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What do you want Ofcom to keep confidential?:

Keep nothing confidential

If you want part of your response kept confidential, which parts?:

Ofcom may publish a response summary:

Yes

I confirm that I have read the declaration:

Yes

Ofcom should only publish this response after the consultation has ended:

You may publish my response on receipt

Additional comments:

I wish to oppose the proposal for the BBC to introduce content management to the FreeView platform.

The BBC has a mandate to provide content to as wide an audience as possible. They currently do this by distributing broadcast content using open standards, and this content can be received by any device that implements these standards. By "encrypting" certain content, that

content will only be available to people who have devices made by a small group of manufacturers, who have licensed the decryption technology from the BBC.

Question 1: Do you agree that copy management would broaden the range of HD content available on DTT and help secure its long term viability as a platform? :

No.

I do not believe that the lack of a rights management system would significantly impact the BBC's ability to acquire content. The BBC is in a unique position to stand against the encroaching tide of digital rights management, which only ever serves to inconvenience legitimate users or prevent them exercising their various legal rights. Content producers need to sell licenses to their content to the broadcasters - they may not like doing this when there is no content management system in place, but it seems unlikely that they would withhold their produce from the market, since this would remove their source of income.

The existing system has worked fine for many years, despite repeated claims from the content producers that various technologies (such as the video recorder) would cause the downfall of the industry. I see no reason to change the status quo.

I firmly believe that digital rights management is not only harmful to consumers, but also harmful to the industry itself - not infrequently, "copy protection" technologies prevent a consumer from accessing content to which they have a legitimate right and they are left with a choice: do without the content, or acquire it illegally. We have reached a point where the illegally acquired content is now of a higher quality than the legitimate content _because_ it lacks the "copy protection". Are people really going to continue to pay for content that is purposefully made inferior to the bootleg copies?

With the advent of ubiquitous high speed internet access, the only way that content management could work is if it were 100% perfect. This is clearly never going to happen - there will always be someone managing to post a copy of the content online and once you have one copy online, rights management becomes counter productive since it only serves to drive otherwise legitimate consumers to download this illegal copy rather than put up with the many problems associated with using the official, "protected" content.

Question 2: Do you agree that the BBC's proposed multiplex licence amendment represents the most appropriate means for securing an effective content management system on HD DTT? :

No.

1. The proposal is to "encrypt" the programme guide data (NOT the media streams). Anyone wishing to copy and redistribute the media streams can still do so using standard hardware - this would seem to defeat the purpose of "content management".

2. The "encryption" proposed is huffman compression. This certainly wouldn't constitute an effective encryption mechanism and would likely be reverse engineered within a couple of days, as already happened with a similar scheme on the FreeSat platform. This would seem to

defeat the purpose of "content management".

Like most digital rights management systems, the proposed system would only inconvenience the legitimate viewers. Anyone wishing to redistribute the content (i.e. the people who should be affected) would not be using licensed hardware, and thus would be unaffected by this restriction.

Hardware vendors would appear to have a choice:

1. License the Huffman tables from the BBC and agree to certain functionality restrictions.
2. Reverse engineer the Huffman tables and offer no restriction to functionality.

There would appear to be no legal recourse against vendors taking the latter option since clean-room reverse engineering for interoperability purposes is legally allowed, and it seems that simple Huffman compression should not constitute an effective encryption algorithm in the eyes of the law. The only reason for a hardware vendor taking the former option would seem to be so that they could display a "FreeView HD" badge on their hardware - this could be handled just as well with a licensing restriction on the "FreeView HD" branding rather than the introduction of content management technologies on the broadcast platform itself.

I should take this opportunity to point out the current, rather silly, system in place regarding the FreeSat HD platform: the unencrypted BBC HD signal is broadcast 72,000km through space, after which the FreeSat licensing terms mandate that it must be encrypted (using HDCP) as it passes along the 1 metre piece of cable between the set top box and the TV. Clearly this is insane - this inconveniences legitimate customers (some of whom may not have a modern HDCP compliant TV) whilst doing nothing to prevent copyright infringement since such people would be recording the unencrypted and conveniently pre-compressed broadcast data stream, rather than the raw decompressed HD signal sent to the TV. The proposal for the FreeView platform seems to be as ludicrous as the existing FreeSat system.

Question 3: Do you agree with the proposed change to Condition 6 in the Multiplex B Licence? :

No.

This would appear to serve no purpose but to inconvenience legitimate consumers of the data and harm the free market that currently exists for hardware.

Question 4: Do you agree that Multiplexes C and D should be granted a similar amendment to their Licences as Multiplex B?. :

No.

For the reasons given in my response to question 3.

Question 5: Do you agree that the BBC's proposed approach for implementing content management would safeguard citizens and consumers legitimate use of HD content, and if not, what additional guarantees would be appropriate? :

No. The law allows for consumers to make recordings for their own use over a limited time.

The proposed safeguards add further restrictions, such as the requirement for recordings to stay on the recording DVR. This restricts legitimate uses, such as the ability to watch the recording elsewhere in the household (whether this be on another TV or a computer), or editing the content for personal or educational purposes, as allowed by copyright law. Whilst some effort has been made to allow some of these activities, such as the use of DTCP for networked distribution, and AACS for Blu-ray, the full extent of activities allowed by the existing UK laws are by no means maintained by the proposals.

The safeguards also mandate the use of HDCP. It is known that a number of older TV sets are not capable of HDCP - any device requiring a component video input would be incompatible, as well as many early digital HDTVs. Furthermore, encrypting high bandwidth raw uncompressed HD video on a short cable between the decoder and TV is pointless in a situation where the original broadcast content is conveniently pre-compressed and unencrypted. I should also take the opportunity to point out that fatal flaws in HDCP were discovered before the standard was even ratified and that there are many HDCP circumvention devices available.

Question 6: Do you agree that the BBC's proposed choice of content management technologies will have only a negligible impact on the cost of HD DTT receivers and their interoperability with other HD consumer equipment?

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No.

This is extremely detrimental to interoperability - please see my response to question 5.

Question 7: Do stakeholders agree that the BBC's proposed Huffman Code licensing arrangements would have a negligible effect on the market for HD DTT receivers? :

It probably would have a negligible impact, since the Huffman encoding will be trivial to reverse engineer and there would therefore be little reason to license the Huffman tables from the BBC.

Question 8: Do the BBC's proposed content management states and their permitted use for different categories of HD content meet the requirements of other HD broadcasters on DTT? . :

No comment.

Question 9: Are there any issues that you consider Ofcom should take into account in assessing the BBC's proposal, that have not been addressed by this consultation?:

This proposal is very similar to the existing FreeSat system. Ofcom should take a look at that system from a technical perspective in order to understand why it does not meet any of the

requirements.

Furthermore, the BBC's HD content has been available only on FreeSat for a number of years. Since the FreeSat platform already implements many of these proposed "solutions", it should be reasonably trivial to look at how widely available the BBC's HD content is through illegal downloads. If the solutions are working, there should be no infringing BBC HD content available.