Dynamic Spectrum Alliance Limited
http://www.dynamicspectrumalliance.org

July 10, 2026

National Information and Communications Technology Authority (NICTA)
Section 43, Lot 19 & 20, Frangipani Street, Hohola,
Port Moresby and regional office in Lae

Re: Draft Guideline on the operation of WAS/RLAN in the 6GHz Band

Dear Sir/Madam

The Dynamic Spectrum Alliance (DSA)[1] welcomes the opportunity to comment on NICTA's Draft Guideline on the Operation of WAS/RLAN in the 6 GHz Band for Papua New Guinea. The DSA supports regulatory approaches that expand access to licence-exampt spectrum, promote efficient use of national resources, and enable faster deployment of affordable broadband services for consumers, enterprises, and communities.

The draft represents an important step toward enabling Wi-Fi 6E/7 in Papua New Guinea by making the lower 6 GHz band available on a licence-exempt access while protecting incumbent services. The DSA particularly appreciates NICTA's technology-neutral and forward-looking approach, including its recognition that the upper 6 GHz band remains under review for WAS/RLANs as regional and international policy discussions continue.

In this submission, the DSA supports the proposed lower 6 GHz band framework and offers recommendations to preserve flexibility for future expansion, ensure coexistence with incumbent users, and maintain a standards-based regulatory approach that supports long-term ecosystem growth.

Sincerely,

Dr. Martha Suárez
President
Dynamic Spectrum Alliance

[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 list of DSA members is available on the DSA's website at: https://www.dynamicspectrumalliance.org/members.

1. Support for the lower 6 GHz framework

The DSA strongly supports NICTA's proposal to authorize WAS/RLAN use in the 5925–6425 MHz band on a licence-exempt basis. The lower 6 GHz band offers a contiguous 500 MHz block of spectrum, which the draft notes can support up to 25 channels of 20 MHz, 12 channels of 40 MHz, 6 channels of 80 MHz, 3 channels of 160 MHz, and 1 channel of 320 MHz, thereby enabling higher-capacity broadband applications and improved user experience in dense environments.

This approach is particularly valuable in Papua New Guinea, where affordable and scalable wireless connectivity can help extend digital access to homes, enterprises, schools, health facilities, and community networks. Experience in other markets has shown that unlicensed and lightly managed wireless technologies are often the fastest and most cost-effective tools for local access, enterprise networking, and community broadband expansion, especially where fibre deployment is incomplete or uneven.

The DSA also supports NICTA's proposed technical categories for initial deployment and encourages NICTA to allow LPI operation at up to 250 mW EIRP and 11 dBm/MHz PSD for indoor use (rather than the initially proposed 10 dBm/MHz PSD), together with VLP operation at up to 25 mW EIRP and 1 dBm/MHz PSD for indoor and outdoor use. These parameters strike an appropriate balance between enabling early market adoption and safeguarding incumbent services against harmful interference.

2. Coexistence and incumbent protection

The DSA recognizes that incumbent services in Papua New Guinea include fixed links, fixed-satellite service, and mobile services operating on a primary basis, and that VSAT uplink use is accommodated in the 5925–6725 MHz range. Protection of authorized incumbent services is therefore essential, and the DSA supports the draft's non-interference and non-protection framework for licence-exempt operations.

The draft appropriately states that licenced incumbent services retain priority protection status and that NICTA may require modification, relocation, power reduction, suspension, or cessation of operation where necessary to protect authorized radiocommunication services. That is a reasonable baseline approach for LPI and VLP operation in the lower band.

LPI and VLP devices can operate in the entire 6 GHz band without causing any harmful interference to incumbent systems. The work undertaken by the Federal Communications Commission (FCC) provides a relevant and well-documented reference point. In its 2020 decision, the FCC authorised LPI operation across the full 5925–7125 MHz band, including frequency ranges that overlap with incumbent broadcasting-related services (e.g. U-NII-6 and U-NII-8). This decision was supported by detailed technical studies, including simulation analyses assessing aggregate and worst-case interference scenarios. These studies concluded that, under the defined technical conditions—such as indoor operation, power limits, and building entry loss—RLAN systems would not cause harmful interference to incumbent services. Importantly, this regulatory framework has now been validated through real-world deployment. Since 2020, millions of 6 GHz-enabled devices operating under LPI conditions have been introduced into the U.S. market. To date, there have been no reported cases of harmful interference to incumbent services in these bands. This operational experience provides valuable empirical evidence that complements the initial simulation-based assessments.

In this context, the DSA encourages the NICTA to take into account these international findings when assessing sharing feasibility in the upper portions of the 6 GHz band. While national conditions may differ, the combination of detailed modelling and large-scale real-world deployment suggests that

coexistence between WAS/RLAN systems and incumbent services can be achieved under appropriately designed technical conditions.

3. Importance of preserving a path to the full 6 GHz band for LPI and VLP devices

While the DSA supports prompt finalization of the lower 6 GHz band framework, it respectfully recommends that NICTA explicitly preserve a path toward future access to the full 5925–7125 MHz band for unlicensed and shared use. The draft already notes that the upper 6 GHz band remains under review and that regional and international approaches are still evolving. That statement is important and should remain in the final document.

A fragmented WAS/RLAN 6 GHz policy can limit long-term benefits by reducing available wide channels, restricting future Wi-Fi 7 and later-generation use cases, and increasing device-certification and deployment complexity. The draft itself highlights that wider channels, including 160 MHz and 320 MHz channels, improve spectrum efficiency and support high-capacity wireless broadband services in dense deployment environments. Preserving the possibility of future expansion beyond 6425 MHz would therefore be consistent with the draft's own policy objectives.

NICTA may also wish to consider international developments, Australia is a useful regional example here, as its more comprehensive 6 GHz framework has enabled planning for an additional 160 MHz channel. That kind of approach preserves flexibility for high-capacity Wi-Fi deployments and leaves more room for future ecosystem growth.

In addition, in the U.K. Ofcom[2] believes that database-assisted coordination can enable more adaptive and flexible spectrum-sharing models. The relevance of such examples is not to replicate another jurisdiction's framework directly, but to illustrate how modern coordination tools can achieve more efficient spectrum use compared to static allocation models.

Papua New Guinea should carefully consider its own spectrum conditions, connectivity needs, and market demand for IMT before making any long-term decision. The DSA further recommends that NICTA avoid making any premature identification for IMT in the upper 6 GHz band. A technology-neutral approach gives Papua New Guinea greater flexibility to respond to actual ecosystem development and local connectivity needs.

4. Type approval and implementation recommendations

The DSA supports NICTA's requirement that all terminal equipment capable of using unlicensed WLAN services in the 6 GHz band must undergo type approval in accordance with the Type Approval Technical Standards Regulations, 2026. Clear and predictable equipment-approval procedures are important to enable lawful deployment, protect incumbent operations, and provide confidence to importers, service providers, and end users.

To support long-term market readiness, the DSA recommends that NICTA align type-approval and implementation rules as closely as possible with widely adopted international 6 GHz technical frameworks and standards. The draft already references IEEE 802.11ax, IEEE 802.11be, ETSI EN 303 687, ECC Decision (20)01, and Wi-Fi Alliance specifications in the channeling discussion. Maintaining that standards-based approach will reduce fragmentation, simplify vendor compliance, and improve availability of affordable equipment for the PNG market.

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[2] https://www.ofcom.org.uk/siteassets/resources/documents/consultations/category-3-4-weeks/consultation-expanding-access-to-the-6-ghz-band-for-commercial-mobile-and-wi-fi-services/main-document/expanding-access-to-the-6-ghz-band-for-commercial-mobile-and-wi-fi-services.pdf

5. Conclusion

The DSA commends NICTA for taking a constructive and forward-looking step toward enabling WAS/RLAN in 6 GHz in Papua New Guinea. The proposed lower-band framework is a sound starting point that can support better broadband performance, greater spectrum efficiency, and wider access to new generation Wi-Fi and digital services across the country.

With a few refinements, the final guidelines can both enable near-term deployment and preserve long-term flexibility. The DSA therefore supports prompt adoption of the lower 6 GHz framework and respectfully encourages NICTA to maintain a clear path toward future expansion for WAS/RLAN in the upper 6 GHz band.