\_\_\_\_\_ September 2019

To: The Manager

Spectrum Planning and Engineering Branch

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**Subject:** Comments to ACMA consultation on Spectrum Sharing, Overview and new approaches, IFC:25/2019.

**COMMENTS OF IEEE 802**

1. IEEE 802 LAN/MAN Standards Committee (LMSC) respectfully submits these responses to Independent Communications Authority of South Africa (ICASA). IEEE 802 is a committee of the IEEE Standards Association and Technical Activities, two of the Major Organizational Units of the Institute of Electrical and Electronics Engineers (IEEE). IEEE has about 420,000 members in about 190 countries and supports the needs and interests of engineers and scientists broadly. In submitting this document, IEEE 802 acknowledges and respects that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802. Therefore, this submission should not be construed as representing the views of IEEE as a whole[[1]](#footnote-1)
2. IEEE 802 LMSC is a leading consensus-based industry standards body, producing standards for wireless networking devices, including wireless local area networks (“WLANs”), wireless specialty networks (“WSNs”), wireless metropolitan area networks (“Wireless MANs”), and wireless regional area networks (“WRANs”). We appreciate the opportunity to provide these comments to ACMA.

# Comments to the Questions asked

1. Given current momentum in international markets and opportunities for other sharing models offered by 5G technologies, is it timely to develop a more detailed consideration of spectrum sharing opportunities in Australia?

examples of what is going in EU and FCC on 6GHz

a member is working on a contribution

The 6 GHz band has a mobile allocation already.

1. Are there recent developments in sharing techniques that industry and the ACMA should be aware of?

proposed sharing at 6GHz and how it works (AFC)

== refer to our ACMA comments on 5 year outlook\_\_ 18-19/0058

mention about LPI also

maybe – a reference to IEEE 802.19.1 sharing mechanisms.

a member is working on a contribution

1. What are the (potentially new) use cases that might benefit from secondary or tertiary access to spectrum and who benefits?

No comment from IEEE 802.

1. What are the potential challenges/impediments to the introduction of DSA in Australia—technical, industry capability, licensing and regulatory frameworks?

No comment from IEEE 802.

1. Facilitating spectrum access (e.g. monitoring, control, reporting, assignment) logically necessitates involvement from both government and industry. Are there any early thoughts on what an appropriate industry/government balance might look like? How might the ACMA facilitate shared spectrum access? How might the ACMA address this?

An example is WinnForum[[2]](#footnote-2) a U.S.-based, international non-profit, multi-stakeholder organization driving technology innovation in commercial, civil, and defense communications around the world. WInnForum members bring a broad base of experience in Software Defined Radio (SDR), Cognitive Radio (CR), and Dynamic Spectrum Access (DSA) technologies in diverse markets and at all levels of the wireless value chain to address emerging wireless communications requirements through enhanced value, reduced total life cost of ownership, and accelerated deployment of standardized families of products, technologies, and services.

1. What is the relevance of DSA examples such as the US Citizens Broadband Radio Service (CBRS) arrangements to the Australian spectrum environment? Are there other or lower cost alternatives to help inform access control and assignment systems of incumbent usage in a timely manner?

No comment from IEEE 802.

1. Under a multi-tier DSA approach:
   * + Tier 1 (highest priority or incumbent) users would be expected to share spectrum with lower tier users when not being utilised. Are there any specific licensing and/or regulatory arrangements that might incentivise the tier 1 users to release unutilised spectrum for lower-tier access?
     + Tier 2 and 3 users need to vacate spectrum (regardless of their service type or communication urgency) for tier 1 users to operate seamlessly. Do we see potential services/service types in Australia who would fit the criteria of second or third tier users? What are the incentives to adopt a conditional (lower priority) spectrum than an unconditional (full access) spectrum?

No comment from IEEE 802.

# Conclusion

1. IEEE 802 LMSC appreciates ACMA’s consultation and the scarcity of spectrum today. We appreciate your review and consideration of the comments above.

Respectfully submitted

By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. This document solely represents the views of the IEEE 802 LAN/MAN Standards Committee and does not necessarily represent a position of either the IEEE, the IEEE Standards Association or IEEE Technical Activities. [↑](#footnote-ref-1)
2. <https://ecfsapi.fcc.gov/file/1021349454593/WINNF-RC-5001-V1.0.0%20WInnF%20FCC%206%20GHz%20Unlic%20NPRM%20-%20Filed.pdf> [↑](#footnote-ref-2)