TV WHITE SPACES : A CONSULTATION ON WHITE SPACE DEVICE REQUIREMENTS

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Cable&Wireless Worldwide

CWW welcomes Ofcom's consultation on this issue. We are cautiously supportive of the initiative to yield greater efficiency of utilisation of spectrum, by exploiting the bands left unutilised by digital terrestrial television at a given location. Our support, however, is moderated by concern that such usage should not be allowed to interfere with licensed applications both in these spectrum bands and others of similar frequency.

CWW believes the framework proposed by Ofcom is a workable one, albeit we caveat this by the observation that in the desire to future-proof the architecture by incorporating what are as yet theoretical capabilities, gaps appear in the framework that require plugging, notably around inter-WSDB communication.

CWW does not wish to comment directly on the radio parameters proposed in the Consultation in any detail, instead leaving this to those stakeholders with more direct experience such as WSD vendors and the digital terrestrial broadcasters. However, we caution Ofcom that it will be essential to make decisions based on solid theoretical and empirical data, being careful not to be swayed by what will inevitably be vested interests both in favour of using extremely conservative values and conversely in applying an overly liberal approach.

Notwithstanding our intent to leave the detail of the radio parameters for negotiation within the stakeholders, CWW does note that rather than specifying maximum transmit parameters Ofcom instead seems to rely upon derivation of these from parameters designed to minimise interference with existing services. Based upon those contributed by Ofcom to the ITU-R in the nearby 700MHz band we believe this could result in an unduly conservative approach, and urge Ofcom to set values based upon real-world rather than absolute worst-case assumptions, applying these consistently across WSD and 700MHz mobile broadband spectrum bands.

When Ofcom has finalised the acceptable parameters, regardless of usage of this spectrum being notionally unlicensed, it is absolutely essential that the occupancy rules be clearly documented, policed and enforced. Whilst the usage of TV white space has potential benefits and should thus be encouraged, there must be no scope for interference with licensed bands, both in the digital terrestrial television bands and also with other nearby bands such as those about to be awarded for 4G services.

Although not an issue specifically consulted on at this time, CWW notes that it is essential for the framework set out for TV whitespace usage that there be a standardised interface between the Ofcom database and the (presumably competitive) WSDBs, and highly preferable that there be standardisation between WSDBs and WSDs (albeit we can foresee a "closed garden" scenario where this could be proprietary). Whereas the latter aspect must be one for international standardisation if excessive national-specific costs are to be avoided, the interface from Ofcom to the WSDBs will inherently be a UK-specific one, albeit informed by implementations elsewhere. This being the case, CWW queries how Ofcom foresees this interface being agreed, for example whether it would simply be published by Ofcom, or whether it is seen as something to be owned by industry, for example published via NICC.

We note that within the framework, provision is made for WSDs to report their spectrum usage back to WSDBs, and potentially that future WSD spectrum allocations be informed not only by knowledge of licensed digital terrestrial band usage in the area, but also by WSD usage assigned under the framework. It is CWW's understanding that at present this is a somewhat theoretical construct, which has been included for future-proofing purposes. Whilst acknowledging this background, it seems to us that this framework could not work unless there was some form of mutual communication between WSDBs, either directly or via the Ofcom database. Absent this, a given WSDB could only ever have partial information on WSD usage in an area, so the "intelligent"/"informed" approach is inherently doomed. CWW queries whether this aspect should be built into the framework, albeit not implemented at the moment.

CWW looks forward to hearing Ofcom's conclusions on the radio parameters for WSDs, and trusts that they will walk the tightrope of safeguarding existing applications while not stifling innovation.