



BBC's Response to Ofcom's Consultation on Review of  
Sky's Access Control Services Regulation

## Ofcom Review of Sky's Access Control Services Regulation – BBC Response

### Introduction and Executive Summary

1. The BBC welcomes the opportunity to respond to Ofcom's consultation on the review of Sky's Access Control Services Regulation [REDACTED].
2. The BBC has a long-standing commitment to the provision of interactive TV services (such as enhanced TV accessed via the Red Button) alongside its linear broadcasts. We are strongly of the view that the feasibility of BBC Red Button services on Sky depends on access to Sky Application Programme Interfaces ("APIs"), which we do not believe we would be able to secure on appropriate terms, if at all, without regulation. Our reasons are set out below in response to the consultation questions.
3. The BBC does not support Sky's call for regulation to be removed. The main points of our response are that:
  - **BBC Red Button is a widely used and valuable service for audiences** – reaching on average one third of the digital TV audience every week, including over 7 million Sky subscribers. Although the number of providers using Sky's APIs may have reduced since the Continuation Notice was introduced, consumer demand for BBC interactive services has increased and continues to do so.
  - **The BBC expects to maintain its commitment to interactive services well beyond 2016 through both broadcast BBC Red Button and a gradual transition to Connected Red Button ("CRB")** – Any move towards more open standards on the Sky platform and greater use of broadband delivery could increase demand from interactive services providers for Sky APIs.
  - **Interactive services via the internet are not an effective substitute** – not least because they cannot provide the on-screen link from linear TV to the interactive domain and in the BBC's case half of Red Button users do not use BBC Online.
  - **We are not aware of any effective alternative way to deliver Red Button on Sky except through access to its APIs** – To trigger an interactive service, whether over broadcast or broadband, access to Sky's APIs will remain crucial.
  - **The BBC's negotiations with Sky suggest that, absent regulation, third parties would find it difficult or impossible to agree reasonable terms for access to Sky APIs.**
4. In addition to responding to the consultation questions we also respond directly to some of the issues raised in Sky's submission to Ofcom (see "Observations on Sky's letter to Ofcom"). In particular we note that Sky has not substantiated its arguments around the cost and innovation impact of the current regulations in any detail. The BBC is firmly of the view that any costs which Sky incurs in making its APIs available are adequately recouped via the charges levied on content providers. Furthermore, if (as Sky contest) the Continuation Notice is ambiguous in light of technological developments, we believe they would be best clarified through updated wording in replacement access conditions, including to confirm that new and emerging

functionality useful for the delivery of interactive TV services such as Connected Red Button is also covered.

5. In conclusion, the BBC does not support Sky's assertion that the Notice is unnecessary and we do not consider the arguments advanced by Sky in anyway adequate to justify the removal of a Notice which delivers a clear consumer benefit. **We believe that Ofcom should: retain the Continuation Notice for now; commit to replace it with access conditions after a second round of consultation; and confirm that any future Sky functionality suitable for the delivery of IP interactive services is covered by the regulations.** We would expect that any next stage of consultation would also take the Government's wider policy objectives on retransmission fees into account as appropriate.

## Response to Consultation Questions

### (Q1) Do respondents agree with our description of the interactive services currently available and the potential developments over the next two to three years?

6. The BBC agrees with Ofcom’s analysis of the interactive services currently available and the potential developments over the next two to three years. We expect interactive services to continue to grow in popularity and consequently demand for them, and innovation relating to them, to last well beyond this period. Under this question we set out the traditional BBC Red Button service in more detail and plans for the next few years.

#### *Red Button*

7. BBC Red Button is an interactive service available on TV platforms across digital terrestrial, satellite and cable television. It offers a selection of on-demand digital text available 24-7 and scheduled audio and video content. Content is accessed from the BBC’s linear TV services by pressing the red button or ‘text’ on the remote control. By virtue of the close link to prominent linear public service channels, the Red Button provides prominent access to public service interactive and on-demand content which may not otherwise be easily discovered. A full list of its features is provided below.

*Figure 1: Availability of the components of traditional Red Button by platform*

<b>Red Button Component</b>	<b>Description</b>	<b>Sky</b>	<b>Freesat</b>	<b>Virgin</b>	<b>Freeview</b>
Red Button Homepage	Welcome page first displayed to viewers when Red Button is pressed on a BBC linear service. Contains a menu with the main Red Button destinations	Yes	Yes	Yes	Yes
Digital Text Service	On-screen text service, containing information about News, Sport, Weather, Travel News, Lottery, etc.	Yes	Yes	Yes	Yes
Interactive Applications	Interactive applications used to enhance BBC programming. This includes games aimed at CBBC and CBeebies viewers, ‘play-along’ functionality for selected quiz programmes and alternative audio soundtracks.	Yes	Yes	Yes	Yes
Enhanced TV (eTV) Streams	eTV streams are full screen television streams used to enhance coverage of BBC programmes and events. This includes expanded coverage of major television events – such as alternative tennis courts at Wimbledon or alternative music stages at Glastonbury.	At least 1 stream, more for major events	At least 1 stream, more for major events	At least 1 stream, more for major events	At least 1 stream, more for major events

	Programming complements the main programming on the linear BBC channels.				
Access to iPlayer	On demand and live streamed content	No [REDACTED]	Yes	Yes, but live content on TiVo only	Yes (Freeview HD-series boxes only)

8. The BBC uses enhanced TV stream functionality most heavily during major events when there are many varied activities (e.g. the Olympics, Commonwealth Games and BBC broadcast music events) or where large events clash (e.g. summer sports and music festivals). For the London 2012 Olympics, the BBC offered an additional 24 SD and 24 HD streams via Red Button on Freesat, Sky and Virgin Media<sup>1</sup> (also accessible on the EPG on these platforms and via the BBC website). This reflected the extraordinary demand for this event and the BBC's commitment to breadth and depth of coverage. For Glastonbury and Wimbledon 2013 we offered a combination of extra HD and SD streams across all four platforms via the Red Button.
9. Outside these periods the eTV streams are used for content that deepens linear programming such as interactive play-along features for quiz shows games, behind-the-scenes footage and spin-off material, additional coverage of sporting events, or other additional material editorially related to linear TV (and in some cases, radio) programming.
10. Reflecting the advances in broadband technologies, IP connectivity was used for the first time as part of BBC Red Button delivery in 2009, enabling the service to offer improved functionality as well as to discover more content from BBC Online. A fuller IP Bridge was added to connected Freesat and Freeview HD devices in 2010, allowing users to link to both iPlayer and a range of other content experiences including BBC comedy and music showcase pages. In 2011 access to iPlayer through Red Button was enabled on Virgin TiVo. Whilst access to iPlayer is currently available on Sky+HD devices, this is not accessible via the Red Button resulting in a sub-optimal experience for audiences.
11. In addition, Red Button allows the BBC to cater more fully for niche audiences, alongside our core offer, helping to overcome scheduling constraints and limits of the BBC's broadcast capacity. For example:
  - Around major events such as Wimbledon the BBC has been able to procure extra spot capacity to allow delivery of an expanded number of video streams.
  - Text-based news and other services provide a useful supplement to subtitles, providing text which those with hearing impairment can read in their own time outside of real time programming windows.

[REDACTED]
12. By providing additional and often more detailed content, BBC Red Button increases editorial possibilities and facilitates deeper engagement by audiences with public service material. By encouraging audiences to 'press red' it nudges them to explore 'on

<sup>1</sup> Capacity constraints on Freeview prevented the streams being offered on that platform.

demand' and 'lean forward' media experiences, introducing them to a more interactive mode of viewing and exposing them to a broader range of digital services.

13. Traditional Red Button will continue to be important for audiences for the foreseeable future and well beyond 2016, as set out below, not least because uptake of Connected Red button will be gradual to begin with due to low levels of uptake of high speed broadband and the number of legacy devices in the market. The audience value of traditional Red Button services is set out below in answer to question 2.

**(Q2) Will the services using Sky's APIs continue to be provided for the next two to three years? Do you anticipate volumes increasing, decreasing or remaining stable? Please explain your reasoning.**

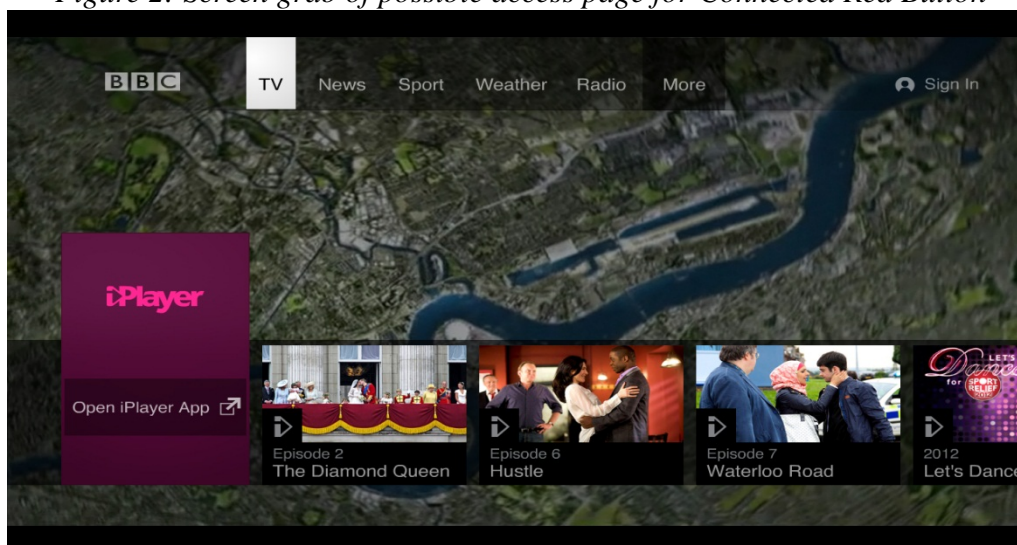
14. As described above, the BBC's Red Button service is a core element of the BBC's service offer to audiences. **As such we are committed to continuing to deliver and develop Red Button services for the foreseeable future and well beyond 2016.** Our response to this question sets out our plans for connected Red Button and the evidence of audience demand for and appreciation of Red Button services. The Red Button services will continue to need access to both the application signing services and for Connected Red Button the authentication services.
15. The broadcast Red Button service is a mature product which continues to be maintained and developed as an active platform. It has a loyal and growing audience. Although the BBC recently refocused its provision of eTV streams more closely on national events and periods of high demand, reducing overall broadcast costs, work continues to develop and extend other use of the platform, including for innovative content provision.
16. In particular, we are expecting to continue supporting traditional Red Button for at least 5 years and certainly beyond the 2016 end-date suggested by Sky in their submission [REDACTED]. Continued access to Sky's APIs is therefore vital for both Red Button services, and the BBC is concerned that the identification of 2016 as an end-date risks deterring innovation by creating uncertainty about support after that date.

### ***Connected Red Button***

17. As the consultation paper recognises, the growth in connected smart TVs and broadband enabled STBs provide greater opportunities for enhanced TV services. The BBC is currently undertaking a programme of work to update the Red Button services for a broadband world and our aspiration is that this functionality should be available to licence fee payers with a TV connected to broadband (either directly or through a set-top box or other connected devices).
18. Connected Red Button will use the two-way relationship possible over IP to provide deeper interactive experiences, allied to linear TV, on the main household TV screen. In particular, it will cohere live broadcast with access to BBC Online content and functionality more fully than has been possible in the past due to capacity and spectrum constraints, providing the following example features on top of the existing Red Button service:

- enable 'big screen' TV expressions of BBC Online products
  - connect BBC TV channel audiences to BBC Online products through the Red Button launch point; and
  - enable calls to action from presenters and triggers using on-screen graphics from linear programmes to the appropriate online products, e.g. a news story on BBC One linking to background material.
19. Users will have a simple dashboard that overlays broadcast BBC TV or Radio, offering enhanced TV and radio content through editorial picks, featured content, [REDACTED], entry points to the full-screen versions of the BBC's products for a more immersive experience including BBC News, Sports and iPlayer. CRB will provide an additional way for users to discover existing BBC content, [REDACTED], check the lottery results, and catch up with the news & sport in text and video [REDACTED].
20. As with the current version of BBC Red Button there will be broadly two types of product experience: overlay on linear TV (e.g. weather forecast) for 'snacking' and breadth of content; and full screen offers (e.g. the previous night's episode of Eastenders programme via iPlayer). The look and feel of the offer will evolve over time, but today the proposition appears as set out below.

Figure 2: Screen grab of possible access page for Connected Red Button



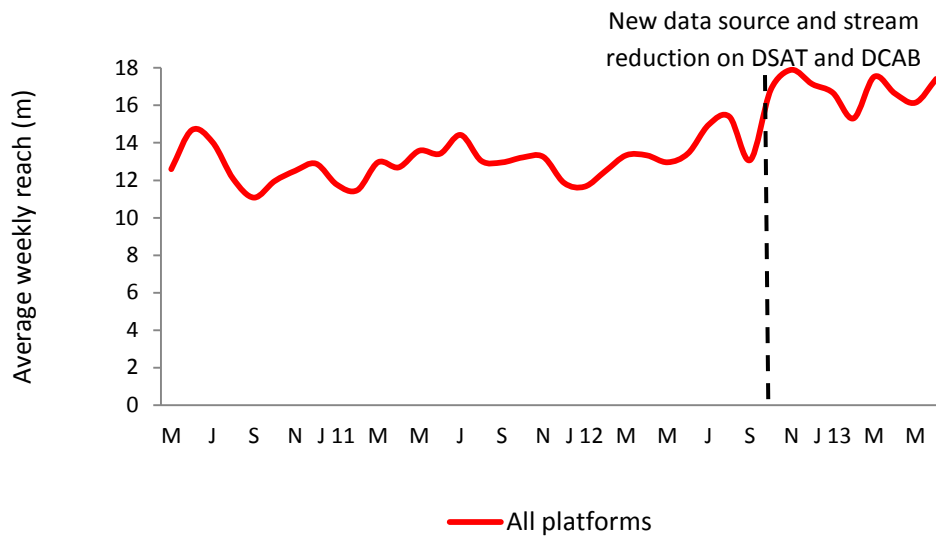
21. We believe these features will deliver significant additional audience value and are working with a range of platform providers to secure access / facilitate delivery via their set top boxes.
22. [REDACTED including footnote].
23. [REDACTED], the fact that Sky operates a closed platform which does not follow wider industry standards means there are significant additional costs for the BBC in ensuring the technical compatibility of its CRB offering on Sky's platform. [REDACTED] It is clear to the BBC that to provide CRB on Sky we will need access to Sky platform APIs.



[REDACTED including footnote]

### **Audience Value of BBC Red Button**

24. We remain committed to Red Button services, not just because of our public service commitments, but because audiences value them highly and use them in large numbers. Claimed weekly reach of BBC Red Button averaged at a substantial 16.6madults across the United Kingdom in the first half of this year, equivalent to approximately one third of the total UK adult digital TV audience.



Source : BBC, CMI Survey

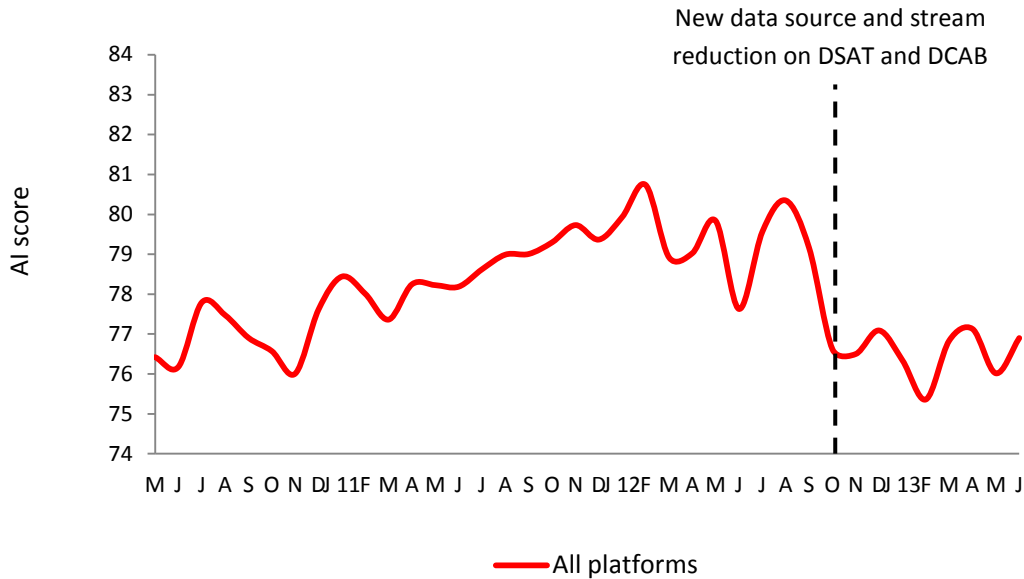
[CHART PARTIALLY REDACTED]

25. [REDACTED].

26. Audience appreciation for Red Button is equally strong, having ranged in the high 70s in recent years [REDACTED] and has generally been very consistent across platforms. For context, BBC Online achieved an appreciation score of 78 in Q2 2013 compared with 77 for Red Button over the same period.<sup>2</sup>

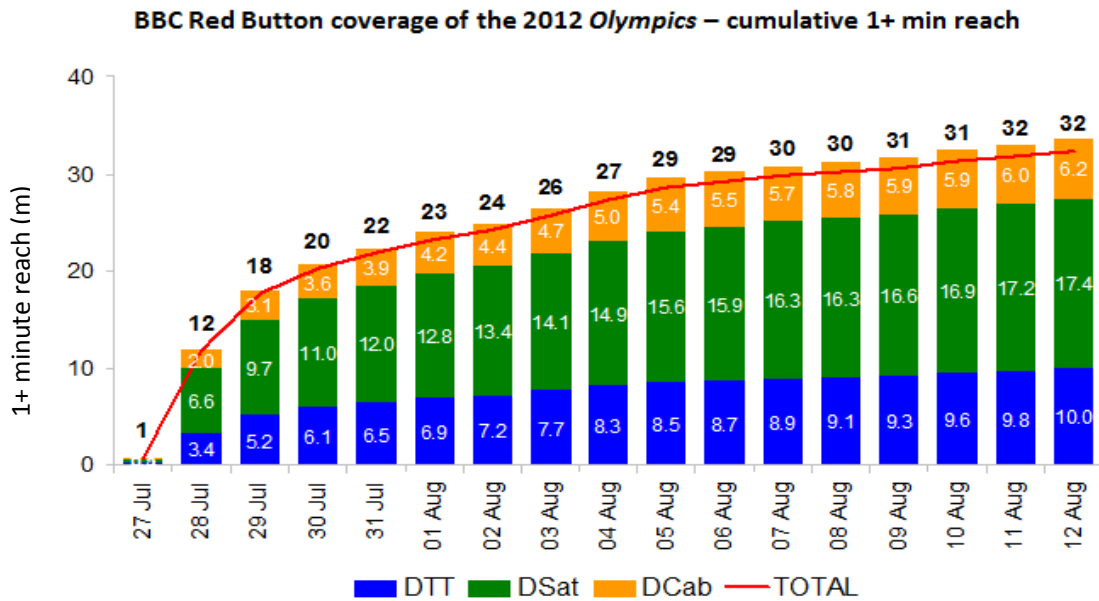
<sup>2</sup> We note a structural break in Appreciation Index scores in October 2012, which we believe is due to a change in data source used. We believe that the layout of the old survey emphasised the top end of the 1-10 scale, resulting in slightly inflated scores – a facet of the design which has been corrected in the new survey. In addition, the old panel of respondents had a greater number of people with children and weighted those respondents higher than is now nationally representative – a reduced number of parents in the current sample has depressed results for CBBC/CBeebies and with it overall figures.





The survey uses the question, "Could you please rate each of the following services with a mark out of 10, where 10 is the highest score." This score out of 10 is referred to as an AI score. The overall AI score for BBC Red Button services is calculated from an aggregate of all the individual services and scaled out of 100. Source : BBC/CMI Survey, [CHART PARTIALLY REDACTED]

27. Crucially, Red Button shows additional popularity when used to deepen and broaden the BBC's coverage of national events. A good example is the London 2012 Olympics, where as a result of the 24 additional video streams in SD and HD available on DSAT and DCAB we saw cumulative reach of 32m viewers on Red Button over the period (56% of the TV population) and an Appreciation Index value of 87.
28. BBC analysis suggests that there were in excess of 100k viewers for every stream, indicating a separate audience value for each. Notably, Sky delivered the most viewers to the expanded Red Button service, both in absolute terms (17.4m satellite viewers in total) and as a proportion of its customer base (around 60% of Sky subscribers). Our analysis reveals a huge spike in Red Button video usage in this period, up from an average of ~5m viewers each week in the first half of 2012 to 13.5m in August 2012.
29. Similar trends apply to other major events, including for Wimbledon 2013 and Glastonbury 2013 where the uplift was substantially higher on DCAB [REDACTED] which offered more streams than Sky [REDACTED].

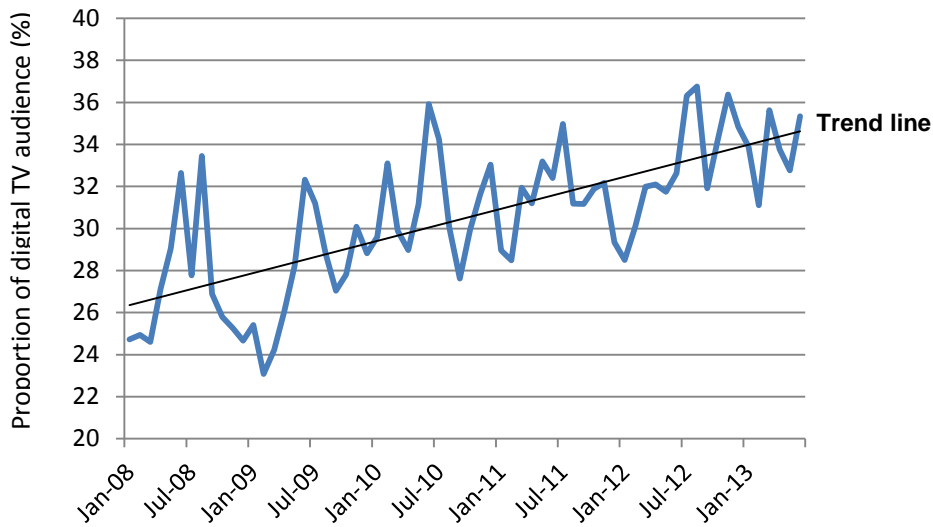


Source: BARB

### *Increasing demand*

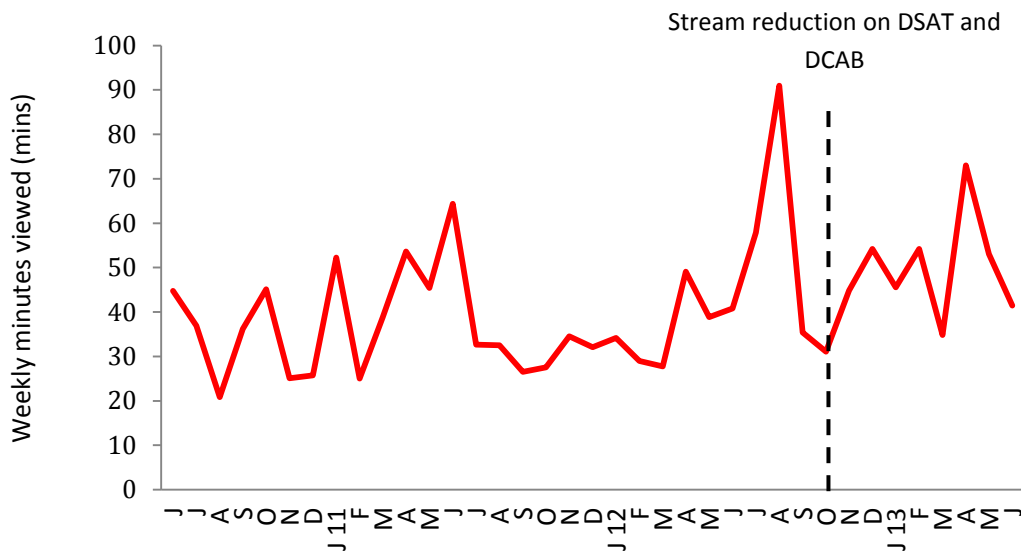
30. In addition to the strong reach value we have seen in recent years, the trajectory over time is increasing – claimed reach of Red Button doubled between 2004 and 2011 from 10.3m to 20.4m monthly users. Furthermore, weekly reach averaged on a monthly basis has risen from around 25% of the UK adult digital TV audience in early 2008 to more than 35% at present, an upwards trend which we believe demonstrates the enduring and increasing value of high quality interactive TV services provided beside linear TV on the main household screen. It is notable too that demand has become more stable over time, indicating the well-established role that Red Button plays in the BBC’s public service provision and the level of audience loyalty it attracts. Therefore whilst it may be true that the number of providers using Sky APIs for interactive services has fallen, consumer demand for the services that remain is healthy and rising.

**Red Button reach over time - all platforms**



31. Time spent on Red Button is equally healthy. In 2013, audiences using BBC Red Button video streams watched for an average of around 45 minutes per week, a figure which rose sharply to 91 minutes in August 2012 over the Olympics, demonstrating the considerable potential we believe interactive TV has to go further in broadening and deepening user experiences. Indeed, the spike was not as pronounced for DTT (the Olympics streams were only available on DSAT and DCAB), indicating the considerable foregone consumer value from not providing the full Red Button offer on that platform.

**BBC Red Button – average weekly minutes of video viewed**



Source: BARB

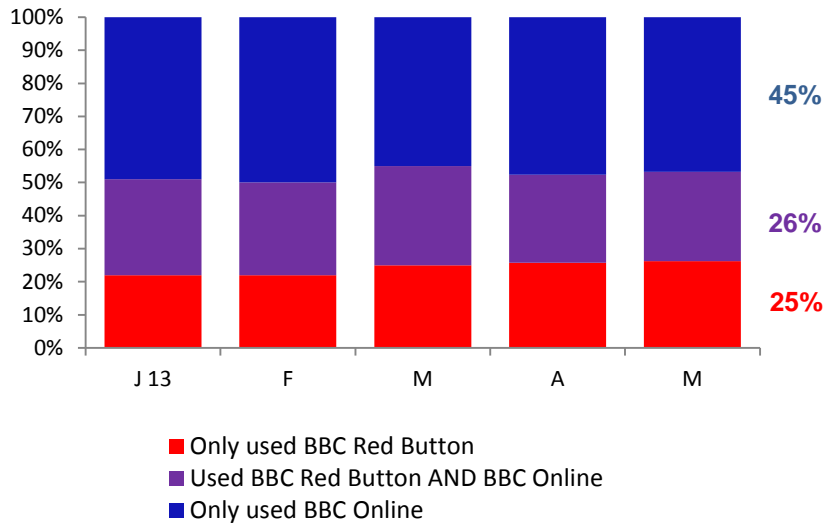
— All Digital

*Potential for increasing demand*

32. We expect demand for Red Button to remain constant or increase over the next two to three years, in spite of the growth in second screen devices, because of the unique proximity of Red Button to linear broadcast together with the simplicity of the interface and high levels of familiarity among audiences. Beyond that timeframe we expect usage to remain high particularly if enhanced functionality of Connected Red Button services is available on the Sky platform.

**(Q3) To what extent are there alternative means for the delivery of these different services? To what extent would alternative delivery represent a substitute for Sky's APIs? If they do not, why is that?**

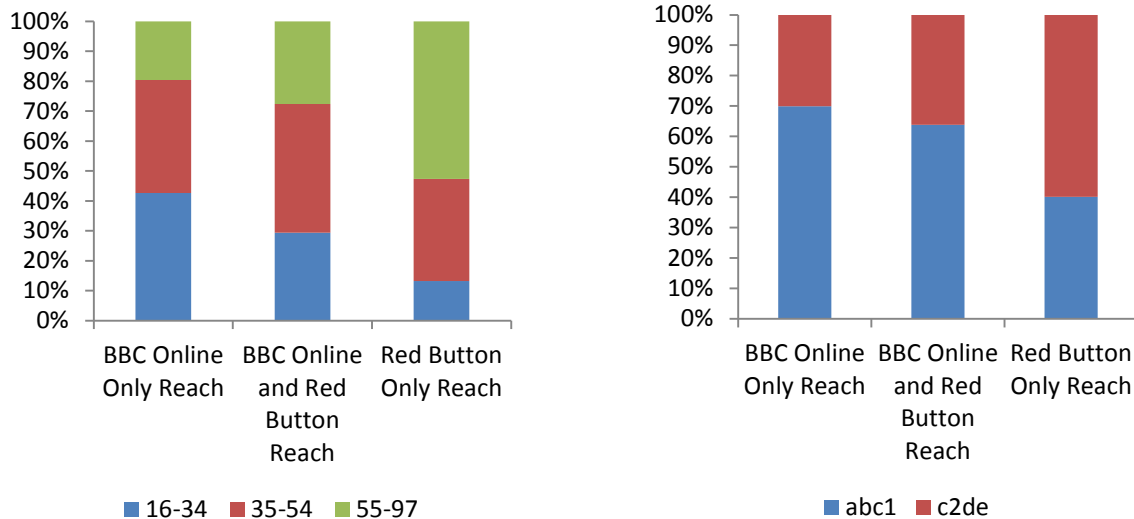
33. We do not believe that there is an alternative to providing access to Red Button services (i.e. via an on screen link activated by the remote control from linear broadcast to interactive content) to viewers on Sky's platform other than via access to the Sky APIs. The BBC uses Sky platform APIs for video/audio switching capabilities within OpenTV applications, allowing users to navigate through to additional content (text, video and/or audio) that support programming on the linear broadcast channels. The Sky platform APIs are also used to derive additional information regarding the current state of the set-top box, and access to the OpenTV middleware enables a browsing environment suitable for rendering multimedia (text, graphics and video) on screen.
34. The use of the red button on the remote control has with the BBC's support, contributed to the creation of a well-established multi-platform brand that signifies a call to action that can be easily delivered and executed across all major TV platforms. Research for the BBC suggests that some 72% of all adults report awareness of the Red Button brand. From one simple instruction, viewers can consistently and immediately be transported to the BBC Red Button bridge which then provides onward access to a rich seam of content, all without leaving the TV environment.
35. Second screen devices offer a potential solution to delivering enhanced content to viewers but would require all viewers to own a suitably IP-connected second screen device. Relying on second-screen delivery would also lead to a fragmentation of the user experience meaning there would no longer be that simple, synchronised and unified 'call-to-action' from the linear broadcast stream.
36. From a public value perspective, it is significant that the audiences for Red Button and BBC Online do not substantially overlap; therefore suggesting that content from BBC Online delivered to PCs or second-screen devices could not serve as an effective substitute for Red Button. Indeed, in an average week, as the next chart shows, half of BBC Red Button users do not visit [bbc.co.uk](http://bbc.co.uk) at all.



Question: BBC Red Button and BBC Online 'used in the last week' (average by month)

Source : BBC/CMI survey

37. Furthermore, as shown in the chart below, audiences that only use Red Button and not BBC Online also skew older and towards households with lower incomes - compared with those that use BBC Online or both services. As such, exclusive Red Button users are more likely than internet-only or mixed users to be older, less 'tech savvy' and/or less well-off individuals who may derive value from the BBC's interactive content but either lack internet access or the relevant skills or indeed, simply prefer to receive their interactive TV services on the main TV screen.



Source: CMI Survey, based on week 1-26 2013

38. We believe there is a particular value in having enhanced content close to the BBC's linear broadcast services on the main screen, which is large in size and well established as a focus for media use in the home. By providing interactive content synced to the linear schedule and the particular programme the user is watching, Red Button allows material to be provided which is editorially appropriate to the broadcast programmes concerned and within a BBC environment, ensuring continuity of user experience. In

addition, the Red Button call to action is prominent and well understood. In contrast, mobile and tablet devices, whilst offering many advantages in terms of portability and functionality, are smaller in size, need to be powered up separately and lack the simple Red Button call to action so recognised by many including the least technologically savvy.

39. Whilst content on mobile or tablet could in principle be synced with the broadcast offer protecting continuity, to work effectively syncing would likely require access to Sky's APIs just as at present – thus sustaining or increasing demand for access to Sky's APIs. In our view, audio-visual recognition technologies, which could in principle allow syncing through other routes, do not yet represent a viable mass market alternative which is cost effective for broadcasters and are not technically suitable in the context of live broadcasting.
40. While so-called 'digitally native' media users may be confident making use of second-screen functionality, this may not be the case for the majority of the population. Research by Ipsos Mori for the BBC suggests that many users, particularly in older age groups and from lower socio-economic groups, face confidence and skills barriers in relation to the internet. A large number of households who use Red Button on Sky could therefore be excluded from enhanced TV services if these were not offered on the main TV screen.
41. Finally, we do not regard EPG listing of the BBC's Red Button streams as an effective substitute for the full Red Button offer. To access additional broadcast streams through the EPG users must come out of the programme they are watching, disrupting continuity of the user experience. We also note that the EPG on Sky's platform is not capable of providing access to text content, only video and audio, with the result that the BBC's Red Button offer would be much reduced if provided through the EPG. Furthermore, as the existing Ofcom EPG Code does not cover interactive services, it is not clear to the BBC that we would be able to secure prominent EPG slots, commensurate with the public service value of the content concerned. Indeed, it is not clear that we would be able to secure access at all given the difficulties we had in securing additional HD streams on Red Button for Wimbledon 2013 and Glastonbury 2013.

**(Q4) To what extent has the existence of current regulation been relevant to negotiations? Please explain your reasoning and provide any evidence you might have to support your position.**

42. [REDACTED] The BBC's funding model, remit and requirement under its Charter and Agreement require it to deliver its content as widely as possible in a range of convenient and cost-effective ways. The access control regulation therefore ensures a more reasonable and balanced negotiation and a framework from which to determine the cost base relative to other platforms.
43. Regulation ensures the BBC can access important APIs on FRND terms in order to be able to deliver the interactive content to all Sky users in an easily accessible manner linking from the BBC's portfolio of channels. [REDACTED].

44. We are concerned that an unregulated market could increase costs for interactive services [REDACTED]. Thus continued regulation of Sky access control services is a vital first step in ensuring continued PSB access on reasonable terms. Furthermore, Ofcom will be aware the Government “wants to see zero net charges where the fees for access to the main platforms and for PSB channels cancel each other out”<sup>3</sup>. We therefore expect that any next stage of Ofcom’s consultation on replacement access conditions would take these wider policy objectives into account as appropriate.

**(Q5) What are your views on your ability to secure access to Sky’s access control services in the absence of regulation and your reasons for that view?**

45. [REDACTED] We believe that the removal of regulation would significantly alter the BBC’s negotiating position, rendering it much more difficult to deliver value for money for licence fee payers. Recent negotiations with Sky suggest that it would be hard to agree terms in such a scenario.
46. [REDACTED].
47. [REDACTED].
48. [REDACTED].
49. Sky has offered to commit to providing existing access to interactive services until 2016 in the event that the Continuation Notice is not replaced. However the BBC is concerned that the absence of a longer-term commitment signals Sky's intention to withdraw the existing functionality beyond that date, or to radically alter the terms on which it is provided. We believe this supports our view that, absent regulation, we could not ensure equitable or indeed any access to the Sky platform for interactive services. Any increase in fees could divert licence fee payers’ money from UK-originated content.
50. The BBC does not accept Sky’s view that uncertainty over the scope and application of existing regulation constitutes reason to remove these regulations without replacement access conditions. Rather we see this as providing compelling justification for ensuring that existing regulation is updated so as to continue to be fit for purpose in light of clear and significant technological developments over the 10 year period since the regulation was put in place by Oftel.

**(Q6) What are your views on the type of interactive services that consumers may expect to access in the next two to three years? Are you planning or are you aware of new services in the pipeline which may require access to Sky’s APIs? If so, describe the nature of the services in question, when provision of those services could begin and why access is required. What constraints are relevant in the development of new interactive services?**

51. In our view audiences have an ever-increasing expectation of the level and breadth of interactivity available from media services. [REDACTED].

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<sup>3</sup> DCMS, “Connectivity, Content and Consumers”, (July 2013)



52. We are exploring a range of enhancements with Sky to the existing Red Button service on their platform [REDACTED]. These are all developments which require access to Sky's APIs and would increase the diversity of content available through Red Button, catering too for niche audiences more effectively than is possible at present.
53. The BBC's plans for Connected Red Button [REDACTED] are set out in detail above. To implement Connected Red Button on Sky the BBC would need to access Sky's APIs, [REDACTED including footnote].
54. Whilst full data is not yet available for Connected Red Button (only Virgin TiVo has the interface at present), early evidence suggests that audiences continue to value the Red button highly in an IPTV world. For example, during Wimbledon 2013 the BBC's IPTV application for Sport was accessible from a number of places on the TiVo platform (including the 'discovery bar' on the home page and the 'Apps & Games' menu) but the Red Button was by far the most popular point of entry, accounting for an overwhelming 93% of visits.
55. [REDACTED].
56. [REDACTED].
57. This [REDACTED] cannot account for unforeseen innovations which could create a much wider range of services requiring access to Sky's APIs – innovations which could be hampered by uncertainty about continued regulation of access control services. Furthermore, as set out in more detail below, the BBC is of the view that were Sky to adopt more common industry standards (reducing the need for costly bespoke technology adjustments to BBC interactive offerings) this could facilitate additional innovation.
58. For these reasons, the BBC believes that continued regulation is required, allowing for the provision of interactive services beyond Sky's stated date of 2016. We believe that replacement access conditions should be formulated with a view to confirming that any functionality which Sky may in the future develop that could facilitate the delivery of interactive services (e.g. Connected Red Button) on its platform, is covered by the conditions. In relation to the return path, for example, this would serve to further the intentions of the Continuation Notice, which covers authentication services.

**(Q7) What platform software developments, relevant to the delivery of interactive services, do you anticipate in the next two to three years? What influence will that have on the type of interactive services that can be provided and how they are provided, including alternatives to requiring access to Sky's APIs?**

59. We anticipate that, due to market developments, Sky may soon move to more open standards including fuller use of the Ethernet port and a possible open-standards browser based on HTML5. This would allow a much fuller range of interactive services to be provided on Sky and in new ways including over the top. We believe it is firmly in the consumer's interest to share such functionality with third parties and that this will be difficult to achieve without regulation.
60. The Sky platform is commonly described as closed. When Sky first developed its set top boxes in the late 1990s it chose OpenTV, a C based programming language, as the

middleware. The OpenTV API wraps all the hardware functions including data transmission. Licencing costs for the intellectual property in the OpenTV system, and the restricted nature of documentation and knowledge of the API calls, mean that content providers often incur additional costs to adapt their technology to the platform.

61. As a result, we believe that Sky's OpenTV has not benefited fully from technological developments, including the increased prevalence of apps written in HTML5 that can be ported easily across platforms or devices. In particular, some developers may pass over the Sky platform rather than needing to: employ a relatively under-utilised programming language; comply with Sky's various technical and commercial requirements; and sign up to Sky's contractual terms in relation to platform operation.
62. If the Sky platform were more open, the development and testing costs noted in its submission could well decline, given the availability of portable programming languages and a reduced need to develop bespoke technology. Also, greater openness to the internet could reduce the demands on broadcast and PVR hard-disk capacity as a greater proportion of content could be sourced over the top as required. These changes would reduce any compliance costs associated with the regulation.
63. Crucially, the BBC believes that third parties will continue to require access to Sky's API to deliver their services in the event that Sky move to a more open platform. For example, if Sky adopt an open-standards HTML browser, it is likely the BBC would need access to its APIs to deliver an over-the-top Connected Red Button service, at the very least for playing out the Red Button trigger which acts as the bridge from broadcast to IP delivery. Indeed similar behaviour is required and used already on the more open Freeview and Freesat platforms in launching from the broadcast world of MHEG into the HTML ecosystem for Connected Red Button.

#### **Observations on Sky's letter to Ofcom**

64. In addition to responding to the specific questions raised in the consultation we would like to take this opportunity to respond to some of the points raised by Sky in its submission to Ofcom.
65. The BBC has contracted with Sky which authorises the BBC to develop, broadcast and run interactive Red Button applications across Sky's population of set-top boxes ("the ASA") for which it currently pays a standard fixed fee of £100,000.
66. Sky refers in its submission (paragraph 32) to material costs associated with the application of the Continuation Notice which include costs associated with the risk that third party applications pose to the stability of the Sky set top box. As costs are recovered from third parties with charges set by Sky, we do not see how this can be the case. The BBC is familiar with the rigorous testing required to ensure applications work effectively and testing processes are in place to ensure that all versions of the iPlayer and the BBC's family of applications meet the required standards. Testing is carried out through the DTG, SSSL and Virgin Media to ensure our applications are effective across all platforms. When compared to Freeview, Freesat and Virgin Media, application testing for the Sky processes are the most robust and also the most opaque.

67. Furthermore, as set out above, we would suggest that any costs and risks associated with third party applications could be mitigated by adopting more open standards.
68. We do not consider that legal costs should be significant if Sky behaves in a fair, reasonable and transparent manner.
69. [REDACTED].
70. We note that in the publicly available version of its submission Sky does not substantiate its point on innovation, beyond giving the example that it has not to date made use of the Ethernet connection included in recent set top boxes other than to provide its Sky Anytime+ service. It is unclear to us as to why Sky's innovation should be stifled by the provision of interactive TV services.
71. Finally, Sky does not provide any numerical evidence in its submission as to the cost of the administrative burdens (paragraph 35) that they claim arise from the regulations.