Title:

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Representing:

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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:

Question 1: Should we suggest only high level parameters, leaving further work to industry, or should we seek to set out full details of parameters to be exchanged?:

We believe that industry, the SDOs and compatibility alliances have significant resources and a proven record of success providing the fine details necessary for enterprise and consumer networking.

Question 2: Should both closed and open approaches be allowed? Should there be any additional requirements on the providers of closed databases?:

Open and non-proprietary database schemes provide more opportunities for necessary system redundancy, and opening the service up to competition which can lead to lower operational cost and greater innovation. Openly defined access mechanisms will reduce the cost of switching from one provider to another when circumstances warrant change.

Question 3: What information should be provided to the database? Are our assumptions about fields and default values appropriate?:

We are not opposed to the fields and defaults proposed, but we also see opportunities for continuous tuning of the protection as device technology evolves, for example TV band MIMO antennas using metamaterials may allow beamforming in UHF bands by personal, portable devices: http://www.smartertechnology.com/c/a/Technology-For-Change/NIST-Shrinks-Antennas-50fold-with-Metamaterials/

Question 4: Should the translation from transmitter location to frequency availability be performed in the database or in the device?:

It is probably best for consistency, and allocation fairness that the database(s) do the calculations.

Question 5: Have we outlined an appropriate information set for the database to provide to the device? Can industry be expected to develop the detailed protocols?:

We would hope that the regulatory domain database would maintain the basic location, etc information, allowing for value add customer, vendor or network operator databases to find innovative ways to provide this to their customers/client devices. It is crucial that the database provide a maximum transmit power per frequency at each location so that as technology evolves the regulations need not change.

Question 6: Is a two-hourly update frequency an appropriate balance between the needs of licence holders and of cognitive device users?:

Two-hour updates may be sufficient in most cases, but we would prefer a system that allows for more timely push technology updates to provide for emergency services and/or unanticipated needs of PMSE. Devices receiving push messages would be required to verify their connectivity at two-hour intervals to maintain the integrity of the push system. The general principle is to reduce database communications to the

minimum, and require devices to maintain their ability to receive communications from the database.

Question 7: Is there benefit to devices receiving a time validity along with any database request and to act accordingly?:

Yes, it helps reduce the requirements in rural areas where protected frequencies change slowly, and the cost of communication with the database is highest.

Question 8: What role could push technology play?:

Similar SMS alerts to neighborhoods are being developed using cellular technology. See comments in A6

Question 9: Do you have any comments on the suggested approach to implementing the database for DTT?:

No

Question 10: Do you have any comments on the suggested approach to implementing the database for PMSE?:

No

Question 11: Do you believe it is practical to implement such a database?:

Yes, and we are working with the FCC on a similar effort, which we expect will conceptually be utilized on a global basis. Please look at FCC 04-186 Comments of Cavell, Mertz & Associates for a description of many shortcomings in the existing FCC TV bands data bases http://fjallfoss.fcc.gov/ecfs/document/view?id=7020385432

Question 12: Is it appropriate for third parties to host the database? If so should there be any constraints? If not, who should host the database instead?:

In the US we expect the TVWS database to be hosted by one or more third parties, with a distributed structure, regulated by the FCC. We believe this has many advantages including the advantages of competition noted in A2 and A5.

Question 13: How can any costs best be met?:

In the case of the FCC, a number of proposals have been submitted that include a few different approaches to financing the database operation. We prefer methods that do not charge per access to the database. Device registration into the protection of the geolocation database does have economic value to the registrant, and is most likely the simplest and most user acceptable method, be it a one time or annual fee.

Question 14: What are the difficulties and expected costs to licence holders in providing the necessary information to the database? Could this information be provided in any other way?:

All license holders (and their staff) use cellphones, and should be able to use cellphones provide the necessary information to the database.