

January 1, 2024

Mr. Sean Conway
Deputy Chief Counsel
National Telecommunications and Information Administration

Re: Implementation of the National Spectrum Strategy

Dear Mr. Conway -

The Dynamic Spectrum Alliance (DSA)¹ respectfully submits these comments in response to the National Telecommunications and Information Administration (NTIA) Notice of Opportunity for Public Input (Notice)² on the Implementation of the National Spectrum Strategy (NSS).³ We appreciate the opportunity to offer our perspectives on how NTIA can “accelerate U.S. leadership in wireless communications and other spectrum-based technologies and to unlock innovations that benefit the American people.”⁴

As discussed in our comments on the development of the NSS, the DSA welcomes NTIA’s efforts to ensure there is sufficient access to spectrum for both commercial and federal users. We fully agree that spectrum access “is vital to national security, critical infrastructure, transportation, emergency response, public safety, scientific discovery, economic growth, competitive next-generation communications, and diversity, equity, and inclusion.”⁵ We further agree that “[i]ncreased spectrum access will also advance U.S. innovation, connectivity, and competition, create high-paying and highly skilled jobs, and produce improvements to the overall quality of life.”⁶

To meet growing demand in a timely manner, the DSA strongly urges NTIA to begin immediately to “modernize spectrum policy and make the most efficient use possible of this vital national resource” by leveraging proven innovative licensing frameworks and dynamic spectrum management system (DSMS) tools and technologies. By harnessing the knowledge and experience that have made spectrum sharing a success in the Citizens Broadband Radio Service (CBRS) and 6 GHz bands, NTIA can

¹ The DSA is a global, cross-industry, not for profit organization advocating for laws, regulations, and economic best practices that will lead to more efficient utilization of spectrum, fostering innovation and affordable connectivity for all. Our membership spans multinationals, small-and medium-sized enterprises, as well as academic, research and other organizations from around the world all working to create innovative solutions that will benefit consumers and businesses alike by making spectrum abundant through dynamic spectrum sharing. A full list of DSA members is available on the DSA’s website at dynamicspectrumalliance.org/members.

² Available at <https://www.ntia.gov/sites/default/files/publications/ntia-nss-implementation-public-notice.pdf>.

³ Available at <https://www.ntia.gov/issues/national-spectrum-strategy>.

⁴ Notice at 2.

⁵ Id.

⁶ Id.

expedite, streamline, and expand access to additional frequencies that are critical to U.S. industrial competitiveness, national security, and digital inclusion. Given the historical success of the variety of spectrum sharing techniques in different bands designed to protect different incumbents, the DSA is of the view that there is no one size fit all solution to spectrum sharing. On the contrary, better results are achieved when sharing mechanisms are tailored to the characteristics and deployment conditions of the federal and commercial incumbents of each band.

The DSA acknowledges and appreciates NTIA's recognition of spectrum sharing and its critical role in achieving the goals articulated in the NSS.⁷ Given the knowledge and experience of our members in designing, developing, implementing, and operating DSMS solutions, the DSA looks forward to working together with NTIA and the other federal agencies to open more bands to increase commercial use on a shared basis.

Of the bands NTIA has identified in the NSS pipeline, the DSA believes the following three bands should be prioritized for further studies:

- Lower 3 GHz (3.1-3.45 GHz)
- 7 GHz (7125-8400 MHz)
- Lower 37 GHz (37.0-37.6 GHz)

The DSA encourages NTIA to accelerate commercial access to these bands by leveraging existing DSMS-based solutions. We already have significant experience from CBRS and 6 GHz sharing that can be readily adapted to specific conditions of the above bands with the aim of expanding access to these bands. There is no need to "reinvent the wheel" to enable sharing of these frequencies. Rather, existing and proven DSMS sharing tools and processes should be optimized and augmented, as needed, to address the commercial and federal incumbent requirements in each band.

For example, DSMS solutions similar to those that enable sharing in the CBRS band can be adapted to allow sharing of the Lower 3 GHz band. Sensing (e.g., the CBRS ESC), scheduling portals, and/or other automated notification systems can be combined with existing Spectrum Access System (SAS) software capabilities to protect existing systems. To address security concerns, information regarding federal options can be obscured so that the actual location or other critical operating parameters are securely maintained. The DSA recommends that NTIA begin work at once to collaborate with commercial DSMS solution providers on a coordination framework to facilitate spectrum sharing building on the work already done as part of the Emerging Mid-band Radar Spectrum Study (EMBRSS) and the experience gained from sharing in the CBRS band.

Another example of how existing DSMS solutions can be readily adapted to increase spectrum access is the Lower 7 GHz band. The DSA believes that commercial unlicensed low-power indoor and very low power devices can share the 7125-7250 MHz band with Federal incumbents applying the rules the FCC has already approved for the 6 GHz band. Standard power operations under the management of an Automated Frequency Coordination (AFC) system could also be possible. Combining this additional

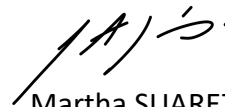
⁷ NSS at 1.

125 MHz with the adjacent 6 GHz band would unlock a fourth 320 MHz Wi-Fi channel that will support Wi-Fi 7 and future generations of Wi-Fi technology.

Finally, while the Lower 37 GHz band is relatively greenfield, a DSMS solution based on adaptation of CBRS and 6 GHz AFC techniques that take advantage of higher propagation losses of this frequency range could be straightforward and could be implemented quickly to facilitate more intensive use of the band by both federal and commercial users.

The DSA and our members are available to discuss these comments and provide any additional information and insights on dynamic spectrum management and its role in the implementation of the NSS.

Respectfully submitted,



Martha SUAREZ
President
Dynamic Spectrum Alliance