

Proposed Project Authorization Request P802.16s

Submitter Email: r.b.marks@ieee.org

Type of Project: Amendment to IEEE Standard 802.16-2012

PAR Request Date: 13-Nov-2015

PAR Approval Date:

PAR Expiration Date:

Status: Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.16s

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Air Interface for Broadband Wireless Access Systems – Amendment for Fixed and Mobile Wireless Access in Channel Bandwidth up to 1.25 MHz

3.1 Working Group: Broadband Wireless Access Working Group (C/LM/WG802.16)

Contact Information for Working Group Chair

Name: Roger Marks

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Contact Information for Working Group Vice-Chair

Name: Harry Bims

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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:

Phone:

Contact Information for Standards Representative

Name: James Gilb

Email Address:

Phone:

3.3 Joint Sponsor: IEEE Microwave Theory and Techniques Society/Standards Coordinating Committee (MTT/SCC)

Contact Information for Sponsor Chair

Name: Nick Ridler

Email Address:

Phone:

Contact Information for Standards Representative

Name: Nick Ridler

Email Address:

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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: 07/2016

4.3 Projected Completion Date for Submittal to RevCom: 02/2017

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

5.2.a. Scope of the complete standard: This standard specifies the air interface, including the medium access control layer (MAC) and physical layer (PHY), of combined fixed and mobile point-to-multipoint broadband wireless access (BWA) systems providing multiple services. The MAC is structured to support the WirelessMAN-SC, WirelessMAN-OFDM, and WirelessMAN-OFDMA PHY specifications, each suited to a particular operational environment.

5.2.b. Scope of the project: This project specifies WirelessMAN-OFDMA TDD operation in exclusively-licensed spectrum with channel bandwidth up to 1.25 MHz, including 100 kHz and 1 MHz explicitly. The project amends Clause 12 of IEEE Std 802.16, adding a new system profile and amending other clauses as required to support the narrower channel widths.

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

5.4 Purpose: The amendment facilitates the development of innovative, cost-effective, and interoperable multivendor

products for private licensed wireless access systems for mission critical networks. Applications include smart grids supporting generation, transmission, and distribution; field area networks; electric and gas utilities; smart fields and smart pipes for oil, gas and hazardous materials transport; intelligent transportation for rail and highway systems; and federal, state and local uses for homeland security and environmental and seismic monitoring.

5.5 Need for the Project: Mission critical entities have a strong preference for private, licensed networks in VHF/UHF frequencies for their data communications needs. VHF/UHF licensed channels narrower than 1.25 MHz are readily available in the secondary markets at a lower cost than commercial wideband channels. Furthermore, VHF/UHF channels have superior propagation characteristics requiring less infrastructure and are capable of meeting capacity needs of private networks.

5.6 Stakeholders for the Standard: Stakeholders include users and customers in multiple markets, including electric and natural gas utilities, oil and gas companies, transportation including commercial and public rail, and public sector entities including federal state and local governments. Stakeholders also include spectrum license holders and equipment manufacturers with an interest in standardized products to achieve economies of scale.

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

Information from 7.3 - 7.4 is captured for potential follow up and coordination but will not appear on the final PAR view.

7.3 International Standards Activities

A. Adoptions - Is there potential for this standard to be adopted by another organization?: No

B. Harmonization - Are you aware of another organization that may be interested in portions of this document in their standardization development efforts?: Yes (WiMAX Forum)

7.4 Does the sponsor foresee a longer term need for testing and/or certification services to assure conformity to the standard?: Yes

Additionally, is it anticipated that testing methodologies will be specified in the standard to assure consistency in evaluating conformance to the criteria specified in the standard?: No

7.5 indicate if you would like IEEE-SA staff to submit your project to the American National Standards Institute (ANSI) for approval consideration as an american national standard: Yes

8.1 Additional Explanatory Notes (Item Number and Explanation):

5.4 The term "private wireless access" is used to describe wireless access systems in which the spectrum, infrastructure, and terminal devices are all privately owned by a business or entity for purposes other than offering the wireless access as a commercial product.