

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of )  
)  
Wireless Telecommunications Bureau Seeks ) WT Docket No. 24-72  
Comment on Ways to Facilitate Access to )  
Currently Unassigned Auction Inventory )  
Spectrum in Light of the Ongoing Lapse of )  
Auction Authority )

**COMMENTS OF THE DYNAMIC SPECTRUM ALLIANCE**

The Dynamic Spectrum Alliance (“DSA”)<sup>1</sup> hereby submits these comments in response to the Federal Communications Commission’s (“FCC” or “the Commission”) Wireless Telecommunications Bureau (“WTB”) Public Notice (“PN”) in the above captioned proceeding in which it seeks comments on how to “make spectrum resources available for use in the public interest, in light of the ongoing lapse of the Commission’s auction authority.”<sup>2</sup>

---

<sup>1</sup> The Dynamic Spectrum Alliance is a global, cross-industry alliance focused on increasing dynamic access to unused radio frequencies. The membership spans multinational companies, small- and medium-sized enterprises, academic, research, and other organizations from around the world, all working to create innovative solutions that will increase the utilization of available spectrum to the benefit of consumers and businesses alike. A full list of the DSA members is available on the DSA’s website at [www.dynamicspectrumalliance.org/members/](http://www.dynamicspectrumalliance.org/members/).

<sup>2</sup> *Wireless Telecommunications Bureau Seeks Comment on Ways to Facilitate Access to Currently Unassigned Auction Inventory Spectrum for Wireless Radio Services in Light of the Ongoing Lapse of Auction Authority*, Public Notice, at ¶1 (rel. Mar 7, 2024) (“PN”).

One of DSA’s primary goals is to increase spectrum access through shared and more efficient use. Achievement of this goal is possible through the introduction of dynamic shared access – either using an automated Dynamic Spectrum Management System (“DSMS”)<sup>3</sup> that actively manages new entrants’ access to maximize use of spectrum while ensuring protection of incumbents and facilitating coexistence among new users, or through a carefully crafted set of rules that allow new unlicensed or licensed-by-rule operations under specific circumstances and operating parameters. As the Commission looks to solve challenges with the deployment of advanced wireless services across the country and ensure valuable spectrum is not sitting fallow, dynamic shared access can enable higher-capacity and lower-cost deployments in both urban and rural underserved areas and streamline access to spectrum that has been under-utilized.

In the PN, the Commission identifies three broad approaches to make unassigned spectrum (“Inventory Spectrum”) available for public use in the absence of auction authority, namely: 1) dynamic spectrum sharing techniques, 2) non-exclusive site-based licensing, and 3) leasing.<sup>4</sup> The DSA believes that the first option is preferable and recommends that the Commission adopt a license-by-rule framework similar to the successful Citizens Broadband Radio Service (“CBRS”) General Authorized Access (“GAA”) tier, together with a light-touch automated DSMS, to achieve its objectives. This is the same licensing and sharing framework that the DSA recommends be applied to the 42 GHz and lower 37 GHz bands to provide a harmonized approach to accessing 1100 MHz of valuable high band spectrum.

---

<sup>3</sup> See “Solving The Spectrum Crunch,” available at <https://www.dynamicspectrumalliance.org/solving-the-spectrum-crunch.pdf>

<sup>4</sup> PN at ¶3.

The DSA’s members have extensive experience in the development and implementation of innovative, non-exclusive licensing frameworks, supported by automated dynamic spectrum sharing solutions, including in the TV White Spaces, 3.5 GHz CBRS, and 6 GHz bands. We believe that the experience gained from these shared bands can be tailored to meet the specific opportunities and challenges of putting Inventory Spectrum to use, including minimizing harmful interference and promoting coexistence between and among various spectrum users.

The DSA believes that the introduction of new, non-exclusive licensing options supported by automated DSMS technology to coordinate specific deployment sites is the best path to support increased spectrum access and intensive use by a wide range of new users, which will in turn lead to more rapid deployment of new networks, services, and innovative business models. At its core, an automated DSMS is a software-based embodiment of the Commission’s rules for protecting incumbents and facilitating coordination among users while enabling broader access and more intensive use. Automated dynamic spectrum sharing lowers transaction costs, uses spectrum more efficiently, speeds time-to-market for new services, protects incumbents from interference with greater certainty, and generally expands the supply of wireless connectivity that is fast becoming, like electricity, a critical input for other industries and economic activity.<sup>5</sup>

---

<sup>5</sup> See Michael Calabrese, *Solving the Spectrum Crunch: Dynamic Spectrum Management Systems*, Dynamic Spectrum Alliance report (Oct. 2023) (describing the evolution and advantages of automated compared to manual or even database-assisted spectrum frequency coordination).

The experience the Commission and industry have gained from implementing innovative licensing frameworks supported by automated DSMS solutions should be applied to the challenges of enabling access to Inventory Spectrum. For example, sharing between CBRS operations in the 3.5 GHz band under the Commission's Part 96 rules is relevant for the protection of existing licensed services in bands where Inventory Spectrum is available. From an interference management perspective, there have been no reports of interference by co-channel or adjacent incumbents since the commercial launch of CBRS services, which demonstrates that automated DSMS tools can effectively enforce protection of certain users while also enabling new entrants into a band.

Likewise, from the perspective of increasing access to spectrum by a wide range of non-exclusive users, the CBRS experience is relevant. There are more than 370,000 CBRS devices (CBSDs) deployed by more than 1,200 different entities under, most of whom operate using the opportunistic access CBRS GAA tier. This unprecedented growth, which shows no sign of abating, demonstrates that the Commission's license-by-rule framework, supported by automated spectrum management tools, lowers barriers to entry, reduces spectrum acquisition costs, speeds time-to-market for new services, and results in more intensive and efficient spectrum usage than do exclusive licensing or legacy manual coordination approaches.

With regard to the other approaches proposed in the PN, the DSA notes that both the non-exclusive site-based licensing framework and leasing of Inventory Spectrum options could lead to spectrum warehousing in the absence of build-out requirements, the creation of barriers to entry for smaller operators and users, and ongoing administrative burdens for the Commission

and users alike. Leasing could result in the exclusion of smaller and rural operators if pricing is based on exclusive use of large geographic areas (as most of these Inventory Spectrum licenses are currently configured). Moreover, with respect to the Commission's lapsed auction authority, the leasing option creates a design dilemma since a lease offer (e.g., a reserve price) could attract mutually exclusive applications. Presumably the Commission could not respond to interest from more than one operator by raising the price since that would be tantamount to conducting an auction. Mitigating this dilemma by setting very high leasing prices would further exacerbate the exclusion of the sort of smaller and rural operators and enterprises who could otherwise gain access to the spectrum if it were made available through a coordinated sharing mechanism.

For all of these reasons, the DSA reiterates its preference for a license-by-rule framework supported by proven DSMS tools that can be adapted to the unique challenges of various Inventory Spectrum bands. The DSA is also supportive of the concept of experimental innovation zones where users could experiment with different technical approaches and dynamic spectrum sharing techniques to maximize efficient use and streamline access.

## **Conclusion**

The DSA appreciates the opportunity to comment on the Commission's NPRM exploring ways to increase access and efficient use of Inventory Spectrum to promote the deployment of advanced wireless services across the country. The DSA and its members have extensive experience in implementing innovative licensing frameworks, such as the CBRS license-by-rule model, supported by automated DSMS tools. This combination lowers barriers to entry, results

**Dynamic Spectrum Alliance Limited**  
3855 SW 153<sup>rd</sup> Drive  
Beaverton, OR 97003  
United States  
<http://www.dynamicspectrumalliance.org>



in more efficient and intensive spectrum use, speeds time-to-market for new services, and generally expands the supply of wireless connectivity. We look forward to working with the Commission and industry to apply this experience to Inventory Spectrum.

Respectfully submitted,

  
\_\_\_\_\_  
Martha SUAREZ  
President  
Dynamic Spectrum Alliance

April 8, 2024