



BRITISH TELECOMMUNICATIONS PLC (“BT”) RESPONSE TO OFCOM’S CALL FOR INPUT ON SPEAKING TV GUIDES

Introduction

As a shareholder, affiliate ISP and content provider in relation to the YouView platform, a linear content provider (BT Sport 1, 2 and ESPN) and a platform provider in its own right, BT welcomes the opportunity to respond to this call for input.

As Ofcom will see, we have answered the specific questions below. However, a broad point we’d like to make separately is that Ofcom currently seem to be focussed on a single solution, which might prevent more innovative solutions.

Specifically, the provision of iPhone apps etc. relies on an underlying connectivity solution allowing the app to talk to the STB. Once that is in place, the actual User Interface provided to the user doesn't need to be as complicated as a full-blown iPhone app. Working with suppliers of Assistive Technology, it would be possible to develop what would effectively be an alternative Remote Control device which could use the same underlying connection protocol, but could look like a standard Remote Control unit and could have speech output built in to the Remote Control. This is an approach which is as yet untried and would need discussions with potential suppliers of the Assistive Technology. However, this would:

- greatly reduce the complexity of the user interface;
- get round objections such as the solutions being limited to a single disability group;
- remove the requirement for built in TTS in the core STB; and
- open up the possibility of novel Connected Home applications and other possibilities not limited to the disability arena.

Questions

Q1. Do respondents agree with Ofcom’s initial assessment that apps for mobile devices have the potential to be useful for those people with visual impairments who feel confident using touch-screen technology and can afford a suitable mobile device? If not, why not?

Mobile devices clearly have the potential to be useful for visually impaired people. This obviously requires users to own a smart phone and be able to use its functionality. The affordability of such devices is not a significant barrier for the majority of people, especially when one considers the second-hand market for smart phones. There are numerous articles citing cost reduction in this area.¹ Furthermore, additional research from Deloitte (see below

¹ See <http://www.bloomberg.com/news/2013-07-21/high-end-smartphone-boom-ending-as-price-drop-hits-apple.html>

for more information) demonstrates that, once older people overcome their initial lack of confidence in using these devices, they become enthusiastic users.

Q2. Do respondents agree with Ofcom's initial assessment that apps for mobile devices are less likely to meet the needs of the majority of visually-impaired people who are 65 or older, both because they are less likely either to own a suitable mobile phone and because touch-screen apps present a number of actual and perceived barriers to use. If not, why not?

BT partially agrees with this initial assessment. The uptake of smart phones and tablets among older age groups is accelerating. Deloitte has recently carried out research around smart phone adoption in the older population² and believe that for the over 55s "...ownership should rise to between 40 and 50% by year end..." and they draw similarities with older generations being slower to adopt PCs and internet usage, in that "...once the 55+ group overcame their initial lack of confidence, they became and remain enthusiastic users."

They go on to suggest that older users often struggle to download apps but this originates from a lack of knowledge and could be resolved by educating customers.

We agree that a major obstacle in using secondary devices is the fact that some smart phones are not compatible with relevant apps. However, much of this resistance could be overcome by the selection of particularly favourable hardware e.g. a simplified Android device designed as a dedicated Remote Control unit.

Q3. Do respondents consider that it would be reasonable for visually-impaired viewers to pay more than sighted viewers for the ability to use EPGs or substitutes for the same purposes as sighted viewers? If so, why?

[X]

The disadvantage of built-in TTS is that this solution doesn't tackle the requirements of other disability groups, can be disruptive of the user experience of other viewers in the room, is less flexible and is more expensive for the manufacturer since the functionality will need to be built into all TV/STB devices whether they are to be used by disabled people or not. There is an implicit difference in the business model involved in built-in TTS compared with the external app/hardware solution. The cost of built-in TTS will almost certainly need to be covered by the manufacturer, whereas if the manufacturer provides an open standard API interface, it would be possible to involve third party manufacturers in the development and sale of the required hardware.

Q4. Do respondents agree with Ofcom's initial assessment that the speaking EPGs integrated into TVs and set top boxes may be easier for people with visual impairments to use than touch-screen apps? If not, why not?

Technology which allows users to directly access speaking EPGs is, arguably, going to be easier to use. However, setting up a speaking guide on a set top box is also likely to mean the customer will need some assistance to do so.

² See <http://www2.deloitte.com/content/dam/Deloitte/global/Documents/Technology-Media-Telecommunications/gx-tmt-2014prediction-smartphone.pdf>

As mentioned above, an alternative option would be to replace the fully-functioned smartphone and associated complexity with cut-down hardware (probably running Android) designed to resemble and behave like a conventional Remote Control. This device would have additional functionality for playing and navigating the EPG. This solution would require an interface strategy linking the Remote Control with the STB which is able to make the text of the EPG available to the remote control device and to process the programme selection and other control functions entered by the user.

Q5. Do pay TV service providers such as Sky, Virgin, Talk Talk and BT TV see additional obstacles that would prevent them from committing to including text to speech capabilities in the next planned upgrades to the receivers they offer to subscribers? If so, what are these obstacles? Absent regulation, would these obstacles make it impossible on commercial grounds to commit to the necessary investment?

For BT to integrate TTS into our set top box, the application programming interface approach would be our recommendation. If we had to do something in the STB, then a cloud based software approach would seem to be the most efficient way of achieving this. However, this assumes that we wouldn't need new chips. Given the performance of modern SoCs, it should be achievable in software with no need for special hardware. Consequently, there would be a non-recurring expense which would possibly be manageable, if we utilise cloud plus any per STB license fee charge.

[X]

Q6. If the cost of providing speech-enabled receivers to all those who subscribe to particular pay TV services would entail a substantial delay to the roll-out of such receivers to all subscribers, would it be feasible, quicker and more cost-effective to offer suitable equipment first to viewers with visual impairments?

[X]

Q7. Do respondents consider that it would be reasonable to expect visually-impaired viewers to pay extra for equipment that allows them to use EPGs or substitutes for the same purposes as sighted viewers? If so, why?

[X]

Q8. Do licensors such as Freesat and Freeview see obstacles to using their leverage to require manufacturers to incorporate speaking EPGs in future versions of products authorised to use their brands, such as Freetime and Freeview Connect?

BT has no comment to make regarding this question.

Q9. What are the main types of cost that pay TV service providers would face in incorporating speaking EPG features into the next generation of their set top boxes?

The types of cost include:

- new chips sets;
- new HW/SW integration costs;
- new client SW development;

- new user interface design and development;
- increased testing costs; and
- increased call handling costs from having an additional feature.

Q10. What is the scope for connected platforms to avoid the need for specific TTS provision within consumer equipment by using cloud-based resources (e.g. speech files on a central server delivered to the device as required)?

We do not believe there is a clear answer to this as yet. The implied solution wouldn't be flexible enough if speech files, rather than dynamically updateable streamed text, were used. This is because, as well as the EPG, the system would need to respond to changes in the state of the device e.g. selecting a particular programme, browsing catch-up, on-demand and recorded programming. If a solution is being proposed where all the functionality of a STB is held in the cloud, then trials would be required to establish whether any delays inherent in the network would be acceptable.