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IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements—Part 19: Wireless Network Coexistence Methods

IEEE Computer Society

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LAN/MAN Standards Committee

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IEEE Std 802.19.1™-2018
(Revision of
IEEE Std 802.19.1-2014)

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Abstract: Radio-technology-independent methods for network-based coexistence among dissimilar or independently operated networks of unlicensed devices and dissimilar unlicensed devices are specified in this standard. The standard is written for geolocation-capable devices operating under general authorization such as television white spaces (TVWS), the 5 GHz license-exempt bands, and the general authorized access in the 3.5 GHz bands.

Keywords: 5 GHz license-exempt bands, coexistence service, database, general authorized access in 3.5 GHz bands, geolocation, IEEE 802®, IEEE 802.19™, IEEE 802.19.1™, network-based coexistence, radio coexistence, spectrum management, television white spaces

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Introduction

This introduction is not part of IEEE Std 802.19.1-2018, IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements—Part 19: Wireless Network Coexistence Methods.

This standard is a revision of IEEE Std 802.19.1-2014 and incorporates the amendment published in 2017 (IEEE Std 802.19.1a™-2017 [B3]).[1] The standard specifies radio-technology-independent methods for network-based coexistence among dissimilar or independently operated networks of unlicensed devices and dissimilar unlicensed devices. The standard is written for geolocation-capable devices operating under general authorization such as television white spaces (TVWS), the 5 GHz license-exempt bands, and the general authorized access in the 3.5 GHz bands. The standard addresses coexistence for IEEE 802® networks and devices and will also be useful for non-IEEE 802 networks and television band devices (TVBDs).

[1] Numbers in brackets correspond to the numbers in the bibliography in Annex H.

Contents

IEEE Standard for Information technology— Telecommunications and information exchange between systems— Local and metropolitan area networks— Specific requirements— Part 19: Wireless Network Coexistence Methods

1. Overview

1.1 Scope

This standard specifies radio technology independent methods for network-based coexistence among dissimilar or independently operated networks of unlicensed devices and dissimilar unlicensed devices. The standard is defined for geolocation-capable devices operating under general authorization such as television white spaces (TVWS), the 5 GHz license-exempt bands, and the general authorized access in the 3.5 GHz bands.

1.2 Purpose

The purpose of the standard is to enable the family of IEEE 802® wireless standards to most effectively use, under general authorization, frequency bands such as TVWS, the 5 GHz license-exempt frequency bands, and the general authorized access in the 3.5 GHz frequency bands by providing standard network-based coexistence methods among dissimilar or independently operated unlicensed devices and dissimilar unlicensed devices with geolocation capability. This standard addresses coexistence for IEEE 802 networks and devices and will also be useful for non-IEEE 802 networks and devices.