**Submitter Email:** [apurva\_mody@yahoo.com](mailto:apurva_mody%40yahoo.com)  
**Type of Project:** Revision to IEEE Standard 802.22-2011

**1.1 Project Number:** P802.22  
**1.2 Type of Document:** Standard  
**1.3 Life Cycle:** Full Use

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| **2.1 Title:** Standard for Information technology-- Local and metropolitan area networks-- Specific requirements-- Part 22: Cognitive Radio Wireless RAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Policies and procedures for operation in the Bands that Require Spectrum Sharing |  | **Changes in title:** ~~IEEE~~ Standard for Information technology-- Local and metropolitan area networks-- Specific requirements-- Part 22: Cognitive Radio Wireless RAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Policies and procedures for operation in the ~~TV~~ Bands that Require Spectrum Sharing |

**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](mailto:apurva_mody%40yahoo.com)  
   **Phone:** 404-819-0314  
**Contact Information for Working Group Vice-Chair**  
   **Name:** Gerald Chouinard  
   **Email Address:** [gerald.chouinard@sympatico.ca](mailto:gerald.chouinard%40sympatico.ca)  
   **Phone:** 819-684-2490

**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%40ieee.org)  
   **Phone:** 857.205.0050  
**Contact Information for Standards Representative**  
   **Name:** James Gilb  
   **Email Address:** [gilb@ieee.org](mailto:gilb%40ieee.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:** 11/2014  
**4.3 Projected Completion Date for Submittal to RevCom:** 05/2015

**5.1 Approximate number of people expected to be actively involved in the development of this project:** 30

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| **5.2 Scope:** This standard specifies the air interface, including the cognitive radio medium access control layer (MAC) and physical layer (PHY), of point-to-multipoint wireless regional area networks comprised of a professional fixed base station with fixed and portable user terminals operating in the bands that require spectrum sharing such as VHF/UHF TV broadcast bands between 54 MHz to 862 MHz. |  | **Changes in scope:** This standard specifies the air interface, including the cognitive radio medium access control layer (MAC) and physical layer (PHY), of point-to-multipoint wireless regional area networks comprised of a professional fixed base station with fixed and portable user terminals operating in the bands that require spectrum sharing such as VHF/UHF TV broadcast bands between 54 MHz to 862 MHz. |

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

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| **5.4 Purpose:** This standard is intended to enable deployment of interoperable IEEE 802(R) multivendor wireless regional area network products, to facilitate competition in broadband access by providing alternatives to wireline broadband access and extending the deployability of such systems into diverse geographic areas, including sparsely populated rural areas, while preventing harmful interference to incumbent licensed services in the bands that require spectrum sharing such as VHF/ UHF TV broadcast bands. This Revision project merges the P802.22a Amendment on MIBs and Management Plane Procedures to the published IEEE Std. 802.22-2011. The revision project merges the P802.22b amendment on Enhancements for Broadband Services and Monitoring Applications into the published IEEE Std. 802.22-2011. This amendment makes technical corrections to various clauses and annexes. Finally this revision introduces a new clause that provides ways in which the IEEE 802.22 Standard may be used in other frequency bands that require spectrum sharing. |  | **Changes in purpose:** This standard is intended to enable deployment of interoperable IEEE 802(R) multivendor wireless regional area network products, to facilitate competition in broadband access by providing alternatives to wireline broadband access and extending the deployability of such systems into diverse geographic areas, including sparsely populated rural areas, while preventing harmful interference to incumbent licensed services in the bands that require spectrum sharing such as VHF/ UHF TV broadcast bands. This Revision project merges the P802.22a Amendment on MIBs and Management Plane Procedures to the published IEEE Std. 802.22-2011. The revision project merges the P802.22b amendment on Enhancements for Broadband Services and Monitoring Applications into the published IEEE Std. 802.22-2011. This amendment makes technical corrections to various clauses and annexes. Finally this revision introduces a new clause that provides ways in which the IEEE 802.22 Standard may be used in other frequency bands that require spectrum sharing. |

**5.5 Need for the Project:** There is a large, untapped market for broadband wireless access in rural and other unserved/underserved areas where wired infrastructure cannot be economically deployed. Products based on this standard will be able to serve those markets and increase the efficiency of spectrum utilization in spectrum currently allocated to, but unused by, the TV broadcast service.  
  
Also, it is a requirement of the Standards Association that the Sponsor shall initiate a revision of a standard whenever any of the material in the standard (including all amendments, corrigenda, etc.) become obsolete or incorrect, or if multiple amendments to a base standard are being worked on or near completion three years after its approval or most recent reaffirmation. Such is the case here where there are two amendments (viz. P802.22a on MIBS and Management Plane Procedures and P802.22b on Enahcements for Broadband Services and Monitoring Applications) that are likely to complete in the near future. Furthermore, the IEEE 802.22 Working Group has identified some clauses that require correction and maintenance. The intention is to incorporate the amendments P802.22a, P802.22b, make corrections to the IEEE Std. 802.22-2011 as well as to add a new clause that provides ways in which the IEEE 802.22 Standard may be used in other frequency bands that require spectrum sharing.  
  
**5.6 Stakeholders for the Standard:** Manufacturers and users of semiconductor, personal computer, enterprise networking devices, consumer electronic devices, home networking equipment, mobile 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?:** Yes  
**If Yes please explain:** IEEE P802.11AF, P802.15.4m, IEEE P1900.7  
  
**and answer the following**   **Sponsor Organization:** IEEE 802 and DySPAN-SC  
   **Project/Standard Number:** IEEE P802.11AF, P802.15.4m, IEEE P1900.7  
   **Project/Standard Date:**   
   **Project/Standard Title:** IEEE P802.11AF, P802.15.4m, IEEE P1900.7  
**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):** It is a requirement of the Standards Association that the Sponsor shall initiate a revision of a standard whenever any of the material in the standard (including all amendments, corrigenda, etc.) become obsolete or incorrect, or if multiple amendments to a base standard are being worked on or near completion three years after its approval or most recent reaffirmation. Such is the case here where there are two amendments (viz. P802.22a on MIBS and Management Plane Procedures and P802.22b on Enahcements for Broadband Services and Monitoring Applications) that are likely to complete in the near future. Furthermore, the IEEE 802.22 Working Group has identified some clauses that require correction and maintenance. The intention is to incorporate the amendments P802.22a and P802.22b as well as adding a new clause that provides ways in which the IEEE 802.22 Standard may be used in other frequency bands that require spectrum sharing.