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

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| Proposed response to Saudi Arabia CST’s consultation re 6 GHz AFC |
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This document contains a proposed response to Saudi Arabia Communications, Space and Technology Commission (CST)’s consultation “Light Licensing Regulations Annex for the 6 GHz Frequency Band”.

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Electronic filing November 20, 2024

Re: Consultation “Light Licensing Regulations Annex for the 6 GHz Frequency Band”

Dear Respected Officer,

IEEE 802 LAN/MAN Standards Committee (LMSC) thanks Communications, Space and Technology Commission (CST) for providing an opportunity to comment on the consultation “Light Licensing Regulations Annex for the 6 GHz Frequency Band”.

IEEE 802 LMSC is a leading consensus-based open standards development committee for networking standards that are used by industry globally. It produces standards for networking devices, including wired and wireless local area networks (“LANs” and “WLANs”), wireless specialty networks (“WSNs”), wireless metropolitan area networks (“Wireless MANs”), and wireless regional area networks (“WRANs”). Technologies produced by implementers of our standards are a critical element for all networked applications today.

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IEEE 802 LMSC follows the Saudi Arabia’s regulatory activities regarding license-exempt short-range devices closely and applauds CST for developing a detailed light licensing regulation for the 6 GHz band using Automatic Frequency Control (AFC) technology. Please find below the responses of IEEE 802 LMSC to selected questions of this consultation.

**Question 2: Are there any other matters related to the Eligibility section that CST should consider?**

IEEE 802 LMSC commands CST’s continuous leadership in empowering the latest Wi-Fi technology by allocating the 6 GHz band (i.e., 5925 MHz – 7125 MHz) for license exempt operations.

IEEE 802 LMSC supports CST’s proposal in requiring any light license user in the 6 GHz band to deploy the 6 GHz WLAN Standard Power (SP) Access Points and Fixed Client devices under the control of an Automated Frequency Control (AFC) system.

**Question 10: Does the AFC have the necessary capabilities to collect the required data mentioned in section (8.1)?**

While IEEE 802 LMSC believes that the capabilities as mentioned in section (8.1) are sufficient, we suggest to replace “Location confidence level (percentage)” in (8.1.3.2) with “Location uncertainty (in meters), with a confidence level of 95%”, which aligns with the requirement in (7.5.1), as well as the regulations of the Federal Communications Commission[[2]](#footnote-2) and Innovation, Science and Economic Development Canada[[3]](#footnote-3).

**Question 9: Are there any other matters related to the Technical Requirements for Standard Power Access Points and Client Devices section that CST should consider?**

As we believe the indoor SP mode could be important in Saudi Arabia because of extensive indoor WLAN facilities[[4]](#footnote-4), IEEE 802 LMSC recommends that CST include indoor SP mode for its proceedings related to AFC systems and SP regulation. AFC systems are designed not only to enable SP mode for outdoor operation but also to improve the performance of indoor WLAN systems. Considering this, IEEE 802 LMSC recommends CST to consider authorizing indoor SP mode and relaxing the requirement in (2.1.6) of Appendix A to allow AFC systems to incorporate associated Building Entry Loss (BEL) in AFC system calculations. As an example, FCC already accepts requests for the inclusion of BEL through various waiver requests[[5]](#footnote-5).

**Conclusion**

IEEE 802 LMSC thanks CTU for the opportunity to provide this submission and respectfully requests that CST consider replacing “Location confidence level (percentage)” in (8.1.3.2) with “Location uncertainty (in meters), with a confidence level of 95%”, and investigate the possibility of authorizing indoor SP mode.

Respectfully submitted,

By: /ss/.

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1. This document solely represents the views of IEEE 802 LMSC and does not necessarily represent a position of either IEEE or the IEEE Standards Association or IEEE Technical Activities. [↑](#footnote-ref-1)
2. See 47 CFR §§ 15.407 (k)(9)(i), the Code of Federal Regulations, Office of the Federal Register, United States of America, <https://www.ecfr.gov/current/title-47/chapter-I/subchapter-A/part-15/subpart-E/section-15.407> [accessed: 3 November 2024]. [↑](#footnote-ref-2)
3. See 9.1.1, DBS-06 — Automated Frequency Coordination (AFC) System Specifications for the 6 GHz (5925-6875 MHz) Frequency Band, Innovation, Science and Economic Development Canada, <https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/devices-and-equipment/radio-equipment-standards/database-specifications-dbs/dbs-06-automated-frequency-coordination-afc-system-specifications-6-ghz-5925-6875-mhz-frequency-band> [accessed: 3 November 2024]. [↑](#footnote-ref-3)
4. Some examples of deployment where indoor SP is beneficial are where propagation environment requires additional link budget, such as airports, sport venues, concert halls, and warehouses. [↑](#footnote-ref-4)
5. See Federal Communications Commission: OET Announces Conditional Approval for 6 GHz Band AFC Systems, <https://www.fcc.gov/document/oet-announces-conditional-approval-6-ghz-band-afc-systems> [accessed: 3 November 2024] [↑](#footnote-ref-5)