

August 12, 2010

**VIA ECFS [CORRECTED SUBMISSION FOR Filing confirmation #2010812727312]**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, DC 20554

Re: Notice of Ex Parte Communication, ET Docket No. 04-186 and GN Docket Nos. 09-51 and 09-157

Dear Ms. Dortch:

On August 10, 2010, the undersigned along with Thomas Stroup, CEO of Shared Spectrum Company (SSC), met with Louis Peraertz, Legal Advisor to Commissioner Clyburn and discussed matters related to the above-referenced proceedings and SSC's dynamic spectrum access (DSA) technology.

The discussion centered around how selected spectrum occupancy measurements and DSA technology can be used to achieve the Commission's spectrum-related objectives and recommendations in the National Broadband Plan. Attached are the slides used during the meeting to address issues related to (a) the spectrum inventory/dashboard initiative; (b) the TV White Spaces reconsideration proceeding; (c) the goal to make 500 megahertz of new spectrum available for broadband use; (d) facilitating the use of smart radios to enable more efficient use of spectrum by increasing opportunities for dynamic spectrum access technologies in different bands; and (e) enhancing secondary markets for spectrum resources.

SSC also provided Mr. Peraertz with a copy of a paper from the 2007 IEEE DySPAN conference examining how the introduction of DSA smart radio technologies fits within past precedents and current regulatory developments involving shared use of spectrum resources.<sup>1</sup>

With regard to TV White Spaces reconsideration issues in particular, we stressed the importance of retaining a sensing requirement, at least as an alternative interference avoidance mechanism, for television band devices (TVBDs). The elimination of the sensing requirement altogether would impact deployment of un-tethered or ad hoc networks and it should be left up to the marketplace to choose which interference avoidance approach, or both, provides the best performance and protection. Spectrum sensing data could also provide a valuable, independent check on the accuracy of localized information regarding protected operations contained in or missing from the geolocation database or in the likely case where the geolocation of the TVBDs cannot be accurately determined (*e.g.*, indoors).<sup>2</sup> We also raised

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<sup>1</sup> J.B. Bernthal, T.X. Brown, D.N. Hatfield, D.C. Sicker, P.A. Tenhula, P.J. Weiser, "Trends and Precedents Favoring a Regulatory Embrace of Smart Radio Technologies," DYSPAN 2007 - IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks, pp. 633-648, April 2007, available at <http://www.sharespectrum.com/publications/papers/SSC-DySPAN-2007-Bernthal.pdf>.

<sup>2</sup> We referenced estimates in recent technical journal articles saying that 50 to 66 percent of voice calls and 70 to 90 percent of data traffic occur indoors. See D. López-Pérez, A. Valcarce, G. De La Roche and J. Zhang, "OFDMA

questions about recent speculative and unsupported assertions that sensing would be too costly to make TVBD deployment economical, especially since SSC's sensing approach is completely software based. At the same time, we note that the marginal cost of implementing the geolocation requirements (including the fees charged by database managers) is currently unknown.

Pursuant to Section 1.1206 of the Commission's rules, a copy of this letter is being filed via ECFS in the above-captioned proceedings. Please do not hesitate to contact the undersigned with any questions.

Sincerely,

/s/ Peter A. Tenhula  
Peter A. Tenhula  
Vice President and General Counsel

Enclosure

cc (via e-mail): Louis Peraertz

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femtocells: A roadmap on interference avoidance," IEEE Communications Magazine, vol. 47, no. 9, pp. 41-48, Sept 2009 (citing G. Mansfield, "Femtocells in the US Market—business drivers and consumer propositions," FemtoCells Europe, AT&T, June 2008) (according to recent surveys, 50 percent of phone calls and 70 percent of data services will take place indoors in the next years); and G. de la Roche, A. Valcarce, D. López-Pérez, and J. Zhang, "Access control mechanisms for femtocells," IEEE Communications Magazine, vol. 48, no. 1, pp. 33-39, Jan. 2010 (citing S. Carlaw, "IPR and The Potential Effect on Femtocell Markets," FemtoCells Europe, London, UK, June, 2008) (Two-thirds of voice and 90 percent of data traffic occurs indoors).