P802.15.22.3 PAR Extension

This PAR is valid until 31-Dec-2019. The original PAR was approved on 21-Aug-2014, modified on 14-May-2018 and then extended on 05-Dec-2018.

PAR Extension Request Date: 15-Jul-2019
Extension Request Submitter Email: bheile@ieee.org
Number of Previous Extensions Requested: 1
1. Number of years that the extension is being requested: 1
2. Why an Extension is Required (include actions to complete): This is a contingency extension. Project moving into SA ballot this month. This is to cover the unexpected during SA Ballot that could potentially delay completion of ballot until after the end of 2019.

Project moving into SA Ballot on July 20, 2019. This is to cover the unexpected during SA Ballot that could potentially delay completion of ballot until after the end of 2019

3.1. What date did you begin writing the first draft: 31-May-2018
3.2. How many people are actively working on the project: 10
3.3. How many times a year does the working group meet?
In person: 6
Via teleconference: 6
3.4. How many times a year is a draft circulated to the working group: 6
3.5. What percentage of the Draft is stable: 100%
3.6. How many significant work revisions has the Draft been through: 1
4. When will/did initial sponsor balloting begin: 01-Aug-2019 July 20, 2019
When do you expect to submit the proposed standard to RevCom: 01-Oct-2019 January 20, 2020 (or 1 Feb, 2020 if that is the only option)
Has this document already been adopted by another source? (if so please identify): No

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For an extension request, the information on the original PAR below is not open to modification.

Submitter Email: apurva_mody@yahoo.com
Type of Project: Modify Existing Approved PAR
PAR Request Date: 09-Mar-2018
PAR Approval Date: 14-May-2018
PAR Expiration Date: 31-Dec-2019
Status: Modification to a Previously Approved PAR
Root PAR: P802.22.3 **Approved on:** 21-Aug-2014

1.1 Project Number: P802.15.22.3
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Spectrum Characterization and Occupancy Sensing

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3.1 Working Group: Wireless Personal Area Network (WPAN) Working Group (C/LM/WG802.15)
Contact Information for Working Group Chair
Name: Robert Heile
Email Address: bheile@ieee.org
Phone: 781-929-4832
Contact Information for Working Group Vice-Chair
Name: PATRICK KINNEY
Email Address: pat.kinney@kinneyconsultingllc.com
Phone: 847-960-3715

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
Phone: 8572050050
Contact Information for Standards Representative
Name: James Gilb
Email Address: 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: 11/2018
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2019

5.1 Approximate number of people expected to be actively involved in the development of this project: 10

5.2 Scope: This Standard defines a Spectrum Characterization and Occupancy Sensing (SCOS) System. It defines the formats for system configuration and spectrum measurement parameters. It includes protocols for reporting measurement information that allow the coalescing of results from multiple systems. The standard leverages interfaces and primitives that are derived from IEEE Std. 802.22-2011. It uses any available transport mechanism to control and manage the system, and to share sensing data. The standard provides means for conveying value added sensing information to various spectrum database services.

Changes in scope: This Standard defines a Spectrum Characterization and Occupancy Sensing (SCOS) System. It ~~specifies~~defines ~~measurement~~the ~~parameters~~formats for system configuration and ~~device~~spectrum ~~behaviors~~measurement parameters. It includes protocols for reporting measurement information that ~~enable~~allow the coalescing ~~the~~of results from multiple ~~such devices~~systems. The standard leverages interfaces and primitives that are derived from IEEE Std. 802.22-2011~~;~~. ~~and~~It uses any ~~on-line~~available transport mechanism ~~available~~ to ~~achieve~~control and manage the ~~control~~system, and ~~management~~to ~~of~~share ~~the~~sensing ~~system~~data. ~~Interfaces~~The ~~and~~standard ~~primitives~~provides ~~are~~means ~~provided~~ for conveying value added sensing information to various spectrum ~~sharing~~ database services~~. This standard specifies a device operating in the bands below 1 GHz and a second device operating from 2.7 GHz to 3.7 GHz~~.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: The purpose is to specify operating characteristics of the components of the Spectrum Characterization and Occupancy Sensing System.

5.5 Need for the Project: Recently, Federal Communications Commission (FCC), National Telecommunications and Information Administration (NTIA) in the United States and other regulators such as OfCom UK, have broadened their horizons for cooperative spectrum sharing approaches in order to optimize spectrum utilization. For example see the PCAST Report (See §8.1). FCC/ NTIA are in the process of opening new spectrum bands which specifically require multi-levels of regulated users (e. g. primary, opportunistic etc.) to share the spectrum. There is emphasis on greater spectrum efficiencies, spectrum sharing and spectrum utilization, which requires not only database driven configuration of the radios, but systems that can provide spectrum occupancy at a particular location and at a particular time.

This standard will help fulfil this need by creating a Spectrum Characterization and Occupancy Sensing System. This will enable improved spectrum utilization and support for other shared spectrum applications, hence benefitting the regulators and users alike.

5.6 Stakeholders for the Standard: Manufacturers and users of semiconductor, personal computer, wireless devices and sensors, consumer electronic devices, mobile devices, wireless internet service providers etc.

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?: Yes
If Yes please explain: There are no completed or on-going activities that are similar to the proposed SOS project within the IEEE 802 community. However, there are a few other similar standards in this space which are listed below.

a. IEEE Std. 1900.6-2011: IEEE Standard for Spectrum Sensing, Interfaces and Data Structures for Dynamic Spectrum Access and other Advanced Radio Communications Systems

b. IEEE P1900.6a: IEEE Draft Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and other Advanced Radio Communication Systems Amendment: Procedures, Protocols and Data Archive Enhanced Interfaces

It is to be noted that although these P1900 standards describe communication protocols, they do not specify the operating characteristics for the sensor.

and answer the following
Sponsor Organization: IEEE P1900 Dynamic Spectrum Access Networks Standards Committee
Project/Standard Number: IEEE Std. 1900.6-2011
Project/Standard Date: 22-Apr-2011

Project/Standard Title: a. IEEE Std. 1900.6-2011: IEEE Standard for Spectrum Sensing, Interfaces and Data Structures for Dynamic Spectrum Access and other Advanced Radio Communications Systems

b. IEEE P1900.6a: IEEE Draft Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and other Advanced Radio Communication Systems Amendment: Procedures, Protocols and Data Archive Enhanced Interfaces

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: This provides further explanation to Item 5.5 on the Need the Spectrum Characterization and Occupancy Sensing System.

[1] President' s Council of Advisors on Science and Technology Report - Realizing Full Potential of the Government Held Spectrum to Spur Economic Growth.
http://www.whitehouse.gov /sites/default/files/microsites/ostp/pcast_spectrum_report_final_july_20_2012.pdf

Note from the NesCom admin: after the June 2019 NesCom meeting, this PAR number was changed from P802.22.3 to P802.15.22.3, and the WG is now C/LM/WG802.15.