Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Proposal for 802.16 Revision PAR**
Date Submitted	**2007-07-09**
Source(s)	Roger B. Marks NextWave Broadband, Inc. Brian G. Kiernan InterDigital Communications Corp. Jonathan Labs Wavesat Inc.
Re:	
Abstract	This contribution proposes a PAR for the revision of IEEE Std 802.16, along with some related justification and related proposed actions.
Purpose	For consideration for forwarding to the IEEE 802 EC.
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Proposal for 802.16 Revision PAR

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Introduction

As discussed during several meetings of the IEEE 802.16 Working Group's Project Planning Committee, the need for a revision to IEEE Std 802.16 is imminent. The report of that Committee's meeting at Session #46 (IEEE 802.16-06/082) suggested that a revision PAR be drafted at Session #47. This contribution proposes such a PAR.

Administrative Need for a Revision

According to the IEEE-SA Standards Board Operations Manual <http://standards.ieee.org/guides/opman>:

**9.2 The Sponsor shall initiate revision of a standard whenever any of the material in the standard (including all amendments, corrigenda, etc.) becomes obsolete or incorrect, or if three or more amendments to a base standard exist three years after its approval or most recent reaffirmation. The Sponsor may initiate revision of a standard when new material becomes available and normal evaluation of need and feasibility indicates revision is warranted. The procedure for revising a standard is the same as for developing a new standard. A revision shall encompass the cumulative scope of the project (including all approved amendments and corrigenda).*

**8.1.2 Up to three amendments can be approved before the standard shall be revised, unless the base standard has been approved or reaffirmed within the past three years. In the latter case, multiple amendments may be added until the base standard is three years old or three years have elapsed since the most recent reaffirmation of the standard. After the three-year period, RevCom shall defer consideration of additional amendments or corrigenda until a revision or a two-year extension request is approved by the IEEE-SA Standards Board. The standard shall not be reaffirmed if three or more amendments to the base standard exist.*

IEEE Std 802.16-2004 was approved on 1 October 2004. It has since been modified by IEEE 802.16f, IEEE 802.16e, and IEEE 802.16-2004/Cor1. P802.16g/D6 is in Sponsor Ballot. P802.16h/D1 is in Working Group Letter Ballot. Six versions of a P802.16i Baseline Document have been circulated for comment. The P802.16j and P802.16m projects are in the pre-draft phase. In summary: the time to initiate a revision is now.

Proposed PAR

The proposed PAR is attached on the following pages, in the current IEEE-SA format.

Recommended Actions

We recommend that:

(1) This PAR should be submitted to the IEEE 802 EC in advance of the March 802 Plenary.

(2) The P802.16-2004/Cor2 project should be replaced by this revision project. This can be achieved through a withdrawal request to be approved at the March 802 Plenary. Until the revision project comes into existence, development of the P802.16-2004/Cor2 draft should be continued, with the development and refinement of the draft. This draft should be made available for sale by IEEE.

(3) The revision project should be assigned to the Maintenance Task Group, which can continue to develop the work as it has developed the P802.16-2004/Cor2 project.

(4) Note that Item 7.4 of our proposed PAR indicates that this Cor2 content would be introduced into the Revision draft. We recommend that, upon initiation of the revision project, a draft revision be developed as soon as possible. This should be based on the consolidation of the existing standards [following completion of the work by IEEE-SA, expected by March] subject to the changes developed in P802.16-2004/Cor2. An initial

Working Group Letter Ballot could be scheduled for completion prior to Session #48 (even if there is no time to merge the Cor2 draft into the consolidation). If additional amendments (e.g., 802.16g and 802.16i) are approved before the revision is complete, they should also be incorporated into the revision draft.

Proposed PAR to Revise IEEE Std 802.16

Type of Project: Revision to an Existing Standard 802.16-2004

1.1 Project Number: P802.16

1.2 Type of Document: Standard for

1.3 Life Cycle: Full

1.4 Is this project in ballot now? No

2.1 Title of Standard: Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Broadband Wireless Access Systems

Old Title: IEEE Standard for Local and metropolitan area networks - Part 16: Air Interface for Fixed Broadband Wireless Access Systems

3.1 Name of Working Group: Broadband Wireless Access Working Group

Contact information for Working Group Chair
Roger B Marks
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Phone: 1-303-725-4626

Contact Information for Working Group Vice Chair

Email:
Phone:

3.2 Sponsoring Society and Committee: IEEE Computer Society/Local and Metropolitan Area Networks (C/LM)
Contact information for Sponsor Chair:
Paul Nikolich
Email: p.nikolich@ieee.org
Phone: 857-205-0050
Contact information for Standards Representative:

Email:
Phone:

3.3 Joint Sponsor: IEEE Microwave Theory and Techniques Society/Standards Coordinating Committee (MTT/SCC)
Contact information for Sponsor Chair:
Richard Snyder
Email: r.snyder@ieee.org
Phone: (201) 492-1207
Contact information for Standards Representative:

Email:
Phone:

4.1 Type of Ballot: Individual

4.2 Expected Date of Submission for Initial Sponsor Ballot: 2007-11

4.3 Projected Completion Date for Submittal to RevCom: 2008-03

5.1 Approximate number of people expected to work on this project: 300

5.2 Scope of Proposed 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 multiple PHY specifications, each suited to a particular operational environment.

Old Scope: This revised standard specifies the air interface, including the medium access control layer and multiple physical layer specifications, of fixed broadband wireless access systems supporting multiple services. It consolidates IEEE Standards 802.16, 802.16a, and 802.16c, retaining all modes and major features without adding modes. Content is added or revised to improve performance, ease deployment, or replace incorrect,

	ambiguous, or incomplete material, including system profiles.

5.3 Is the completion of this standard is dependent upon the completion of another standard: No
If yes, please explain:

5.4 Purpose of Proposed Standard: This standard enables rapid worldwide deployment of innovative, cost-effective, and interoperable multivendor broadband wireless access products, facilitates competition in broadband access by providing alternatives to wireline broadband access, encourages consistent worldwide spectrum allocations, and accelerates the commercialization of broadband wireless access systems.	**Old Purpose:** This standard enables rapid worldwide deployment of innovative, cost-effective, and interoperable multivendor broadband wireless access products, facilitates competition in broadband access by providing alternatives to wireline broadband access, ecnourages consistent worldwide spectrum allocations, and accelerates the commercialization of broadband wireless access systems.

5.5 Need for the Project: Revision of the standard is required due the number of outstanding amendments and the identification, during the course of the P802.16-2004/Cor2 project, of a number of maintenance issues.

5.6 Stakeholders for the Standard: Vendors developing IEEE 802.16 products and carriers using IEEE 802.16 products.

Intellectual Property

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes
If yes, state date: 2007-01-15
If no, please explain:

6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? No
If yes, please explain:

6.1.c. Is the Sponsor aware of possible registration activity related to this project? Yes
If yes, please explain: The revision is expected to include language previously reviewed by the IEEE Registration Authority Committee regarding assignment of the IEEE 802.16 Operator ID.

7.1 Are there other standards or projects with a similar scope? No
If yes, please explain:
and answer the following: Sponsor Organization:
Project/Standard Number:
Project/Standard Date: 0000-00-00
Project/Standard Title:

7.2 Future Adoptions
Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? Yes

If Yes, the following questions must be answered:
Technical Committee Name and Number: ITU
Other Organization Contact Information:
Contact person: José M. Costa
Contact Email address: costa@nortel.com

7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No
If yes, please explain:

7.4 Additional Explanatory Notes: (Item Number and Explanation)
(5.2) The revision will consolidate IEEE Standards 802.16-2004, 802.16e-2005, 802.16-2004/Cor1-2005, and 802.16f-2006 (and possible subsequent amendments), introducing modifications as developed in the IEEE 802.16 Working Group Maintenance Process (as specified in the P802.16-2004/Cor2 draft) to replace incorrect, ambiguous, or incomplete material but without adding new functionality.

(5.2) The Scope has not been essentially changed, but unnecessary historical wording has been dropped.

8.1 Sponsor Information:
Is the scope of this project within the approved scope/definition of the Sponsor's Charter? Yes

If no, please explain:	