

November 4, 2009

VIA ECFS

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

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

Dear Ms. Dortch:

On November 2, 2009, the undersigned along with Thomas Stroup, CEO of Shared Spectrum Company (SSC), met with Blair Levin, Stagg Newman, Arnab Das, Julius Knapp and Joseph Soban of the Commission's Broadband Team to brief them on the status of SSC's dynamic spectrum access (DSA) technology and to provide a technology demonstration. We also discussed issues related to the above-referenced proceedings.

In particular, we presented some of the key benefits of DSA critical to rural broadband deployment, which include the following:

- DSA-enabled devices can efficiently and safely use vacant spectrum in lower frequencies in the VHF and UHF bands, including the TV white spaces, to increase link range in rural areas so that existing infrastructure can be used as much as possible to reduce deployment costs;
- DSA reduces propagation loss by selecting the "best" frequency to achieve maximum data throughput and solves building penetration, foliage attenuation and other RF challenges;
- DSA technology can reduce device hardware costs by eliminating the need for expensive RF filtering components.¹

We also recommended that the Commission's National Broadband Plan facilitate access to spectrum resources for wireless broadband by:

- Promoting innovation and investment in cognitive radio and DSA technologies;²
- Conducting comprehensive and ongoing inventories of spectrum allocations, assignments and utilization;³

¹ See also Dr. Mark A. McHenry, Shared Spectrum Company, *Presentation and Remarks* at the Broadband Workshop on Wireless Technology (Aug. 13, 2009) (presentation available at http://www.broadband.gov/docs/ws_technology_wireless/ws_technology_wireless_McHenry.pdf ; transcript available at http://www.broadband.gov/docs/ws_06_tech_wireless_transcript.pdf).

² See also Shared Spectrum Company, *Reply Comments* in GN Docket No. 09-51 (July 21, 2009), available at <http://fjallfoss.fcc.gov/ecfs2/document/view?id=7019917825>.

³ *Id.*

- Establishing a framework for “multi-purposing” additional spectrum through DSA-enabled sharing with government and non-government incumbents; and
- Enhancing secondary market leasing.

With regard to the third point and the Commission’s interest in finding additional spectrum for wireless broadband services, SSC’s representatives asserted that a new spectrum access framework could focus on “multi-purposing” legacy bands with flexible overlay rights (and responsibilities) because traditional “repurposing” of bands that involve relocating all incumbents would be too difficult, too costly, too time consuming and, in light of DSA technology, unnecessary. Under this framework, a winner of the auction for overlay rights would have, for example, the flexibility to choose among several options regarding incumbents, including:

- Protecting incumbent operations with DSA sharing capabilities;
- Relocating or buying out incumbent operations;
- Providing broadband service or leased spectrum access to incumbents; or
- Negotiating other reasonable arrangements with incumbents.

Incumbents could “earn” flexibility to access broadband spectrum by pooling or leasing spectrum access or buying overlay rights.

Finally, SSC addressed the following near-term and ongoing spectrum-related opportunities through which the Commission could enhance innovation and wireless broadband access:

- Increase power limits in TV White Spaces and relax transmit mask requirements, especially in rural areas;⁴
- Explore secondary market leasing incentives;
- Collaborate closely with the National Telecommunications and Information Administration (NTIA), the Department of Defense (DoD), the National Science Foundation (NSF) and other agencies on research and development funding priorities, test-beds, field demonstrations and DSA use cases.
- Encourage and rely on industry standards activities surrounding the details for implementing DSA and other cognitive radio technologies, especially IEEE SCC 41/P1900 and the SDR Forum.⁵

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

cc: FCC Broadband Team Attendees (via e-mail)

⁴ See Shared Spectrum Company, *Ex Parte Letter*, ET Docket No. 04-186 (Oct. 23, 2008), available at <http://fjallfoss.fcc.gov/ecfs2/document/view?id=6520177861>.

⁵ See <http://www.scc41.org/> and <http://www.sdrforum.org/>.