

August 1, 2023

The Manager
Major Spectrums Allocation Section
Australian Communications and Media Authority
PO Box 13112
Law Courts Melbourne VIC 8010

Re: Area-wide apparatus licences in the 3.8 GHz band in metropolitan and regional Australia

Dear Manager, Major Spectrum Allocation Section -

The Dynamic Spectrum Alliance (DSA)¹ respectfully submits these comments to the Australian Communications and Media Authority (ACMA) “Area-wide apparatus licences in the 3.8 GHz band in metropolitan and regional Australia” (Consultation). We appreciate the opportunity to offer our perspectives on how ACMA can meet its objectives of:

- supporting a range of use cases and users
- supporting digital connectivity and investment in regional Australia
- supporting the deployment of new and innovative technology
- promoting competitive markets
- supporting the efficient allocation and use of spectrum.

The DSA and our members work with regulatory authorities around the world to promote new and innovative approaches to spectrum management to increase spectrum access options and extend connectivity. Such innovative approaches include the adoption of new licensing frameworks that

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.

incorporate licensed, unlicensed, and license-by-rule access options. In addition, the DSA promotes the use of automated dynamic spectrum management systems (DSMS) to make more efficient use of spectrum and support a wide range of commercial services, including wide-area mobile and fixed broadband networks, as well as local and private networks, use cases and applications. We encourage ACMA to implement these concepts and tools as part of its allocation and licensing process for the 3.8 GHz band.

The DSA commends ACMA for its efforts to provide new spectrum access options to critical midband frequencies, while enabling coexistence with other co-channel and adjacent channel services. The framework ACMA has proposed in the Consultation is an excellent first step to increase spectrum access for a wide range of new users who will benefit from low-cost, localized access to spectrum to meet their emerging business needs as well as improve connectivity for consumers.

We also believe, however, that it will be important to take the next step by leveraging commercially available automated spectrum management technology and tools to further streamline and enhance users' experience with ACMA's proposed licensing process. The DSA anticipates that demand for streamlined, low-cost localized access will continue to grow. In order to meet this demand, automated, rather than manual, spectrum management processes will be critical to ensure spectrum is utilized productively and efficiently.

We call to ACMA's attention the recent report issued by the U.S. Institute for Telecommunication Science (ITS), entitled "An Analysis of Aggregate CBRS SAS Data from April 2021 to January 2023."² This report shows that growth of shared access in the 3.5 GHz Citizens Broadband Radio Service (CBRS) has been strong, with a "mean quarterly increase of 12.0% and a total increase of 121% over the 21-month analysis period." ITS notes that the majority of these deployments use spectrum in the licensed-by-rule General Authorized Access (GAA) tier, which does not require a user to apply for a license, but only to use certified equipment and to receive a spectrum assignment by one of the Spectrum Access System (SAS) administrators. The SAS administrators use DSMS technology to manage spectrum assignments for nearly 350,000 base stations, deployed by both 228 Priority Access License (PAL) holders and more than 1200 GAA operators, while protecting co-channel and adjacent channel incumbent operations from interference.

² Available at <https://its.ntia.gov/about-its/archive/2023/new-first-of-its-kind-report-provides-analysis-of-early-cbrs-deployment-data>

The use of automation, cloud-computing, and machine learning to increase spectrum efficiency and facilitate low-cost, ready access has directly contributed to the considerable growth of the CBRS band, much of which has been driven by enterprises for private wireless use cases, including utilities, retail, smart agriculture, smart warehousing, smart manufacturing, schools, healthcare institutions, etc. Applying cloud-computing capabilities to spectrum management also enables more predictable quality of service, better congestion avoidance, and improved coordination.

In anticipation of ongoing, and likely increased, demand for streamlined, low-cost access to spectrum via innovative shared licensing frameworks, we encourage ACMA to expand upon its proposed licensing framework for the 3.8 GHz band by implementing automated capabilities as soon as practicable.

The DSA and our members are available to discuss these comments and provide any additional information and insights on dynamic spectrum management and innovative licensing frameworks. We stand ready to work with ACMA to build on the success of existing spectrum sharing frameworks and bring the resulting benefits to Australia in the near future.



Respectfully submitted,

Martha SUAREZ
President
Dynamic Spectrum Alliance