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

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| Draft response to NextNav’s petition for rulemaking | | | | |
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This document drafts a proposed response to NextNav’s petition for rulemaking (WT Docket No. 24-240)

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Electronic filing September 5, 2024

Re: WT Docket No. 24-240.

Dear Secretary,

IEEE 802 LAN/MAN Standards Committee (LMSC) thanks the Wireless Telecommunications Bureau and the Office of Engineering and Technology of the Federal Communications Commission for issuing a public notice on NextNav’s petition for rulemaking and for the opportunity to provide feedback on this important topic.

IEEE 802 LAN/MAN Standards Committee (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.

IEEE 802 LMSC is a committee of the IEEE Standards Association and of Technical Activities, two of the Major Organizational Units of the IEEE. IEEE has about 400,000 members in over 160 countries and its core purpose is to foster technological innovation and excellence for the benefit of humanity. IEEE is also a major accredited standards development organization whose standards are recognized worldwide. 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 petition for rulemaking.

**Discussion: 902-928 MHz band is extensively used by the unlicensed Part 15 operations including Wi-Fi CERTIFIED HaLow   -- thriving IoT ecosystem**

Permitting NextNav operations at significantly higher power levels, higher OOBE, removing existing restrictions on M-LMS operations, expanding operations to Fixed and Mobile interference will potentially disrupt the operation of 100s of millions of currently deployed IoT devices and entry-motion sensors used in retail which will subsequently disrupt ongoing technological development and investments along with impacting day-to-day operations. NextNav completely failed to demonstrate how coexistence with millions of Part 15 devices can be achieved.

**Discussion: Other spectrum bands lack sub-1GHz propagation characteristics.**

Sub-1 GHz frequency has better penetration capabilities due to longer range and cleaner propagation spectrum due to less interference which allows sensors and low power devices to operate more efficiently. This band is necessary for proper coverage since there is no alternative spectrum available for the Part 15 devices currently occupying this band.

**Discussion: NextNav wrongly asserts that “Part 15 devices do not have any allocation status in the Commission’s rules“ (Petition at FN 65)**

Part 15 devices are allocated see § 2.106, pg 31

**Discussion: NextNav fails to recognize that the Commission’s rules clearly define “harmful interference” from Part 15 devices to M-LMS**

By proposing to suppress §90.361, NextNav seeks to eliminate carefully balanced coexistence arrangement

**Discussion: NextNav proposal to eliminate the testing requirements of current rule section 90.353(d) is without merit and contrary to public interest**

NextNav contradicts itself by arguing that “Coexistence between the NextGen system and unlicensed Part 15 operations should be achievable” while seeking to eliminate requirement for “field tests” to demonstrate such coexistence.

**Discussion: NextNav wrongly asserts “The Lower 900 MHz Band Is Underutilized Due to Outdated Service and Technical Rules”**

The 900 MHz band is widely used by systems such as Wi-Fi HaLow and Wi-SUN FAN, both using IEEE802 standards for their underlying technology. IEEE standards-based devices have been operating in this band for more than a decade, with estimated deployment exceeding 100 million devices across North America. These include Smart Meters and Urban infrastructure, such as streetlighting and traffic management. In addition to HaLow, Wi-SUN, and LoRa deployments there are millions of proprietary 900MHz SCADA systems deployed to monitor municipal utilities, such as wastewater lift stations, potable water towers, street lights, meters (AMR), oil and gas, agriculture, and much more. Approval of the changes petitioned by NextNav would require cities to spend millions of dollars to migrate their existing systems to different technologies. This is a heavy burden to rural communities that do not have the resources to invest in replacing existing systems, if a viable alternative exists.

(*~References pending*)

Respectfully submitted

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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 or the IEEE Technical Activities. [↑](#footnote-ref-1)