



**BBC response to DCMS Consultation
“Digital Communications Infrastructure
Strategy”**

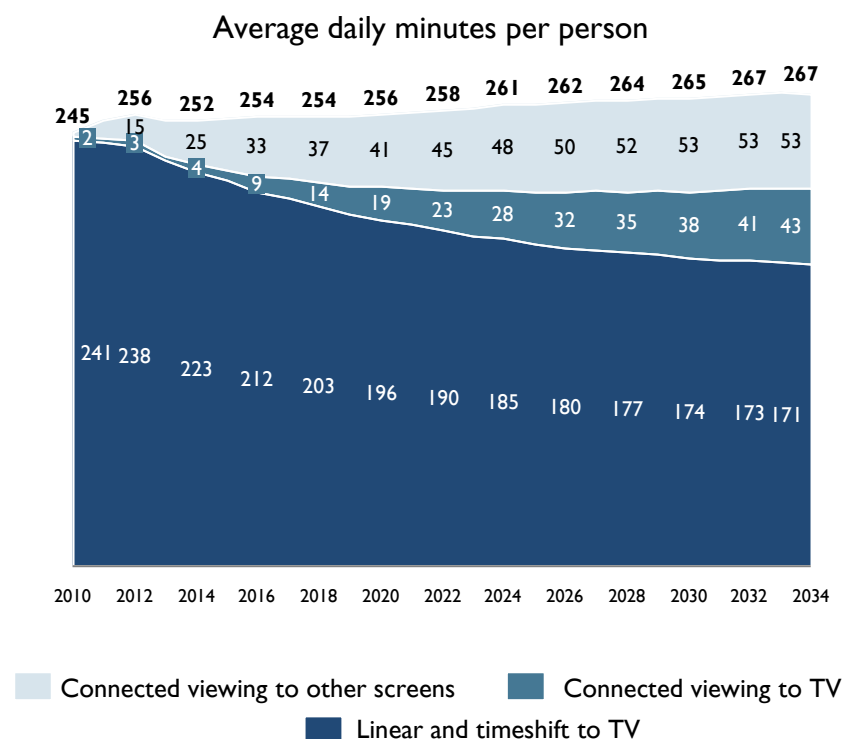
Introduction

The BBC welcomes the opportunity to respond to DCMS's consultation, 'Digital Communications Infrastructure Strategy', published on 6 August 2014.

This submission sets out a number of observations on the changing patterns of audience demand for content and services, the implications for digital infrastructure and areas where a co-ordinated industry and public policy response may be required to either remove barriers or maximise benefits.

Changing Pattern of Demand

Driven by generational shift, the penetration of broadband and the widespread availability of smartphones and tablets, the rise in IP-based media consumption will likely be pronounced over the coming ten years. The extent to which new forms of consumption will be incremental to traditional linear viewing or substitutional is not clear. The chart below suggests we are likely to see both a growth in the overall level of daily Audio Visual (AV) consumption as well as a decline in traditional TV viewing.

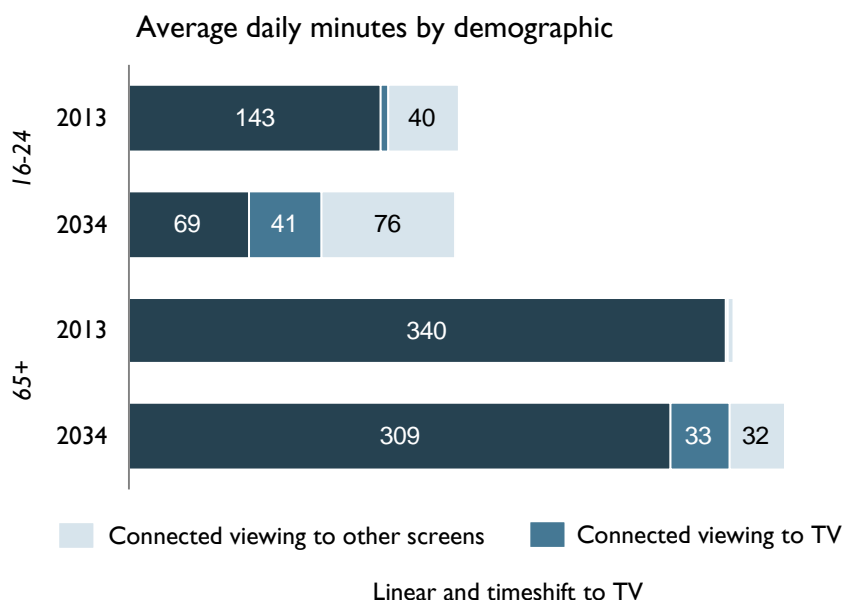


The proportion of viewing which will be consumed by linear broadcasting will remain relatively high in the longer term. However, this proportion will vary by audience group with a bigger shift away from traditional linear viewing by younger audiences (see below chart).

We are seeing what appears to be a structural shift in the media consumption habits of younger audiences. 16-24s are watching 13% less TV than four years ago¹. Non-linear TV viewing is growing – currently 28% of average daily viewing for 16-24s, and we expect it to reach 40% within a few years. 25% of viewing by 16-24 year olds is to catch-up on other screens. Over the next few years we expect that to reach 40%².

¹ Source: BBC Audiences analysis of BARB data (2013 vs 2010)

² Source: Enders Analysis



The way in which audiences are watching programmes is changing in part due to the widespread availability of connected devices. An increasingly significant proportion of video (and media more generally) is consumed online with, for example, a threefold total increase in iPlayer requests between 2009 and 2013.

47% of requests for TV programmes to BBC iPlayer now come from mobile and tablet devices whereas three years ago that figure was just 7%³. Ofcom data⁴ similarly suggests that the overall share of Video on Demand (VOD)⁵ requests coming from tablets increased from 3% to 12% between 2011 and 2012.

Ofcom's data also shows that just over half (56%) of tablet owners use their device for watching AV content; the most common are streamed TV programmes and films. Moreover, more than half (57%) of tablet AV content viewers say they watch linear TV on a weekly basis and a similar proportion (54%) say they watch catch-up TV weekly on their tablet.

These audience shifts are the context for the BBC's strategic priorities to end of this charter period including:

- Serve all audiences by making our TV channels even better - while changing the way we deliver content and services (for example the replacement of BBC3 with a new online service, subject to Trust approval) to address changes in viewing habits of some audiences; and
- Innovation online – BBC iPlayer, which has been a great success in encouraging audience viewing on a catch-up basis, being reinvented to become a place where audiences can go to discover new content as well as catch-up on linear broadcasts.

³ BBC iStats data

⁴ Ofcom Communications Market Report, 2012

⁵ Requests for catch-up viewing (i.e. viewing within a limited window after a broadcast transmission) via BBC iPlayer is a sub-set of all VOD (which also includes on-demand viewing of archive content).

Distribution Principles

The BBC has a clear approach to making content distribution decisions. We start with the audience 'ends' we are trying to achieve and then consider the best distribution 'means' to achieve them.

In our view, a number of key principles should guide the distribution of BBC and PSB services more generally:

- Universal availability – the concept that public service content is available to the maximum possible number of UK households;
- Consumption of those services being affordable to access and free at the point of use;
- Provision of high quality services including ability to innovate and meet audience's evolving needs;
- Services are easy to find and discoverable by users;
- Unmediated access between PSBs and their viewers to minimise the risk of 'gatekeepers' controlling access to content; and
- Value for money and cost effectiveness of investment.

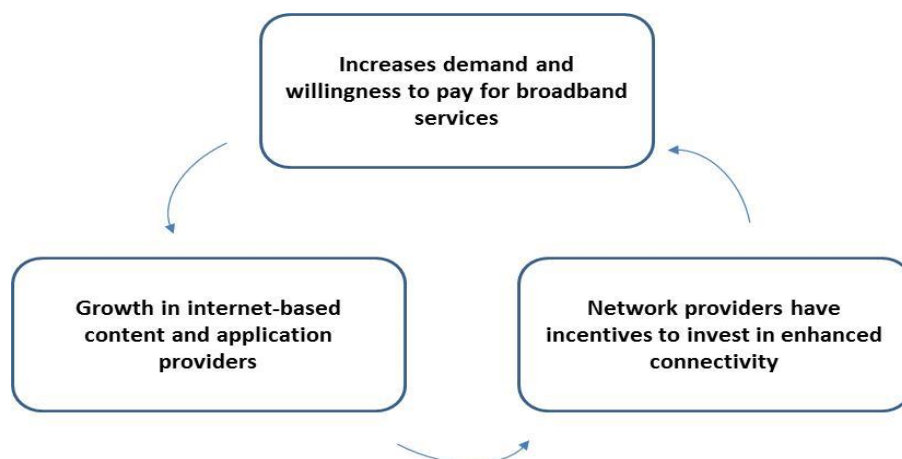
Different distribution methods have different costs and benefits and these may change over time. In making distribution choices and long-term investments, we assess the best ways of delivering our content judged against the above principles and in response to changing audience needs and technologies.

Infrastructure such as fibre networks or spectrum does not have an inherent value in itself. Its value (social and economic) depends on the extent to which it enables the deployment of high value services. In other words, the greater the use of available infrastructure the greater the value it will deliver.

Our view is that currently the best way of delivering linear PSB services to audiences on a universal basis is through the free-to-air broadcasting networks, including via the UHF spectrum allocated to DTT. At the same time, we recognise the need to meet the growing appetite for new and innovative forms of consumption made available via IP-based networks.

The internet offers low barriers to entry and "innovation without permission". This has allowed new entrants to scale rapidly and become some of today's most well-known companies. The open internet has been a successful engine for innovation and growth, carrying mutual benefits for users, CAPs and network providers.

This 'virtuous circle' is set out below:



The BBC plays a key part in incentivising the take-up and usage of broadband to enhance the value created by the UK's digital infrastructure. Our content helps to drive demand for networks and data services and allows us to serve audiences in new and different ways. One tenth of internet users say that BBC Online was one of the main reasons behind their decision to go online. Thirteen per cent of iPlayer users say it is a reason they got home broadband in the first place. The British public leads the world both in the adoption of the internet for e-commerce and in accessing creative media.

That is not a coincidence. Great programmes, free at the point of use, have created the conditions for others to thrive online⁶.

IP-based AV services will become more accessible to some consumers through hybrid terrestrial/IP services, such as YouView and the introduction of the connected Freeview platform. This hybrid DTT/IP platform will combine the benefits of high quality universal linear broadcasting with IP delivery of FTA VOD content.

There is the real potential for IP-based networks to become a much more important distribution mechanism for BBC services. Digital infrastructure capable of meeting increasing demand for linear and VOD services could offer significant benefits for viewers. For example:

- *All audiences can get content when and how they want it*

Audiences could access their favourite programmes and services seamlessly across multiple devices, when and how they want them;

- *Many will benefit from completely new and compelling forms of content*

While there will, for the foreseeable future, always be a place for linear long-form narratives, some audiences relish the new opportunities of interactive, personalised content;

- *Some will want to create and share their own content*

New applications are emerging that combine the social potency of YouTube, Facebook, Flickr, and Snapchat; and

⁶ In October 2014, the CEO of Netflix, Reed Hastings, credited BBC iPlayer with 'blazing the trail' and getting people used to on-demand viewing 'long before Netflix'

- *There may be scope for enhanced delivery of linear services via multicasting, with potential for personalised streaming*

Moreover, a move to universal take-up of broadband could deliver significant wider economic and social benefits for the UK, including:

- Savings for Government with increased take up of e-Government services – ultimately offering savings of c£5.5bn⁷ if take up was universal;
- Enhanced opportunities for UK businesses to market and sell products and services online. Estimates suggest that universal take up of broadband could add £63bn to UK GDP⁸;
- Access to cheaper commercial deals (through, for example, access to better information and price comparison services) with benefits potentially accruing to the worst off in society; and
- Reduction in social isolation and improved engagement with communities.

Digital Infrastructure Requirements and Policy Implications

In order to deliver these benefits, a number of technical and policy challenges would need to be overcome.

A number of these challenges may be overcome through the market alone. However, there are some issues that would likely require co-ordinated action from government, regulators and industry. The focus of policy so far has been on infrastructure roll-out and there is a case for a re-balancing towards addressing demand-side issues.

Coverage and capability

The near-universal availability of high speed broadband would be key in ensuring that an IP network could replicate existing coverage levels for broadcasting (for example, DTT at c98.5% for PSB) and consumer expectations for the range of content choice and technical quality of services. We note that the Government has set a target to reach 95% coverage by end of 2017 and 99% by end of 2018, although the latter is not yet funded. It is important that the most cost-effective solutions are identified and funded by the market as far as possible.

For most, a fibre to the cabinet (FTTC) network may be necessary to achieve sufficient download speeds. However, our initial analysis suggests that FTTC will likely only be available to 95% of households by 2023. Furthermore, of these households it is unlikely that all will have the bandwidth required for IPTV. For those homes, the distance between the cabinet and the home may be too long to provide sufficient bandwidth to guarantee a high quality IPTV experience.

Cost of distribution

On-demand streaming works well overall today but distribution of linear TV via IP would create significantly higher network loads than hybrid distribution (combining the broadcast

⁷ Internal BBC research

⁸ Booz & Co “The Case for Universal Digitisation”.

reception of linear services with IP delivery for on-demand streaming). The extent to which the impact on IP distribution costs – and therefore retail costs - will be manageable largely depends on network scale economies and incremental costs. The availability and use of multi-cast networks and the cost of content delivery network infrastructure will be material factors. Access for content providers to delivery across ISP networks, without gating or other economic constraints, is an important consideration.

Reliability

Current digital broadcast platforms set a high bar for reliability. End-to end IP network infrastructure would need to be largely free from downtime and speeds would need to be consistently maintained at levels high enough to meet demand-side needs.

Universal take up of broadband

There should be a focus on promoting ever greater take up and usage of internet services to ensure that the value of physical assets is maximised. As the digital delivery of services gathers pace in sectors ranging from broadcasting to banking, the pace of internet take-up is slowing down.

At present, 16% of the adult population are offline – c8.5 million people who are not deriving the significant benefits that the internet offers.

According to the government's own figures⁹, nearly 6 million adults will be offline in 2020, a full 1.2 million higher than the government target.

There are significant demand side issues preventing full take-up of broadband services. The four most common reasons given for remaining offline being to do with lack of need; lack of access to a computer; lack of knowledge of how to use the internet, and affordability.

The take-up of super-fast broadband in (while growing fast) was at 16% in 2013 despite 73% availability of networks across the UK¹⁰. £1.2 billion of public money has so far been spent – including £300 million from the licence fee - supporting the roll-out of this infrastructure and greater utilisation is required in order to generate a return on that investment.

The attraction to viewers of linear and on-demand PSB services over the internet, for example, could provide significant incentives for greater use of broadband and for those currently offline to become connected. This is an area that requires further debate.

Prominence of and access to PSB content will remain a priority in an IP world

Delivering the benefits of PSB in an IP world, and helping to drive take-up of data services as suggested above, depends on the production of high quality and distinctive content. In turn, PSB investment in production depends on the wide availability and discoverability of PSB programmes and services – a virtuous circle.

⁹ Booz & Co “The Case for Universal Digitisation”.

¹⁰ Ofcom communications infrastructure report, October 2013: <http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/broadband-speeds/infrastructure-report-2013/>.

Regarding access, PSBs must be able to reach audiences effectively across any type of platform that has a significant number of end-users – satellite, cable or IP. There should be no payments to platforms, which amount to a diversion of funds away from UK content investment. Regulation should apply where needed to enable competition, innovation and investment.

For linear PSB channels, EPG prominence rules have also played an important part in this virtuous circle. To reflect market developments and audience expectations, it is time to update the regime. Firstly, to capture the discovery and curation of PSB on-demand programmes and services on on-demand menus (not only the traditional linear EPG). Secondly, to ensure enforcement is clear and robust across linear and on-demand.