uncensored environment and the need to optimize customers' experience, develop new digital services and combat illegal activity as the digital age gathers pace.

These imperatives are addressed in the balance of this document.

Investment in digital infrastructure

(i) Next generation broadband (Digital Britain action points 1-6)

Virgin Media shares the government and Francesco's Caio's conviction that we need to be proactive in planning the development of the UK's digital infrastructure and identifying barriers to investment: we cannot allow insufficient broadband capacity to inhibit innovation; nor - as both Ofcom and the Government recognize - should we allow half the UK to remain perpetually stuck in the slow lane while the other half moves into a next generation digital world.

We also support the Government's view that any public sector intervention needs to be proportionate and based on a rigorous assessment of consumer demand and how far market-led investment will take us.

While demand for next generation services is embryonic, consumption of bandwidth is growing exponentially. Among Virgin Media customers alone, average monthly data consumption has grown by an average 81 per cent from 4.7 to 8.6Gb since the middle of 2007. There is, moreover, no sign that demand has peaked: according to Cisco, requirements for data will quadruple by the

end of 2011, driven largely by the growing popularity of web-based video applications such as the BBC's iPlayer.

So how much will be enough? Based on current consumer trends, the Government's forecast of widespread demand for speeds of around 20Mb by 2012 coincides with the assessment of the Broadband Stakeholders' Group and is clearly realistic: in 2008 alone, the number of subscribers to Virgin Media's own 20Mb "XL" service grew by some 70 per cent to over 400,000.

In densely populated parts of the country, it is already clear that commercial investments will deliver these kinds of speeds by 2012. In December 2008, Virgin Media announced the roll-out of a ground-breaking 50Mb product to 12½ million homes by the end of 2009.

It is equally clear that Virgin Media will not be the only provider of next generation broadband products in the market. We anticipate that the majority of BT's £1½ billion network investment programme will be focused on laying fibre to the cabinet in high density areas which overlap our own "footprint". Within these areas, the market for broadband services will continue to be fiercely competitive. We therefore welcome Ofcom's recent statement on super-fast broadband and, in particular, its recognition that there is no distinct market for next generation broadband and consequently no basis for regulating operators other than BT at this point.

Market-led investment in next generation access networks will not necessarily be limited to high density urban areas. In November, Virgin Media announced a desire to extend its network coverage for the first time in over a decade. Our internal analysis has identified some 450,000 additional "infill" homes whose proximity to our existing access network makes them a potentially compelling commercial opportunity.

In addition, we also believe that as many as 20 per cent of the UK's households in less dense urban areas not currently served by Virgin Media's network represent - within the right regulatory environment - a potentially viable opportunity for next generation broadband, if the right commercial context and partnerships could be put into place. Virgin Media is currently working to evaluate a range of such opportunities. To fully understand the commercial feasibility of such an investment, however, we need to understand better the extent of consumer demand for (and, therefore, the underlying economics of) next generation broadband. Virgin Media's aggressive roll-out of progressively faster broadband services across its customer base is designed to provide precisely these insights as quickly as possible. Establishing the viability of new revenue-generating on-line services and business models will also be critical.

Against this background, the Government should assume that, by 2015, market-led investment could bring next generation broadband capability to

around three-quarters of UK homes. There nonetheless remain some 25 per cent of homes in more sparsely populated areas where the underlying economics are such that market-led investment in next generation access is unlikely. While we remain keen to explore opportunities to extend our coverage on a national basis, it is these areas on which the Government should focus its planning in the short term. Any intervention must be fair, proportionate and pragmatic. More specifically:

- Intervention should not directly or indirectly distort existing and developing competitive markets or (given the varied demand for broadband services) inflate broadband prices to the point where take-up is discouraged.
- Intervention should not undermine historical investments or discourage future investments.
- Intervention should not explicitly or by implication, favour a particular technological solution or operator.
- Intervention must take account of operational realities. In this context, Virgin Media notes the Government's commitment to explore wholesale solutions based on allowing service providers access to primary infrastructure. The Government should not under-estimate the formidable operational barriers to such solutions. In many cases, for example, in order to minimize build costs, ducts that were laid to carry underground cabling are narrow and already severely congested or full. Likewise, in many cases, the pavement connection boxes that connect the ducts to a customer's premises were designed specifically for particular technologies and a major civil engineering programme would be required to replace or upgrade them.
- In this context, we note Ofcom's recognition in its recent statement on super-fast broadband of the existence of such issues in relation to BT's network and its conclusion that access to ducts "does not appear to be an effective immediate solution to competition in fixed access networks".
- Intervention should not, directly or by implication, constrain the ability of market participants to secure the financing to underpin investment or to form cost-sharing partnerships that might support more aggressive investment.

(ii) Universal access (Digital Britain action points 17-18)

Virgin Media considers the Government's proposals for a new broadband universal service commitment a timely policy objective. When the UK's original universal service obligation for internet access was set at 28.8Kb, the vast

majority of people used the internet for little more than web-browsing and e-mail. The exponential growth in recent years of more sophisticated and time-sensitive applications, such as video streaming, means that the existing obligation may no longer meet the original intent of “functional internet access” under the European Universal Services Directive.

It is therefore both pragmatic and in the interest of social inclusion that the Government revisits this question. The universal availability of a “fit-for-purpose” broadband service will: support the work of the new Cross-Government Digital Inclusion Team and underpin the wider delivery of increasingly sophisticated, innovative and personalized public services such as those outlined in the Government’s recent Public Services On Your Side paper; stimulate the creative industries by providing an efficient platform for monetizing content across large populations of consumers; and, by enabling the wider use of more sophisticated on-line applications, be a potential catalyst for the kind of consumer demand needed to underpin market-led investment in next generation access networks.

The Digital Britain Interim Report tentatively proposes a universal service commitment of 2Mb. It also acknowledges that this should be subject to a cost-benefit analysis.

This assessment needs to be rigorous and squarely focused on the “real world” usefulness of different delivery speeds and the particular kind of services the government wants to encourage. In this context, Virgin Media believes a reliable 1Mb connection (with a 256Kb “upstream” capability) would support commonly-used e-Government services such as NHS Direct, DVLA’s online car tax service, job or training searches through Jobcentre Plus, HMRC’s online filing service, as well as other more interactive applications and basic video-streaming. We are also mindful that advances in compression technology have historically significantly reduced the bandwidth required for many important applications.

While broadband speeds of 10Mb and above will deliver significantly enhanced functionality and genuine consumer benefits (particularly in terms of visual quality), we are yet to be persuaded that a 2Mb connection is necessary to enable under-served consumers to use key services. We therefore question whether, at this point, the benefits of a 2Mb universal service commitment are proportionate to the significant additional investment - and potential subsidy - it would imply. This is, however, clearly a dynamic question which may need to be re-visited as usage and applications evolve.

Implementation of a new broadband universal service commitment should be closely tailored to the outcome of the Government’s cost benefit analysis. It must be focused, exclusively and precisely, on under-served areas and avoid distorting existing competitive markets. It should also be pragmatic, exploiting

the technology solution - or combination of solutions - that represent the most simple and cost-effective way of addressing these areas. Any funding mechanism should: be fair and proportionate to the costs of implementation; allow for an acceptable rate of return which will encourage further investment; and reflect the respective commitments and benefits of different parties.

The Government should also be mindful that the costs of its universal service commitment do not, given the current variance in broadband demand, risk indirectly inflating prices to the point where take-up is discouraged.

(iii) Media literacy (Digital Britain action point 22)

Virgin Media welcomes the Government's recognition that broadband availability is only one part of our challenge. Ofcom research suggests there are profound non-economic and cultural barriers to both the adoption and utilization of broadband and that these are more pronounced within particular socio-demographic groups. This was graphically illustrated by a recent partnership between Virgin Media and the e-Learning Foundation designed to provide free broadband connections for 12 months to children in socially excluded communities. Despite the provision of extensive training and support, the project revealed a deep-rooted reluctance amongst many families to participate in the scheme. In this context, Virgin Media will continue working to build a society with the skills and confidence to get the best out of digital technology.

Investment in digital content (Digital Britain action point 10)

The digital age is testing traditional business models throughout the media, broadcasting and communications industries. Nowhere is this more apparent than in the creative industries, where the proliferation of alternative entertainment platforms has driven a dramatic decline in TV broadcasters' advertising revenues, historically a critical source of funding for the UK production sector. Combined with an explosion in the unlicensed copying and distribution of copyright material, this poses a significant threat to both the quantity and diversity of the UK's creative output.

A pipeline of high quality content is critical to consumers and service providers as well as the creative industries. Access to a wide range of affordable, high quality entertainment and content represents perhaps the most powerful incentive for consumers to embrace digital technology and services. Virgin Media, therefore, shares the Government's interest in finding a market structure that provides a sustainable business model for the content industry. The critical elements of such a market structure include:

(i) A financially sustainable public service broadcasting (PSB) sector to target funding on a diverse and clearly defined category of content

The UK's public service broadcasters have historically been a cornerstone of its diverse and distinctive cultural landscape. They have also been a critical source of funding for the creative industries. In this context, Virgin Media notes the Government's proposals to create a new public service broadcaster with the structure, scale and financial strength to maintain investment in a range of distinctive British content and compete with the BBC.

Whatever shape the PSB sector may ultimately take; however, it is critical that the activities of all publicly-supported broadcasters are complementary to a dynamic, enterprising and competitive commercial sector. As the digital age unfolds and the PSB sector evolves, we need a renewed focus on some well-established but important principles:

- Content that was originally produced with direct or indirect public subsidy should be made available to all distribution platforms on fair and non-discriminatory terms.
- Virgin Media recognizes that commercial programming - and, in particular, the commercial exploitation of archive PSB content - has a potentially useful role in subsidizing the costs of producing content designed to fulfil public purposes. It is critical however that the remit of PSBs' commercial operations is clearly defined; subject to independent and transparent governance mechanisms; and exposed to the same regulatory scrutiny as any other commercial broadcaster. Nor should any cross-subsidy exceed levels where commercial content investments, requiring market-based returns on capital, are implicitly discouraged.
- It is equally important that, in meeting their public service obligations, PSB broadcasters do not stray into activities that, inadvertently or otherwise, distort existing competitive markets or undermine commercial investment. In this context, Virgin Media is not persuaded that the BBC's existing governance arrangements provide sufficiently rigorous and consistent scrutiny of the Corporation's existing and future activities.

On this basis, Virgin Media would welcome the opportunity to discuss with the Government and Ofcom the potential market impact of any specific proposals involving a consolidation of one or more PSB broadcasters.

(ii) A sustainable solution to on-line copyright piracy

Virgin Media's views on this issue are summarized on page 15 below.

(iii) The rapid development of new advertising revenue streams

While Virgin Media recognises the Government's desire to ensure the quality and editorial integrity of UK programming is not compromised by product placement, we are disappointed that the Government has not taken the opportunity to reconsider the UK's approach to this issue, given the many safeguards that could be applied.

Equally important, however, will be the development of new advertising models for on-demand applications. While the traditional TV channel has an important place in Britain's digital future, the rapid growth of Virgin Media's on-demand TV service shows that non-linear programming is fast becoming a mainstream feature of many consumers' TV diet.

This trend is likely to gather momentum with the emergence of more IP-based on-demand TV services, including that envisaged by the BBC in its recent Canvas proposal. Some of these services will be delivered on a subscription or pay-per-view basis. But it is vital to both the creative industries and service providers that we quickly establish a range of alternative consumer-friendly funding models. In this context, Virgin Media is currently working closely with the Broadcasters' Advertising Research Board and a number of technology suppliers on a consumer trial to explore how we can effectively integrate advertising into our on-demand TV service without detracting from the strong appeal of the service.

(iv) Effective mechanisms to ensure the widespread distribution of key content across the full range of digital distribution platforms

Digital technology has spawned an array of new and efficient platforms for distributing content to large populations of people. The commercial operators who use these platforms to provide retail services have a powerful incentive to improve or differentiate their consumer proposition with attractive content. Intense competition between these companies represents a powerful and efficient mechanism for the content owners to exploit their assets and maximize the return on their content investments. It also provides a powerful incentive to commission new and distinctive material.

However, this competitive market has, in some cases, promoted exclusive distribution models that involve potentially problematic concentrations of attractive content that confer on their owner the ability to unfairly compromise competitors by: withholding key content from other operators; restricting competitors' ability to offer it to customers at a competitive rate; or artificially inflating prices. As the Digital Britain Interim Report acknowledges, widespread and affordable access to a diverse range of high quality entertainment is among the most important drivers of digital take-up among consumers. Confidence that

“must have” content will be available on fair and non-discriminatory terms is also a pre-requisite for investment in digital distribution platforms.

Mechanisms are therefore needed to identify and address quickly any such concentrations. There are two particular categories of content that, by virtue of their exceptional capacity to influence consumer behaviour, merit particular attention.

- Over the last decade, premium sports and movies have consistently been one of the key drivers of take-up in the UK’s pay TV market. Due to a well-established customer base of over 9 million subscribers BSkyB has again and again been able to outbid its competitors when the rights to this content are sold. As a result, it has accumulated 100 per cent of “first run” movie rights and some 80 per cent of premium sports rights by value. This concentration has enabled BSkyB to withhold its sports and movie channels from some competitors and provide them to others at an uncompetitive rate, in standard definition only and without important interactive functionality.

Following a lengthy review, Ofcom last year concluded that there are deep-rooted structural problems in the UK’s pay TV market and proposed a “must offer” wholesale regime under which BSkyB would be obliged to sell its sports and movie channels to competitors at a regulated price. While Virgin Media considers Ofcom’s proposals an important step in the right direction, there are some significant issues that remain unresolved.

- In relation to sports, the scope of the proposed regime - which is limited to channels including live FA Premier League (FAPL) football - is too narrow. Independent research emphatically demonstrates that subscribers value a wide range of sports and, unless addressed, BSkyB will be left in a position where it can easily undermine the proposed wholesale regime by migrating valuable non-FAPL sporting action onto channels that are not covered by the wholesale obligation and can therefore be withheld from potential competitors.
- It is not currently clear how Ofcom’s proposed wholesale regime will address the fact that, as a result of BSkyB’s contractual arrangement with the major studios, there is currently no market for subscription on-demand movie services, despite evidence of latent consumer demand.
- The wholesale regime leaves unaddressed BSkyB’s overwhelming advantage in the acquisition of premium rights, which was vividly illustrated in the most recent auction for the broadcast rights to FAPL matches for the 2010-2013 seasons.

- A rigorous enforcement mechanism will be needed to ensure that any problems in its implementation are identified and addressed quickly.

Virgin Media believes the quickest and most appropriate way to deal with those issues would be to refer the issues associated with BSkyB's advantage in the acquisition of premium rights (and, in the absence of an effective wholesale regime, wider competition issues) to the Competition Commission for a full market investigation.

- PSB catch-up and archive programming accounts for a disproportionate amount of viewing in the embryonic market for on-demand TV. This content therefore has a strategic significance in the Government's digital ambitions: ensuring its widespread availability across multiple distribution platforms will be critical in driving consumer demand for next generation digital services.

Virgin Media recognizes that commercial exploitation of these valuable assets has a potentially important role in the future funding of PSB broadcasters. These organisations' commercial activities must, however, be subject to the same regulatory controls as any other commercial operator. As a result, Virgin Media welcomes the competition authorities' timely intervention in response to BBC Worldwide, ITV and Channel 4's recent Kangaroo joint venture proposal. It is important that any future initiatives involving an aggregation of this strategically critical content receive equally rigorous scrutiny. In particular, the Government's proposals for a consolidation within the PSB sector must not result in a market where one player has exaggerated control over this unique class of content.

In this context, Virgin Media notes with interest the BBC's recent Canvas proposals to create a set of technical standards and, it is suggested, a common user interface for the IP delivery of on-demand programming to the TV. While Virgin Media acknowledges the potential consumer appeal of this proposal, it is not yet clear how the BBC and its partners propose to address critical elements of the service. In particular, it is important that:

- The standards are compatible with Virgin Media's DOCSIS 3.0 technology, as well as the DTT and digital satellite platforms. It is not currently clear whether or not this is envisaged.
- The initiative does not develop in a way that gives the BBC and its partners control, or the ability to exert undue control, over a standardized universal interface.
- Any such technical delivery mechanism does not become an interface or exclusive "gateway" to valuable catch-up and archive PSB content,

On the contrary, any such content delivered through such an interface should be made available to competing platforms on fair and non-discriminatory terms.

Against this background, it is critical that the BBC Trust's assessment of the Canvas proposal includes a rigorous and objective assessment of its impact on other operators and the market as a whole. Virgin Media would welcome wider regulatory scrutiny of the potential implications of Canvas for competition.

Network management and customer behaviour

The transformative power of digital technology owes much to the principle that the internet is an open, uncensored and unmanaged environment to which consumers and content providers alike have equal and unfettered access. Virgin Media is firmly committed to protecting the freedom and privacy of its customers. However, as the majority of citizens become more dependent on digital technology - and more inventive in the way we use it - the limits of this principle are being tested against a range of complex commercial and social issues. Virgin Media is keen to lead a wide-ranging public dialogue around these contentious and emotive questions.

The rights and responsibilities of ISPs in managing their customers' on-line behaviour are buried in a complex mosaic of overlapping laws, regulations and codes of practice. Many of these - notably the Regulation of Investigatory Powers Act 2000 and the European E-Commerce Directive 2002 - were developed at a time when use of digital technology was far less widespread and sophisticated than it is today. As a result, their interpretation has yet to be fully tested against the changing realities of the digital age.

Ultimately, however, these are not questions of legal nuance but of customer opinion and confidence. The public's attitude towards the management of their on-line behaviour is far from unanimous. A vocal group of activists aggressively assert that a wholesale erosion of consumer rights is underway and there is some evidence that this perception has - at least partially - permeated mainstream consciousness. However, it is not clear whether this has yet translated into a rigid opposition to any form of control over consumers' on-line behaviour.

Over the last year, this challenge has been thrown into sharp focus by a number of specific issues.

(i) *On-line copyright infringement* (Digital Britain action points 11-13)

The proliferation of sophisticated peer-to-peer (P2P) file sharing applications represents a significant threat to the creative industries. Virgin Media has consistently sought to be a progressive voice in the P2P policy debate and to work collaboratively with rights holders, their representative bodies, other ISPs and policy-makers. In July 2008, for example, our public announcement of a large scale letter-writing campaign to educate specific customers in response to notifications from the British Phonographic Institute (BPI) significantly raised public awareness of unlawful file sharing and - notwithstanding significant public controversy - injected critical momentum into the policy debate. More recently, we have worked closely with the Government on the development of its Memorandum of Understanding on on-line copyright infringement and have actively engaged with the subsequent working groups to explore alternative approaches to tackling unlawful P2P activity among our customers.

A sustainable answer to this problem will require the support of a broad swathe of consumers. Given the exceptionally fast-moving and adaptive nature of the problem, heavy-handed punitive enforcement strategies will be ineffective, rapidly outdated and polarize (rather than align) the interests of the consumer, rights holders and internet service providers (ISPs). We believe a workable solution has two elements.

- A “baseline” obligation on ISPs to support rights holders in the enforcement of their legal rights against the worst categories of offenders. In principle, we therefore accept the Government’s proposal to introduce such a legislative obligation and will work closely with the relevant authorities on its further development. The costs of implementing this obligation should be allocated in accordance with the expense and benefits of implementing the regime for ISPs and rights holders respectively.
- The development of new, commercial consumer offers that provide mainstream consumers with a rational and affordable alternative to illegal file sharing and reflect their increasing demand for on-demand content in flexible formats. As a result, Virgin Media has been engaged in intensive discussions with the UK music industry about the development of an innovative on-line music subscription service. We are confident that an agreement is feasible and that, given the right conditions, this service will: benefit consumers; establish a new and sustainable source of revenue for both parties; and underpin a significant reduction in on-line copyright infringement on Virgin Media’s network by aligning the interests of Virgin Media, participating rights holders and a critical mass of consumers.

However, continuing uncertainty about the future scope of ISPs’ legislative obligation has created significant obstacles to progress on the development of

new consumer offers. Virgin Media therefore urges the Government to urgently eliminate this source of uncertainty by clarifying its legislative proposals as quickly as possible and to focus on establishing a simple and pragmatic framework for implementation, enforcement and cost sharing. We are concerned that the Government's proposed rights agency will have the opposite effect, injecting complexity and bureaucracy to the process. We instead suggest that Ofcom should be given formal responsibility - within a clearly defined set of objectives - for developing whatever guidelines, codes of practice compliance mechanisms are needed to implement an orderly and efficient regime.

(ii) Targeted advertising

There is growing interest in a new generation of on-line services, such as targeted advertising and personalised browsing recommendations, which involve anonymised monitoring of an individual customers' on-line activity.

While these services are controversial, Virgin Media believes their deployment could enhance some consumers' on-line experience and help underwrite investment in next generation infrastructure and applications. During 2008, Virgin Media has been evaluating Phorm's highly-publicized personalized on-line advertising technology but has yet to decide whether or not to deploy it across our network.

(iii) Other issues

At the heart of the debate about P2P and targeted advertising are some common questions about the respective rights and responsibilities of ISPs and their customers. Similar issues are inherent in a number of other contexts:

- The architecture of residential broadband networks invariably means that their bandwidth capacity is shared among multiple users. As a result, even the most sophisticated networks can get congested at busy times of day. Unless service providers manage this congestion pro-actively, for example by prioritizing particularly time-sensitive applications such as video-streaming, the performance of an individual customer's broadband can deteriorate significantly. As more and more content becomes available on-line and the popularity of applications like YouTube and iPlayer grows, demand for bandwidth is increasing exponentially and emphasizing the need for this type of anonymised "traffic management".
- Meanwhile, as networks become more and more congested, there is also an embryonic appetite for network operators to offer prioritized delivery of particular content owners' services.

- The worldwide web provides quick and easy access to an infinite array of on-line services and entertainment. But the internet's unmanaged status has also made it a versatile and powerful medium for illegal behaviour. As a result, internet service providers (ISPs) are coming under increasing pressure to identify and block websites that contain illegal material, such as child pornography or racist propaganda. Some policy-makers and interest groups are going further by calling on ISPs to take action against sites that, while not strictly illegal, feature "harmful" content, such as graphic violence.
- As use of the internet grows, network operators are now facing calls to focus not just on particular kinds of material but on the on-line behaviour of individual customers. In their efforts to combat crime or enforce their legal rights, government, law enforcement authorities and third parties are all turning to ISPs to pro-actively monitor, intercept, prevent or disclose information about customers' on-line behaviour in relation to particular types of activity.

Virgin Media welcomes the Government's recognition of the role of traffic management and new business models in driving network investment. We need however an integrated, consistent and forward-looking approach to all these issues. As the UK's leading provider of residential broadband services, Virgin Media is committed to promoting an inclusive dialogue and broad-based consensus about future management of the internet. In the context of such a dialogue, we will argue that some extension of ISPs' freedom to monitor and manage their consumers' on-line behaviour is necessary but that this needs to be exercised within an unambiguous framework of controls and supported by an appropriate enforcement mechanism. Any such approach must also recognise the importance of consumer privacy, to which Virgin media is deeply committed. The Government has an important role in leading this debate and, where necessary, providing further clarity around the legal interpretation of key legislative provisions.

Section 5 Conclusion

In order to harness the transformative potential of digital technology, we need to find a policy framework that does more than simply mimic our analogue past. Virgin Media is playing a leading role in this process by putting the inherent power of its fibre-optic network in the hands of the consumer, by exploring new models for delivering content-rich, personalized services and by making the digital world an orderly and safe environment where consumers and content owners can operate with confidence.

We believe that the Government should support Virgin Media by: ensuring that its broadband proposals do not undermine our past infrastructure investment or our plans to develop and extend our network; ensuring consumer demand for

next generation services is not stifled by a lack of accessible high quality content; and by taking a pro-active role in redefining the rights and responsibilities of network operators and consumers in the digital age.

We look forward to working with the Government, regulatory authorities our customers and the industry to secure Britain's digital future.

Virgin Media
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