



PUBLIC NOTICE

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DA 09-2479
Released: 11/25/2009

Office of Engineering and Technology Invites Proposals from Entities Seeking to be Designated TV Band Device Database Managers

ET Docket No. 04-186

Proposals Date: January 4, 2010
Comments on Proposals Date: February 3, 2010
Replies to Comments Date: February 18, 2010

On November 4, 2008, the Commission adopted a *Second Report and Order and Memorandum Opinion and Order (Second Report and Order)* in ET Docket 04-186 that established rules to allow new, sophisticated, unlicensed wireless devices to operate in broadcast television spectrum at locations where that spectrum is unused by licensed services.¹ This unused TV spectrum is commonly referred to as television “white spaces.” The rules will allow for the use of unlicensed TV band devices in the unused spectrum to provide broadband data and other services for consumers and businesses.

To prevent interference to authorized users of the TV bands, TV band devices must include a geo-location capability and the capability to access a database that identifies incumbent users entitled to interference protection, including, for example, full power and low power TV stations, broadcast auxiliary point-to-point facilities, PLMRS/CMRS operations on channels 14-20, and the Offshore Radiotelephone Service.² The database will tell a TV band device which TV channels are vacant and can be used at its location.³ The database also will be used to register the locations of fixed TV band devices and protected locations and channels of incumbent services that are not recorded in Commission databases.⁴ The Commission decided in the *Second Report and Order* to designate one or more database administrators from the private sector to create and operate TV band database(s), which will be a privately owned and operated service. Database administrators may charge fees to register fixed TV band devices and temporary broadcast auxiliary fixed links and to provide lists of available channels to TV band devices.⁵

¹ See *Second Report and Order and Memorandum Opinion and Order* in ET Docket No. 04-186, 23 FCC Rcd 16807 (2008), *reconsideration pending*.

² See 47 C.F.R. § 15.711.

³ See 47 C.F.R. § 15.713(a)-(b).

⁴ *Id.* (e.g., the locations of cable headends and low power TV receive sites that are outside the protected contours of the TV stations whose signals they receive; the locations where authorized wireless microphones and other low power auxiliary devices are used on a regular or scheduled basis).

⁵ See 47 C.F.R. §§ 15.713-15.715 for the rules pertaining to the operation of the TV band database.

Several parties have made recommendations to the Commission concerning the TV band device database through *ex parte* presentations and in petitions for reconsideration of the *Second Report and Order*.⁶ The *ad hoc* White Spaces Database Group has made suggestions about the basic functional architecture for TV band database(s),⁷ and individual members of that group have made suggestions about other issues including, for example, measures to ensure data security and criteria for selecting database managers. Although there appears to be general agreement on the basic functional architecture for TV band database(s) (*i.e.*, a data repository, a data registration process, and a query process), there are a variety of views on whether we should designate one data repository administrator and allow multiple registration and query service providers, have each administrator perform all functions, or some other combination.

The Office of Engineering and Technology (OET) invites entities that are interested in being designated TV band database manager(s) to file proposals with the Commission by January 4, 2010. Proposals must address how the basic components of a TV band database(s) as required by the Commission's rules will be satisfied—*i.e.*, a data repository, a data registration process, and a query process—and whether the proponent seeks to provide all or only some of these functions and affirm that the database service will comply with all of the applicable rules. Proposals must include the following information.

1. The entity must demonstrate that it possesses sufficient technical expertise to administer a TV band database. It must demonstrate that it has a viable business plan to operate a database for the five-year term set forth in Section 15.715(g) of the rules. To the extent that the proponent will rely on fees from registrations or queries, the proposal should describe the fee collection process.
2. The entity must describe in detail the scope of the database functions that it intends to perform, such as managing a data repository, performing calculations to determine available channels, and/or registering fixed unlicensed devices and licensed services not listed in the Commission's databases, or how it will have functions performed in a secure and reliable manner by another entity. The entity must also describe how data will be synchronized between multiple databases if multiple databases are authorized and how quickly this synchronization of data will be accomplished.
3. The entity must provide diagrams showing the architecture of the database system and a detailed description of how each function operates and how each function interacts with the other functions.
4. If the entity will not be performing all database functions, it must provide information on the entities operating other functions and the business relationship between itself and these other entities. In particular, it must address how the Commission can ensure that all of the requirements for TV band database administrators in Section 15.715 are satisfied when database

⁶ See, e.g., White Spaces Database Group *ex parte* submission dated April 10, 2009 (filed by Google), Google *ex parte* submission dated April 22, 2009, Neustar *ex parte* submission dated April 29, 2009, Key Bridge *ex parte* submission dated August 17, 2009, and Dell/Microsoft *ex parte* submission dated August 27, 2009. See also, Key Bridge Global LLC petition for reconsideration dated March 19, 2009 and Public Interest Spectrum Coalition petition for reconsideration dated March 19, 2009.

⁷ See White Spaces Database Group *ex parte* submission dated April 10, 2009. The White Spaces Database Group consists of the Consumer Electronics Association, Comsearch, Dell, Fox, Google Inc., Microsoft Corporation, Motorola, Association for Maximum Service Television, Inc., NetLogix, Neustar, PCIA, Phillips, Public Interest Spectrum Coalition, Spectrum Bridge, SWIM and Waterford Consultants, LLC.

functions are divided among multiple entities, including a description of how data will be transferred among these various related entities and other databases if multiple databases are authorized and the expected schedule of such data transfers (*i.e.*, real-time, once an hour, etc.).

5. The entity must describe the methods (*e.g.*, interfaces, protocols) that will be used by TV band devices to communicate with the database and the procedures, if any, that it plans to use to verify that a device can properly communicate with the database. It must include a description of the security methods that will be used to ensure that unauthorized parties can not access or alter the database or otherwise corrupt the operation of the database system in performing its intended functions. In addition, the entity should describe whether and how security methods will be used to verify that Mode I personal/portable devices that rely on another device for their geographic location information have received equipment authorization.

Proposals must be submitted to the Commission by January 4, 2010, in accordance with the filing procedures specified below. We are also providing an opportunity for comments and replies regarding the TV database manager proposals: comments are due February 3, 2010 and replies are due February 18, 2010.

The Commission will review all of the proposals, comments, and reply comments before selecting TV band database managers. The Commission may request additional information it deems necessary to assist it in making its decision. In the event the Commission makes changes in response to the pending petitions for reconsideration that affect the rules for the TV band device database or administrator, entities will be permitted to amend their filings as necessary.

The TV bands database is the subject of a docketed proceeding, ET Docket No. 04-186, and comments on this public notice and the proposals submitted hereto may be filed using the FCC's Electronic Comment Filing System (ECFS) as described below. Interested members of the public who wish to make their views known in connection with ET Docket No. 04-186 may submit comments for inclusion in ECFS.⁸ A simplified interface for ECFS has been implemented to facilitate consumer comment. Documents filed on ECFS may be accessed and reviewed on that system, which contains copies of written submissions and summaries of oral submissions regarding the white spaces proceeding.

Parties may file proposals for selection as a TV database manager with the Commission on or before the date listed above. All such filings should refer to **ET Docket No. 04-186**. Proposals may be filed using: (1) the Commission's Electronic Comment Filing System ("ECFS"), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies. See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS at <http://www.fcc.gov/cgb/ecfs/> or the Federal eRulemaking Portal at <http://www.regulations.gov>. Filers should follow the instructions provided on the website for submitting comments.
 - For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable

⁸ See FCC, Electronic Comment File Submission, http://fjallfoss.fcc.gov/prod/ecfs/upload_v2.cgi.

docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.

- Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by First-Class or Overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE, Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service First-Class, Express, and Priority mail must be addressed to 445 12th Street SW, Washington, D.C. 20554.

All filings must be addressed to the Commission's Secretary, Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. Parties should also send a copy of their filings to Hugh L. Van Tuyl, Office of Engineering and Technology, Federal Communications Commission, Room 7-A162, 445 12th Street, S.W., Washington, D.C. 20554, or by e-mail to hugh.vantuyl@fcc.gov. Parties must also serve one copy with the Commission's copy contractor, Best Copy and Printing, Inc. (BCPI), Portals II, 445 12th Street, S.W., Room CY-B402, Washington, D.C. 20554, (202) 488-5300, or via e-mail to fcc@bcpiweb.com.

Documents in **ET Docket No. 04-186** are available for public inspection and copying during business hours at the FCC Reference Information Center, Portals II, 445 12th Street, S.W., Room CY-A257, Washington, D.C. 20554. The documents may also be purchased from BCPI, telephone (202) 488-5300, facsimile (202) 488-5563, TTY (202) 488-5562, e-mail fcc@bcpiweb.com.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

Questions regarding this Public Notice may be directed to Alan Stillwell at (202) 418-2470 or Hugh L. Van Tuyl at (202) 418-7506.

By the Chief, Office of Engineering and Technology.

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