

P802.22a

Submitter Email: apurva_mody@yahoo.com

Type of Project: Amendment to IEEE Standard 802.22-2011

PAR Request Date: 25-Jul-2011

PAR Approval Date: 10-Sep-2011

PAR Expiration Date: 31-Dec-2015

Status: PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.22a

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: IEEE Standard for Information Technology--Telecommunications and information exchange between systems Wireless Regional Area Networks (WRAN)--Specific requirements Part 22: Cognitive Wireless RAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications: Policies and Procedures for Operation in the TV Bands Amendment: Management and Control Plane Interfaces and Procedures and enhancement to the Management Information Base (MIB)

3.1 Working Group: Wireless Regional Area Networks Working Group (C/LM/WG802.22)

Contact Information for Working Group Chair

Name: Apurva Mody

Email Address: apurva_mody@yahoo.com

Phone: 404-819-0314

Contact Information for Working Group Vice-Chair

Name: Gerald Chouinard

Email Address: gerald.chouinard@crc.ca

Phone: 613-998-2500

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: 857.205.0050

Contact Information for Standards Representative

None

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 11/2012

4.3 Projected Completion Date for Submittal to RevCom: 05/2013

5.1 Approximate number of people expected to be actively involved in the development of this project: 15

5.2 Scope: This amendment defines a new clause for Management and Control Plane Interfaces and Procedures to the existing IEEE Std 802.22-2011 for operation in VHF/UHF TV broadcast bands between 54 MHz and 862 MHz. The Management Information Base (MIB) structure enhancements include changes to comply with the ASN.1 format and support for the new clause. Modifications to the existing clause on Primitives for Cognitive Radio Capabilities to align it with the content in the MIB clause and the new clause are also defined.

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

5.4 Purpose: The purpose of this project is to enhance the definition of managed objects to enable efficient control and management of IEEE 802.22 devices operating in VHF/UHF TV broadcast bands between 54 MHz and 862 MHz. This amendment creates standardized management and control interfaces as well as procedures that allows a standardized specification between various external entities (e.g., Network Control and Management System, authorized TV Band Database Service, Spectrum Sensing Function, Geolocation Function, etc.) and the IEEE 802.22 entities.

5.5 Need for the Project: This project is needed to extend upon the IEEE Std 802.22-2011 in enhancing the Management Information Base (MIB) definitions and create a new Management and Control Plane Interfaces and Procedures. It is in the best interest of users and the industry to strive for a standardized interface and managed objects that are used for configuration and monitoring of the IEEE 802.22 wireless systems in order to develop broad applicability and ensure efficient control. Configuration and management of cognitive radios in Television Whitespaces (TVWS) requires extensive control and management interfaces. TVWS are the unused or vacant TV channels by the incumbents at a particular time and at a particular location. Also, given the large footprint of 802.22 networks as well as support for fixed and portable devices, remote control and management of these devices is a necessity.

5.6 Stakeholders for the Standard: Manufacturers and users of IEEE Std 802.22-2011 devices.

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):