

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	DA 09-2479
	)	
Unlicensed Operation in the TV Broadcast Bands	)	
	)	ET Docket No. 04-186
	)	
Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band	)	ET Docket No. 02-380
	)	

To: Marlene H. Dortch  
Office of the Secretary, Federal Communications Commission

**REPLY COMMENTS OF COMSEARCH**

Comsearch submits the following reply comments in the above-mentioned Public Notice proceeding from the Federal Communications Commission's Office of Engineering and Technology issued November 25, 2009.<sup>1</sup>

On January 4, 2010, Comsearch submitted our fully-compliant proposal to develop and manage an independent TV Band Device Database.<sup>2</sup> We are one of nine entities seeking to become a TV Band Device Database Administrator.

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<sup>1</sup> See *Office of Engineering and Technology Invites Proposals from Entities Seeking to be Designated TV Band Device Database Managers*, ET Docket No. 04-186 (DA 09-2479) (Public Notice) 23 FCC Rcd 16807 (2008), and *Second Report and Order and Memorandum Opinion and Order, (Order)* ET Docket No. 04-186, ET Docket No. 02-380, 23 FCC Rcd 16807 (2008)

<sup>2</sup> See, *Comsearch Proposal To Be Designated As A TV Band Device Database Manager*, January 4, 2010 (Comsearch Filing)

Having been in the spectrum management/frequency coordination/database development and management business for over 30 years, Comsearch notes that we have more relevant experience than any other prospective database administrator. We described in our filing several existing internet-based services we currently provide that, coupled with our existing telecommunication databases, underscore our ability to develop, maintain, provide, and support an independent TV Band Device Database (White Space Database).<sup>3</sup> Our filing detailed the requisite information the Commission was seeking to select Comsearch as a White Space Database Administrator.

We read with interest all comments filed in the proceeding. Thus, we believe it is necessary to clarify our position with respect to some misconceptions raised in commenter's filings.

Foremost among these misconceptions is the approach to a Data and Reference Calculation Code Clearinghouse (Clearinghouse)<sup>4</sup>. Comsearch suggested the establishment of a Clearinghouse as an *alternative* approach that the Commission could consider (along with any others) given the complexity and uncertainties surrounding White Space device administration. Our primary approach proposed a fully functional and compliant end-to-end solution, and we have already developed significant portions of our proposed solution as evidenced by the TV White Space Spectrum Availability Maps included in our filing.<sup>5</sup>

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<sup>3</sup> *Id* at pp 4 – 17

<sup>4</sup> *Id* at p 42

<sup>5</sup> *Id* at pp 22 – 23

Comsearch proposed a Clearinghouse as an alternative approach to address issues with data and calculational consistency.<sup>6</sup> Based upon our long-standing experience working with the Commission's databases and sharing data with other entities in real time, we stand by our concerns as detailed in our filing.<sup>7</sup> We strongly believe that the intricacies surrounding the requirements to accurately register devices, maintain and share data, and ensure consistent calculation results among nine Database Administrators cannot be overstated. This will complicate the development, testing, and operation of the White Space Database system.

While our proposal described a single Clearinghouse, we also recognized the need to support flexibility in a functional approach. Thus, we proposed interfaces to permit synchronization of data with other database providers should they not wish to work with a Clearinghouse.

It is important to note that we did not propose the Clearinghouse option as a commercial enterprise, but rather provided the following approaches for the Commission to consider:<sup>8</sup>

1. The Commission could outsource the responsibility through a competitively-bid contract. In this connection, a Clearinghouse would operate under contract to the Commission, subject to Federal Government regulations and Commission oversight. Issues of efficient pricing, innovation, sustainability, reliability, etc. can be addressed in the contract with the contractor.
2. A Clearinghouse could be taken on by an existing industry association.

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<sup>6</sup> We noted in our filing that these issues were also raised by Motorola in an *ex parte* filing in this proceeding on October 14, 2009. We also note here that the Commission addressed this concern in the *Order* at 204, "...we are mindful that sufficient safeguards must be put in place to ensure that TVBD users would receive the same set of available channels regardless of which database it queries..."

<sup>7</sup> *Id* at pp 43 – 46

<sup>8</sup> *Id* at p 51

Here, a non-profit industry association assumes the responsibility of running a Clearinghouse using either their own resources or outsourcing through a competitively-bid contract. Pricing, innovation, sustainability, reliability, etc. can be addressed among the members of the industry association who would have a stake in the selection of a contractor as well as the administration of Clearinghouse functions.

3. A new organization could be formed of white space stakeholders for the purpose of developing, maintaining and running a Clearinghouse. This would likely function the same as above, except that the non-profit industry association would have to form and should align more closely with those interested in white space.

Under each of these approaches, a Clearinghouse would operate under the auspices and direction of either the Commission or a non-profit industry organization comprised of interested stakeholders. Responsibility for all management and oversight decisions would be borne by the designated entity.

Another misconception is that the Commission requires Database Administrators to verify FCC equipment authorization for white space devices.<sup>9</sup> The Commission has detailed in section 15.713(h) the information required to be maintained in the database. Nowhere in this rule section (nor anywhere else in Subpart H) does the Commission require Database Administrators to acquire or maintain equipment authorization data. In addition, section 15.715(j) states, “The database must have functionality such that upon *request from the Commission* it can indicate that no channels are available when queried by a specific TVBD or model of TVBDs.” (emphasis

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<sup>9</sup> See *Comments of the Association for Maximum Service Television, Inc. and the National Association of Broadcasters*, February 12, 2010 at 13

added).<sup>10</sup> We interpret this to mean that the Commission will actively contact a Database Administrator to ask that devices be disabled through the use of FCCID, and we have accommodated that requirement in our design<sup>11</sup>.

In our proposal, we detailed numerous concerns and uncertainties surrounding White Space.<sup>12</sup> We urge the Commission to address as many of these concerns as possible within their purview before selecting White Space Database Administrators.<sup>13</sup> However, this is also an undeveloped market that is awaiting a database as an enabler. Consequently, it is practically impossible to predict at this juncture the viable approaches to a database functional architecture. Thus, we strongly urge the Commission to consider all viable approaches to a White Space Database.

The exciting opportunities presented by permitting unlicensed use of TV white spaces are far-reaching. To be sure, the database mandated by the Commission represents the first of its kind, particularly serving unlicensed devices. There is no room for failure, missteps, or rote-learning. Throughout our long history, we have worked to avoid, address, or mitigate harmful interference through development, operation, and innovation of our vast telecommunications

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<sup>10</sup> The mechanism for how the Commission intends to use FCCID is described in the Order at 212: “A database administrator will not be responsible for resolving claims of interference from TVBDs. If there is a claim of interference, a database administrator, upon request from the Commission, must provide TVBD identifying information. If a device is found to be causing interference, the Commission may then require that the party responsible for the unlicensed device take corrective actions or cease operating the device until the interference is resolved. In addition, if a representative of the Commission attempts and is unable to contact the person responsible for a device that is determined to be causing interference, the Commission may require the TV bands database to return a message of “no channels available” to the device at its next scheduled re-check. This will effectively shut down the device until contact is made with the responsible party so that the interference can be resolved. The database administrator will rescind a “no channels available” status for that device only upon authorization by the Commission.

<sup>11</sup> Comsearch filing pp 27 - 30

<sup>12</sup> *Id* at p18

<sup>13</sup> These include for example several Petitions For Reconsideration, outstanding proceedings related to wireless microphones, and a pending NOI for high-powered operation in rural areas.

databases and online analysis tools. We understand acutely the role a White Space Database will play in avoiding harmful interference to incumbents while enabling a brand new ecosystem of wireless devices.

As detailed throughout our proposal and our reply comments, we believe we are well-suited to be an administrator of that database given our background, experience, expertise, and approach. We look forward to working with all stakeholders to leverage our experience and expertise to help bring about the success of white space.

Respectfully Submitted,

/s/ H. Mark Gibson

H. Mark Gibson  
Sr. Director, Regulatory Policy  
**COMSEARCH**  
19700 Janelia Farm Boulevard  
Ashburn, Virginia 20147

Date: February 24, 2010

cc: Hugh L. Van Tuyl  
Office of Engineering and Technology  
Federal Communications Commission