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

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| Proposed Comments on FCC Second Further Notice of Proposed Rulemaking for 6GHz | | | | |
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This document drafts a proposed comments on FCC Second Further Notice of Proposed Rulemaking for 6GHz.

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Re: FCC Second Further Notice of Proposed Rulemaking for 6GHz

Dear Commission,

IEEE 802 LAN/MAN Standards Committee (LMSC) thanks US Federal Communications Commission (FCC) for issuing the call for comments on “Second Further Notice of Proposed Rulemaking” on 6GHz and for the opportunity to provide feedback.

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[[1]](#footnote-1).

Please find below the IEEE 802 LMSC’s comments on this consultation.

**General and Summary Comments**

IEEE 802 LMSC closely follows US FCC regulatory activities regarding radio local area network (RLAN) and strongly supports FCC proceedings on enabling Very Low Power (VLP) and Client to Client (C2C) communications in 5925-7125 MHz band.

Building on US leadership on Low Power Indoor (LPI) and Standard Power (SP) at 6GHz band, we believe that enablement of Peer-to-Peer (P2P) communications is the natural next step in optimum utilization of the 6GHz spectrum through multi-modal regulatory framework. More specifically, we believe that enabling VLP and C2C modes in the 6GHz band is critical in supporting comprehensive set of use cases and enabling the relevant segment of industries. VLP and C2C mode of communications offer means for spectral and power efficient operation that may be otherwise infeasible or inefficient specially for Real Time Applications (RTA) such as real-time gaming, cloud gaming, real-time video and robotics and industrial automation.

These applications typically have stringent latency, throughput and reliability performance requirement on the same or various traffic channels enabling the RTA use-cases [RTA TIG Report 11-18/2009r6 & P802.24 Vertical Applications Technical Advisory Group 24-23-0010r6].

IEEE 802 LMSC welcome and applauds the Commission decision on authorizing VLP operation in U-NII-5 and U-NII-7. We strongly support the Commission to permit VLP devices to also operate in the UNII-6 and U-NII-8 bands without geofencing. IEEE 802 LMSC supports the Commission consideration for increasing maximum VLP transmit power level but recommend increasing the maximum power spectral density for VLP to 1 dBm/MHz without geo-fencing capability restriction.

IEEE 802 LMSC noted the Commission addressing of the prohibition of direct communication of 6 GHz unlicensed client devices and the proposed exceptions at 14 dBm power level. IEEE 802 LMSC appreciate the exceptions but believe that enabling various use cases P2P communication require higher power than 14 dBm. More specifically IEEE 802 LMSC agrees that the Commission should permit direct communications between clients of indoor access points at allowable maximum power levels associated with the indoor access points’ clients.

IEEE 802 LMSC recommends the Commission to continue its leadership in enabling 6GHz unlicensed operation by promoting global harmonization of regulatory requirements for VLP and C2C.

[TBD: IEEE 802 Standards Supporting Real Time Application, Low Latency Communications and Peer to Peer Communications]

**Expanding Very Low Power Operations to U-NII-6 and U-NII-8**

* [Support expanding VLP operation to U-NII-6 and U-NII-8]

**Increasing Maximum Power Spectral Density of VLP Devices**

* [Propose increasing maximum PSD for VLP devices to 1 dBm/MHz limited to 14 dBm without requiring geo-fencing capability.
* With this change, the maximum transmit power is increased for 20MHz and 40MHz to 14 dBm matching that for 80/160/320MHz while promoting global harmonization of VLP mode.]

**Authorizing C2C Communications**

* [Propose authorizing C2C communication under LPI and Composite APs,
* Propose C2C communication at max transmit power of 24 dBm and -1 dBm/MHz,
* Support C2C operation through enabling at > -82 dBm/MHz and refresh interval of < 4s,
* Propose not limiting enabling signal from the same AP but may consider limiting to the same network (BSSID),
* Propose not limiting C2C communication at the same channel as the enabling channel(s) but to be flexible on any allowable channels (all channels for LPI and AFC allowed channels for SP)]

**Conclusion**

IEEE 802 LMSC supports enabling P2P communications at 6GHz through authorization of VLP and C2C regulatory modes. We respectfully request the Commission to consider our comments listed in this response. We hope that the new regulation will be enacted in a timely manner.

Respectfully submitted

By: /ss/.

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References:

[1] [TBD]

1. 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. [↑](#footnote-ref-1)