TPS
Telecom Policy Services Ltd.

The Response of Telecom Policy Services Ltd.

to the Consultation

Digital Dividend: Cognitive Access

Telecom Policy Services Ltd. is grateful for the opportunity to contribute to the debate on opening the so-called "whitespace" for the introduction of further services based on access to the spectrum being permitted for devices utilising suitable cognitive principles.

Never before has the deployment of a licence-exempt service been contemplated within a band also carrying such an important service as broadcast television. The consequences to the UK were this to go wrong could be severe. Also, the damage to the credibility of the ICT sector could also be significant and long-lasting.

It is recognised that the consultation is primarily intended to address the derivation of certain key technical parameters that will provide an acceptable measure of protection from harmful interference for the television and PMSE services operating in the bands. However, TPS takes the opportunity of this consultation to draw attention to the product conformity issues that could become very significant factors in the success of this project.

Question 1. The executive summary sets out our proposals for licence-exempting cognitive devices using interleaved spectrum. Do you agree with these proposals?

The development of a detection mechanism to meet the requirements for the avoidance of harmful interference to DTT would appear to be extremely challenging. Furthermore, in the event that a move to better DTT technology becomes desirable, the presence of a significant population of other devices in the band which use detection (wholly or as part of a package of other measures) may work to impede or actually prevent the deployment of these future DTT technologies.

Therefore, great caution should be exercised when permitting detection as a means of interference avoidance.

The use of a geo-location database is therefore favoured.

Mandatory Requirements

The technical parameters, though very important, represent just one aspect of the package of measures that will be necessary to prevent harmful interference occurring.

The consultation (very correctly) starts from the assumption that the products placed on the UK market will actually conform to the UK regulation that will emerge. Experience shows that the applied regulation must mandate all the necessary behaviours because products will (in general) meet those requirements but not more. Therefore the regulation needs to be comprehensive.

Specific points:

1. Products developed for other markets, such as the USA, will be designed for DTV transmissions and as such can be expected to interfere with the DTT transmissions. Thus a significant effort may be required to ensure such products are not deployed here.
2. Point (1) implies the need for a significant increase in the market surveillance activities and at customs at the time of import to prevent this. The testing of product to ensure they are compliant with the right regulation is likely to become a separate set of requirements.
3. It is noted that some measure of these market surveillance increases is already foreseen in Regulation 765[1] and Decision 768[2]. These measures are expected to have an increasing effect starting this year.
4. In relation to these measures, it has been suggested in other Member States that the obligations to ensure the product conformity should be extended to encompass all stages of the distribution chain. Whilst this would certainly increase the likelihood of non-conformant products being identified, prior to

[1] REGULATION (EC) No 765/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93

[2] DECISION No 768/2008/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 July 2008 on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC

deployment, the proposal represents a huge increase in workload for the various stakeholders in the distribution chain.

5. It may be considered wise to include specific anti-interference operational protocol measures such as an over-the-air turn-off capability be incorporated into every device. The Radio Investigation Service would then be given access to the necessary capability to use these codes in the event that interference is detected in the field. This also implies the device transmissions be indentified (which they are likely to be anyhow) and that the RIS can isolate the identity of the interfering units.
6. As an alternative, perhaps an activation system could be deployed by some suitable authority whereby the device could be sent an activation key on field registration. Because this would be only at the commencement of service (a one-off transaction), there would be no need for additional spectrum for this.

Questions on this response should be directed to Tim Cull.

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