P802.19.3

Submitter Email: shellhammer@ieee.org
Type of Project: New IEEE Standard
PAR Request Date: 30-Sep-2018
PAR Approval Date: 05-Dec-2018
PAR Expiration Date: 31-Dec-2022
Status: PAR for a New IEEE Standard

1.1 Project Number: P802.19.3
1.2 Type of Document: Recommended Practice
1.3 Life Cycle: Full Use

2.1 Title: Recommended Practice for Local and Metropolitan Area Networks - Part 19: Coexistence Methods for 802.11 and 802.15.4 based systems operating in the Sub-1 GHz Frequency Bands

3.1 Working Group: Wireless Coexistence Working Group (C/LM/WG802.19)
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3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 03/2020
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 02/2021

5.1 Approximate number of people expected to be actively involved in the development of this project: 15
5.2 Scope: This recommended practice provides guidance on the implementation, configuration and commissioning of systems sharing spectrum between IEEE Std 802.11ah-2016 and IEEE Std 802.15.4 Smart Utility Networking (SUN) Frequency Shift Keying (FSK) Physical Layer (PHY) operating in Sub-1 GHz frequency bands.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: This document will not include a purpose clause.
5.5 Need for the Project: Many millions of devices based on IEEE Std 802.15.4 are currently operating in Sub-1 GHz frequency bands, and the field is expanding rapidly. Critical applications, such as grid modernization (smart grid) and internet of things (IoT) are using the low to moderate data rate capabilities of IEEE Std 802.15.4. IEEE Std 802.11ah-2016 may operate in the same Sub-1 GHz frequency bands and provides higher data rate capabilities than IEEE Std 802.15.4. In consideration of the current usage, as well as anticipation of yet unforeseen usage models enabled by the standards within the scope of this recommended practice, and to fully realize the opportunity for successful deployment of products sharing the spectrum, strategies and tactics to achieve good coexistence performance are critical.
This recommended practice enables IEEE Std 802.15.4 and IEEE Std 802.11ah-2016 to most effectively operate in license exempt Sub-1 GHz frequency bands, by providing best practices and coexistence methods. This recommended practice uses existing features of the referenced standards and provides guidance to implementers and users of IEEE 802(R) wireless standards.

5.6 Stakeholders for the Standard: Silicon vendors, equipment manufacturers, and utility network operators, with applications including smart grid, smart city, internet of things (IoT), home automation, medical and environmental monitoring

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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

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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

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8.1 Additional Explanatory Notes: As indicated in 5.2, the recommended practice will cite IEEE Std 802.11ah-2016 and IEEE Std 802.15.4-2016.

IEEE Std 802.11ah-2016, "Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications Amendment 2: Sub 1 GHz License Exempt Operation," 7 December 2016

IEEE Std 802.15.4-2015, "IEEE Standard for Low-Rate Wireless Networks," 5 December 2015

IEEE Std 802.15.4q-2016, "IEEE Standard for Low-Rate Wireless Networks Amendment 2: Ultra-Low Power Physical Layer," 22 September 2016

IEEE Std 802.15.4u-2016, "IEEE Standard for Low-Rate Wireless Networks Amendment 3: Use of the 865 MHz to 867 MHz Band in India," 29 January 2016

IEEE Std 802.15.4v-2017, "IEEE Standard for Low-Rate Wireless Networks Amendment 5: Enabling/Updating the Use of Regional Sub-GHz Bands," 12 May 2017