

**IEEE P802.18**  
**Radio Regulatory Technical Advisory Group (RR-TAG)**

Proposed Response to Japan Ministry of Internal Affairs and  
Communications (MIC) consultation on WRC-23

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This contribution proposed a response to:

Japan Ministry of Internal Affairs and Communications (MIC) consultation “Request for comments on Japan’s positions on the 2023 World Radiocommunication Conference (WRC-23)”

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Electronic filing

December 5, 2022

Re: Consultation “Request for comments on Japan’s positions on the 2023 World Radiocommunication Conference (WRC-23)”

Dear Japan MIC,

IEEE 802 LAN/MAN Standards Committee (LMSC) thanks Japan Ministry of Internal Affairs and Communications (MIC) for issuing the consultation “Request for comments on Japan’s positions on the 2023 World Radiocommunication Conference (WRC-23)” and the opportunity to provide feedback on this topic. The Consultation is an important mechanism for soliciting feedback that will provide MIC with the information necessary.

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 also produce standards for wired ethernet networks, and technologies produced by implementers of our standards are critical for all networked applications today.

IEEE 802 LMSC 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 400,000 members in over 160 countries. IEEE’s core purpose is to foster technological innovation and excellence for the benefit of humanity. In submitting this document, IEEE 802 LMSC acknowledges and respects that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802 LMSC. Therefore, this submission should not be construed as representing the views of IEEE as a whole<sup>1</sup>.

Please find below the responses of IEEE 802 LMSC to the agenda items 1.2 and 10.

**Agenda item 1.2 on 6425-7025 MHz and 7025-7125 MHz:**

The IEEE 802 LMSC believes that the world’s nations should not identify the 6425-7025 MHz and 7025-7125 MHz bands with IMT. A premature identification with IMT will lock this spectrum from unlicensed users, and block the operation of technologies in these bands that already exist and are capable of co-existing with primary users in the bands without causing harmful interference. Not identifying the bands with IMT at the WRC-23 (i.e., “No Change”) does not prevent the participating decision-makers from making an identification at a later time, should it prove necessary. However, identifying the bands with IMT too early limits both the options for and the number of technology innovators that can remain active in these bands.

In the past ten years the IEEE 802 LMSC has overseen the development of many technologies designed for operating in unlicensed bands at high utility and speed.

Standards such as IEEE Std 802.11ax-2021 [2] are already capable of operating in the 6425-7025 MHz and 7025-7125 MHz bands, and could, just like the IEEE Std 802.11ac-2013 [3] standard

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<sup>1</sup> This document solely represents the views of IEEE 802 LMSC and does not necessarily represent a position of either the IEEE or the IEEE Standards Association.

(“5 GHz Wi-Fi”) ten years before it come to provide great utilities for end-consumers. IEEE 802 technologies are designed not to cause interference with other users in these bands. The Wi-Fi industry even beyond IEEE 802 technical designs are taking the lead in a number of co-existence strategies for bands with alternative incumbent users, such as automated frequency coordination [4]. A new generation of IEEE 802.11 technologies currently under development in the IEEE 802.11be task group will continue to enhance and improve spectrum co-existence capacities, with prior research from for instance the ECC [5] indicating that access to larger, contiguous bandwidths in the 6 GHz band reduces the potential for harmful interference more than alternative solutions.

In addition, IEEE Std 802.15.6-2012 [1], which is a standard for short range, wireless communication in the vicinity of, or inside, a human body (but not limited to humans), can use existing ISM bands as well as frequency bands approved by national medical and/or regulatory authorities for applications including medical wireless body area network (BAN). For the channelization adopted by the standard,

- there is a channel plan number 5 that uses a channel with central frequency 6489.6 MHz and bandwidth 499.2 MHz as a part of the UWB high band, which falls into the 6425-7025 MHz band.
- there is a channel plan number 6 that uses a channel with central frequency 6988.8 MHz and bandwidth 499.2 MHz as a part of the UWB high band, which falls into the 7025-7125 MHz band.

The project P802.15.6ma, which is a revision of the standard IEEE Std 802.15.6-2012, intends to update and assist new use cases with enhanced dependability in human and vehicle bodies, while increasing the dependability support by such standard. It is expected that more IEEE 802.15.6 devices are added to the 6425-7025 MHz and 7025-7125 MHz bands

#### **Agenda item 10 on WRC-27:**

In 2017, IEEE 802 LMSC has published IEEE Std 802.15.3d-2017 [6] covering the frequency band 252-321 GHz for wireless communication. Currently, IEEE 802 LMSC is working on the revision of IEEE Std 802.15.3-2016 [7] that cover frequency band 275-450 GHz identified for the use by fixed and mobile service. Radiolocation service in the frequency bands 275-450 GHz may complement communications applications, especially in the context of joint communication and sensing. IEEE 802 LMSC does not support the identification of these frequency bands for radiolocation service for primary use and instead suggests to work towards an identification for secondary use or co-primary use at most.

#### **Conclusion**

IEEE 802 LMSC thanks the Japan MIC for providing this invaluable opportunity to provide this submission and kindly requests Japan MIC to take into account our responses in its decision towards WRC-23.

Respectfully submitted

By: /ss/.

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## References:

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- [2] "IEEE Standard for Information Technology - Telecommunications and Information Exchange between Systems Local and Metropolitan Area Networks - Specific Requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications Amendment 1: Enhancements for High-Efficiency WLAN," in *IEEE Std 802.11ax-2021 (Amendment to IEEE Std 802.11-2020)*, vol., no., pp.1-767, 19 May 2021, doi: 10.1109/IEEESTD.2021.9442429.
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- [5] Section 6.2.6 in CEPT ECC Report 302: Sharing and compatibility studies related to Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) in the frequency band 5925-6425 MHz (published 29 May 2019). [Available online](#) [accessed: 2022-12-07]
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