

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
The 4.9 GHz Band Transferred from) WT Docket No. 00-32.
Federal Government Use)
)
To: The Commission)

VIA the ECFS

**COMMENTS OF IEEE 802.18 IN SUPPORT OF THE NPSTC PETITION FOR
RECONSIDERATION**

IEEE 802.18, the Radio Regulatory Technical Advisory Group (“RR-TAG”) within IEEE 802¹, hereby respectfully submits its Comments in support of the "*Petition for Reconsideration of the National Public Safety Telecommunications Council*" (the “Petition”) in the above-captioned Proceeding.²

IEEE 802, as a leading consensus-based industry standards body, produces standards for wireless networking devices, including wireless local area networks (“WLANs”), wireless personal area networks (“WPANs”), and wireless metropolitan area networks (“Wireless MANs”).

The members of IEEE 802.18 are interested parties in this Proceeding and we appreciate the opportunity to provide these Comments to the Commission.

¹ The IEEE Local and Metropolitan Area Networks Standards Committee (“IEEE 802” or the “LMSC”)

² This document represents the views of the IEEE 802.18 RR-TAG. It does not necessarily represent the views of the IEEE as a whole or the IEEE Standards Association as a whole.

1. IEEE 802.18 endorses Petitioner's request that the Commission reconsider its decision and adopt a less onerous emission mask than was specified in the Report and Order (the "R&O") in this Proceeding,³ in order to enable the use of equipment based on chipsets compliant with existing, widely adopted industry standards.
2. Enabling the use of such equipment will allow the Public Safety community to enjoy the benefits of economies of scale and competition, resulting in their ability to draw from a much larger potential selection of equipment at lower costs. This will benefit both the served agencies and taxpayers.
3. We agree with Petitioner that the mask identified in the amended Rules 90.210 (1),⁴ will explicitly preclude the use of widely available equipment compliant with IEEE 802.11a standards and that to meet the mask as currently specified would require the redesign of existing chipsets and equipment specifically for use in this band, creating a niche market that will result in much higher equipment costs with virtually no benefit to the Public Safety community.
4. We do not believe that the requirements of the mask proposed in the R&O are technically justified based on the broadband public safety services that are to be operated in the band.
5. Although the IEEE 802.11a emission mask allows slightly higher emissions in the adjacent channel than proposed in the R&O, we believe that Petitioner has shown that these levels of emissions with the IEEE 802.11a systems will not cause unacceptable inter-channel or inter-system interference.
6. The IEEE 802.11a mask also meets the provisions of 15.205 (restricted bands) and 15.209 (spurious emissions), which will adequately protect the Radio Astronomy service above the 4.990 GHz band edge.

³ See generally the Report and Order in WT Docket No. 00-32

⁴ *Id.*, at para. 49.

7. IEEE 802.18 also supports Petitioner's request for the use of equipment compliant with recognized national or international standards. Use of equipment conforming to widely accepted standards brings many benefits, including:

- interoperability with other existing systems and services
- re-use of equipment from other applications and services
- increased choice of products and services to the operators
- the ability for the public safety services to benefit from economies of scale (e.g. lower costs) produced by large commercial volumes.
- interoperability of services from different regions and across organizations (“mutual aid” capability)
- reduced inter-system interference and need for coordination

8. The use of the IEEE 802.11a channel mask will have minimal effect on in-band interference between channels and will permit the use of IEEE 802.11a compliant equipment, with the attendant benefits outlined above.

9. We also support Petitioner's request that the FCC re-consider the decision to not mandate the use of standards.

10. In the interest of interoperability and all of the advantages that come therewith, we believe that the Commission should, in this application, require the use of equipment that complies with a standard defined by accredited standards bodies (e.g. IEEE, TIA, ETSI, ITU-R).

11. There is precedent for this in the use of standardized systems in the cellular bands, and to not mandate the use of equipment conforming to widely-accepted, interoperable standards could very well create a “Tower of Babel” situation, where the very agencies and users that need to communicate are unable to do so because their equipment is not interoperable.

12. We do not believe that mandating the use of standards-based equipment will cause any sort of “technology stagnation,”

13. On the contrary, standards bodies such as IEEE 802 have been a veritable hotbed of technological innovation in recent years and, with each advance, have provided backward interoperability with previous generations of equipment – from multiple vendors – something that will be critical to the Public Safety community, with its limited budgets and need to gracefully and affordably transition to new technologies as they become available.

14. In light of this, in the interest of assuring that “technology stagnation” is not a possibility, Commission rules mandating the use of standards should be worded in such a way as to clearly reference the most current version of such standards.

SUMMARY AND CONCLUSIONS

15. For all of the reasons outlined herein, IEEE 802.18 respectfully requests that the Commission reconsider its decisions in the R&O in the instant Proceeding, specifically to:

- allow the use of the IEEE 802.11a emissions mask, and
- mandate the use of standards-based equipment in the interests of interoperability and the availability of economical, multiple-sourced equipment, rather than creating a non-standard “niche market” with much higher equipment costs.

Respectfully submitted,

/s/

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