

# P802.19.1a

---

**Submitter Email:** [shellhammer@ieee.org](mailto:shellhammer@ieee.org)

**Type of Project:** Amendment to IEEE Standard 802.19.1-2014

**PAR Request Date:** 17-Jul-2015

**PAR Approval Date:** 03-Sep-2015

**PAR Expiration Date:** 31-Dec-2019

**Status:** PAR for an Amendment to an existing IEEE Standard

---

**1.1 Project Number:** P802.19.1a

**1.2 Type of Document:** Standard

**1.3 Life Cycle:** Full Use

---

**2.1 Title:** Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 19: TV White Space Coexistence Methods Amendment: Coexistence Methods for Geo-Location Capable Devices Operating Under General Authorization

---

**3.1 Working Group:** Wireless Coexistence Working Group (C/LM/WG802.19)

**Contact Information for Working Group Chair**

**Name:** Stephen Shellhammer

**Email Address:** [shellhammer@ieee.org](mailto:shellhammer@ieee.org)

**Phone:** (858) 658-1874

**Contact Information for Working Group Vice-Chair**

**Name:** Ivan Reede

**Email Address:** [i\\_reede@amerisys.com](mailto:i_reede@amerisys.com)

**Phone:** 514-620-8522

---

**3.2 Sponsoring Society and Committee:** IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

**Contact Information for Sponsor Chair**

**Name:** Paul Nikolich

**Email Address:** [p.nikolich@ieee.org](mailto:p.nikolich@ieee.org)

**Phone:** 8572050050

**Contact Information for Standards Representative**

**Name:** James Gilb

**Email Address:** [gilb@ieee.org](mailto:gilb@ieee.org)

**Phone:** 858-229-4822

---

**4.1 Type of Ballot:** Individual

**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:** 12/2016

**4.3 Projected Completion Date for Submittal to RevCom:** 10/2017

---

**5.1 Approximate number of people expected to be actively involved in the development of this project:** 12

**5.2.a. Scope of the complete standard:** 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 geo-location capable devices operating under general authorization such as the TV band White Spaces, the 5 GHz license-exempt bands and the general authorized access in 3.5 GHz bands.

**Changes in scope:** ~~The~~ This standard specifies radio technology independent methods for **network-based** coexistence among dissimilar ~~television or band independently devices operated (TVBDs)~~ **networks of unlicensed devices** and dissimilar ~~or unlicensed independently devices operated~~ **The networks standard of TVBDs defined for geo-location capable devices operating under general authorization such as the TV band White Spaces, the 5 GHz license-exempt bands and the general authorized access in 3.5 GHz bands.**

**5.2.b. Scope of the project:** This amendment to IEEE 802.19.1-2014 defines the network-based coexistence information exchange among networks and devices to enable network-based coexistence management. It specifies procedures and protocols for collection and exchanging coexistence information of heterogeneous networks, spectrum resource measurements and network performance metrics, such as packet error ratio, delay, etc, and information elements and data structures to capture coexistence information.

**5.3 Is the completion of this standard dependent upon the completion of another standard:** No

**5.4 Purpose:** The purpose of the standard is to enable the family of IEEE 802 Wireless Standards to most effectively use, under general

**Changes in purpose:** The purpose of the standard is to enable the family of IEEE 802~~(R)~~ ~~wireless~~ **Wireless standards** ~~Standards~~ to most

authorization, frequency bands such as TV band White Spaces, the 5GHz license-exempt bands and the general authorized access in 3.5GHz bands by providing standard network-based coexistence methods among dissimilar or independently operated networks of unlicensed devices and dissimilar unlicensed devices with geo-location capability. This standard addresses coexistence for IEEE 802 networks and devices and will also be useful for non IEEE 802 networks and devices.

effectively use, ~~television under white general space authorization, (TVWB)~~ frequency bands such as TV band White Spaces, the 5GHz license-exempt bands and the general authorized access in 3.5GHz bands by providing standard ~~network-based~~ coexistence methods among dissimilar or independently operated ~~TVBD~~ networks of ~~unlicensed devices~~ and dissimilar ~~TVBDs~~ unlicensed devices with ~~geo-location capability~~. This standard addresses coexistence for IEEE 802 networks and devices and will also be useful for non IEEE 802 networks and ~~TVBDs~~ devices.

**5.5 Need for the Project:** Existing IEEE 802 standards groups are developing standards and amendments, to comply with the regulatory rules for general authorization such as the TV band white spaces, the 5GHz license-exempt bands and the general authorized access in 3.5GHz bands. Other non-IEEE 802 wireless standards under general authorization such as the TV band White Spaces, the 5GHz license-exempt bands and the general authorized access in 3.5GHz bands are also in development.

**5.6 Stakeholders for the Standard:** Designers of MAC/PHY standards and implementations in the TV band white spaces, the 5 GHz license-exempt bands and the general authorized access in 3.5 GHz bands.

---

## Intellectual Property

**6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:** No

**6.1.b. Is the Sponsor aware of possible registration activity related to this project?:** No

---

**7.1 Are there other standards or projects with a similar scope?:** No

## 7.2 Joint Development

**Is it the intent to develop this document jointly with another organization?:** No

---

## 8.1 Additional Explanatory Notes (Item Number and Explanation):

Section 5.2b (Scope)  
The term "network-based" means that the information for coexistence among heterogeneous networks is exchanged over IP-based network.

Section 5.2b (Scope)

The term "geo-location capable" means the capability of identifying geographical coordinate with certain accuracy.

Section 5.2b (Scope)

The term "devices operating under general authorization" means that devices would be entitled to use the spectrum with no individual frequency planning/coordination (not be entitled to interference protection from the others) and includes that the devices are specified in Part 15, Title 47 of the Code of Federal Regulations such as TV bands, 900 MHz, 2.4 GHz, and 5 GHz bands and Part 96, Title 47 of the Code of Federal Regulations such as general authorized access in 3.5 GHz bands.