IEEE P802.11  
Radio Regulatory Technical Advisory Group (RR-TAG)

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Abstract

This document contains a skeletal draft for the IEEE Standards Association (SA) position statement “Intelligent Spectrum Allocation and Management” for review.

It is based on the Scope discussions outline on slide #12 in document 18-22-0084r2.

IEEE Standards Association Position Statement

Intelligent Spectrum Allocation and Management

**<Introductory paragraph>**

The IEEE Standards Association (IEEE-SA) is home to several of the key global technologies using unlicensed spectrum globally. The IEEE-SA, through its participants, is a major contributor to the standardization of leading wireless technologies. It supports position that intelligent spectrum allocation and management is needed for both licensed and license-exempt technologies to meet the explosive growth in wireless data demand.

**<The IEEE 802 family of technologies for unlicensed spectrum>**

IEEE-SA participants develop wireless standards for unlicensed spectrum such as the IEEE 802.11Wireless LAN (WLAN) and IEEE Standard 802.15.4 Low Rate Wireless Networks (LRWN). While the former has reached wide fame under the brand-name Wi-Fi, the latter is used in applications ranging from car keys to agriculture.

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**<History>**

[Since the first IEEE 802 technologies were developed in the early 1990s to operate in a relatively small set of license-exempt spectrum bands, more frequency bands have been made available by regulators and policy-makers world-wide for unlicensed use. This highlights the important role IEEE 802 technologies play in the lives of individual people, but also in communities and for businesses.]

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**<Current applications, increasing future applications>**

Left from previous statement: Cognitive radio technologies and other spectrum sharing techniques should continue to be developed and standardized to establish fair and transparent spectrum sharing among devices that avoids harmful interference. The IEEE-SA, given its history of being a neutral and collaborative standards development organization, can facilitate the development of fora where these common rules and technologies can be standardized.

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**<Spectrum sharing, co-existence, .19>**

Left from previous statement: In addition to intelligent spectrum utilization, the increasing demands for wireless spectrum should also be met by introducing flexibility into the use of lightly used spectrum. This includes spectrum that is being used sparsely on a geographic basis (i.e., only used in certain specific locations) or temporally. In particular, the intelligent management brought about by cognitive radio and other related technologies can assure co-existence with devices and services which currently use these spectrum bands, albeit on a sporadic basis.

Technologies developed under the auspices of IEEE-SA's standardization activities also enable connectivity in underserved communities by efficiently using spectrum made available through advancements in other technology fields, such as digital television. Now, with basic access to the 1.2 GHz of the 6 GHz band limited to Very Low Power and Low Power Indoor use, Automatic Frequency Coordination using database determination of victim receiver locations, will enable full power use in this band.

**<Optimistic end-note>**

Left from previous statement: Wireless technology will continue to benefit humanity profoundly.

add more stuff? delete above?

The IEEE-SA has an important role to play in the development of intelligent spectrum allocation and management based upon transparent, standardized rules that also account for incumbent users.

*This statement was developed by the IEEE Standards Association and represents the considered judgement of a group of IEEE standards participants with expertise in the subject field. The position taken by the IEEE Standards Association does not necessarily reflect the views of IEEE or its other Organizational Units.*

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