

21 March 2005

INTELLECT'S RESPONSE TO OFCOM CONSULTATION:

Planning Options for Digital Switchover

1. Intellect is the Trade Association for the Information Technology, Telecommunications and Electronics industries in the UK. We have 1,000 member companies who employ more than 1.1 million people and account for around 10% of UK GDP. One of the key constituencies we represent within membership are Consumer Electronics manufacturers, who are committed to ensuring a successful digital switchover in the UK.
2. Consumer Electronics (CE) companies work to formulate policy through the Intellect Consumer Electronics Council and the Digital Television Manufacturers Forum (DTVMF), an industry wide body formed to consolidate the views of CE manufacturers regarding Digital Terrestrial Television in the UK. A list of companies active within these groups is attached.

Question 1. Should all three public service multiplexes be required to achieve the same coverage at switchover throughout the United Kingdom? If so, should the coverage obligations being discussed for the commercial public service broadcasters be adopted by the BBC in its digital switchover planning?

3. The Public Service multiplexes should be required to provide the same coverage throughout the area currently covered by the analogue terrestrial service.
4. Where the broadcast inputs (number of sites and radiated power) are the same, coverage will differ slightly. However, Intellect believes it is critical that the core coverage of all PSB services should at least match the 98.5% core coverage currently served by the analogue service and that this should be an obligation for all PSBs, including the BBC.

Question 2. Ofcom seeks views on what level of coverage and capacity the commercial multiplexes could or should adopt at switchover and the effects this decision may have on the switchover process.

5. Intellect believes that the commercial multiplex operators should be encouraged to build out the service as far as possible because additional services will attract viewers to digital TV and help switchover. While this is clearly a commercial decision, wherever the service is introduced (to 80 or 120 transmitters) the operators should be required to provide the same inputs as the PSB operators in terms of coverage quality and robustness.

Question 3. Is it appropriate to amend the DRLs to clarify licensees' obligations as regards DTT coverage?

Question 4. If so, is it appropriate for Ofcom to seek to increase clarity for DRL licensees about the digital coverage required by describing obligations in terms of key input parameters (ie

sites, transmission mode and power), or the achievement of an explicit coverage output, or other criteria? How should these criteria be worded in the DRLs?

6. The DRLs should be clarified as to the licensee's obligations for coverage.
7. As an objective measurement of coverage does not presently exist that could provide an accurate measurement of robustness and immunity to noise (the digital equivalent to the grades of picture quality of analogue reception results), Intellect feels that there is no alternative but to specify the broadcast inputs in order to clearly set out the obligations of the licensees.

Question 6. Ofcom seeks views from respondents more generally about whether the capacity reductions implied by this option (Option 1) outweigh the other benefits. Again, Ofcom would welcome responses supported by detailed background information, including costs, to assist the regulator in assessing the benefits and disadvantages of this option.

8. A reduction in the capacity of PSB Multiplexes should not be required by a move of the D3&4 Multiplex to 16 QAM, provided coverage and quality can be maintained. Furthermore, should this option be taken, the resulting reduction in bit rate capacity would put pressure on the remaining capacity with a likely result of poorer picture quality through increased data compression.

Question 8. Ofcom seeks respondents' views in general on Option 3.

9. Provided a robust signal can be maintained by appropriate signal levels and mode, option 3 is thought viable because it provides for full coverage and improved capacity for the DTT service, encouraging growth into new areas.
10. It is important to note that significant benefits from any improvement in capacity will only be gained through the introduction of new, high quality services rather than "more of the same". For example, High Definition (HD) services or an increase in "bit rate" allocated to existing services providing better pictures through reduced compression. These options would provide the much needed improvements to the picture quality performance that will be required when large screen flat panel products are common-place in viewers' homes.
11. In particular, it is important that capacity is available for HD content on the DTT platform. As more content becomes available in HD this year and next, through broadcast from Sky, the launch of BluRay and HD-DVD, and more HD gaming, consumer demand will grow. Manufacturers are already producing HD-Ready products in anticipation of this increased demand and it is therefore vital that Public Service Broadcasters have the channel capacity available to broadcast in HD.
12. We note that the relevant spectrum capacity referred to is marked as "Digital Switchover Dividend". Other Intellect members outside the Consumer Electronics sector would like to see part of the spectrum made available for other uses. The views expressed in paragraphs 10 and 11 are the strongly held views of our Consumer Electronics members only.

Question 9. Ofcom would also welcome comments (especially supported by background information) in particular on: (a) the proposal under this option to increase further the power levels of some transmitters (see paras. 5.7 and 6.16) in order to enable the DTT coverage to match that of analogue; (b) the potential risk to achieving DSO by 31 December 2012 that may be associated with the adoption of Option 3; and (c) whether adoption of this option may give any inappropriate advantage to the DTT platform?

13. Intellect is not able to provide comment relating to the practical implications of transmitting at – 4dBs but would urge the broadcasters to provide a quality network with good coverage and capacity rather than a fast switchover date.
14. Should Option 3 be selected along with more transmitters and using the 8K carrier mode improved capacity and coverage will result. The capacity will be returned to the level used by ITV Digital and the coverage of the PSB muxes will match that of the existing analogue service. These improvements make the platform a viable alternative to analogue and do not provide any 'unfair' advantages to other platforms currently carried by cable or satellite.

Question 10. Ofcom seeks opinions on Option 4 generally, and in particular views on the impact that the loss of full coverage of the terrestrial services outlined in Option 4 would have on the households affected and what factors should be considered in their adoption of alternative platforms. It also seeks views from respondents about whether the coverage disadvantages discussed could be outweighed by the benefits that may arise due to the retention of the current level of public service multiplex capacity and lower costs for the broadcasters compared with the higher cost options.

Question 11. Ofcom seeks views on Option 5 in general, and in particular on the impact that the loss of full coverage of the terrestrial services outlined in Option 5 would have on the households affected and what factors should be considered in their adoption of alternative platforms. It also seeks views from respondents about whether the coverage disadvantages could be outweighed by the benefits that may arise due to the higher PSB capacity (compared with Option 1) and reduction in costs for the broadcasters (compared with Options 2, 3 and 4).

15. Both Options 5 and 6 if taken, predict a smaller coverage than the current analogue service. Although they offer a solution that is easier and less costly for the broadcasters to implement, we do not think they are acceptable considering their predicted reductions in core coverage. However, with the addition of extra transmitters as in Option 2 the reduced coverage issue could be acceptably addressed.

Question 12. Taking into account the coverage objectives, capacity considerations, relative power and infrastructure costs, the requirement to begin switchover as soon as is practicable and to complete the DSO process by 2012, the need for appropriate technological neutrality in achieving DSO, and all other relevant facts and circumstances, which DTT planning option should be adopted by the UK and Ofcom for switchover?

16. Intellect considers Option 3 is the best planning option for the UK. Fundamentally we believe that above all else it is the responsibility of the Government and Ofcom to provide the best and most robust network possible for the UK. While Option 3 will potentially impact on cost and the end date of switchover it should not affect the start date and will provide the most robust and future-proof option. The development of the network must allow for increases in capacity wherever possible and for the introduction of new services such as High Definition.

Question 13. It is proposed that the broadcasters should adopt the 8k variant at switchover to enable the adoption of single frequency networks at switchover. Should this be done on a nationwide or regionalised basis and over what timetable?

17. Intellect believes a move to the use of 8K transmissions would help develop and improve the network. The most appropriate timing of a move to this mode would be as each region switches to DTT as per the switchover regional rollout plan. However, Intellect is concerned that the

switchover of the 80 main transmitters will create a significant number of legacy products with 2K only receivers that would require conversion or replacement, and although we otherwise support 8K use nationwide this will need to be taken into account

18. Manufacturers design and build their products with the intention that they will continue to function to their original specification for their expected lifespan. Early DTT products were designed to operate using 2K due to the decision to begin DTT transmissions using such a system and the then availability of silicon. Consumers, in many cases 'early adopters' that embraced and supported the development of the new DTT platform, purchased these products in good faith with the expectation that they would continue to operate normally for their entire lifespan. Although the products that would be affected by a change to 8K may be of significant age by the time of implementation, we cannot expect all consumers to accept that otherwise fully functional products have become, in their view, prematurely obsolete. Under these circumstances, it may be the manufacturer that will be held responsible, though the failure of the product was incurred through no fault of their own. Indeed, it could be argued that those manufacturers who invested early in DTT product development are the ones who will bear the biggest burden of this problem.
19. The most serious legacy problems will occur with Integrated Digital TV (idTV) products (some Set Top Boxes are also 2K, although most were not paid for by consumers). Intellect estimates that there are in the region of 75,000 2K-only idTVs currently installed but further estimates that only around 50,000 would still be in use at the time of regional switchover.
20. It is important to develop and improve the DTT network but there will clearly be a large impact on consumers and considerable implications for manufacturers, who will be keen to support their customers through a problem that would not have existed were it not for digital switchover. We therefore urge Ofcom to carefully consider what compensation would be made available by Government to resolve such market legacy problems

Question 14. How should the current coverage deficiencies be managed after digital switchover? Should the current system of self help licensing be continued or should these communities be encouraged to adopt alternative platforms such as digital satellite? Ofcom is keen to hear respondents' views about the relative costs and benefits for each of these approaches.

21. The Free To Air (FTA) digital satellite service currently offered in the UK is thought to be unpredictable in terms of on-going costs and so self-help licenses for small community schemes should be continued.
22. The current FTA digital satellite service is a good offer but has the effect of removing the possibility of a horizontal FTA D-Sat market developing. There does exist the possibility to purchase and operate equipment that will provide a free to view service on the UK's D-Sat platform, but a single provider strictly controls its availability, promotion and equipment prices.

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Appendix 1

Intellect Digital Television Manufacturers Forum members:

Alba
Cabot Communications
Daewoo
Eldon Technology
Finlux
Fusion
Hauppauge
Hitachi Europe
Humax Electronics
JVC
LG Electronics
Linn Products
Loewe
Matsushita Electric
Netgem
Nokia
Novapal
Ovus
Pace Microtechnology
Panasonic
Philips
Sagem Communications
Samsung
Sanyo
Sharp Electronics
Sony
Thomson Multimedia
Toshiba