1. ASSIGNED PROJECT NUMBER: 802.16e

2. SPONSOR DATE OF REQUEST: 2004-06-29

3. TYPE OF DOCUMENT: Standard

4. TITLE OF DOCUMENT: Amendment to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems - Amendment for Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands

5. LIFE CYCLE: Full-Use

6. TYPE OF PROJECT: Amendment IEEE 802.16-2004

Modified PAR? Yes , PAR No.: 802.16e - Approval Date: 2002-12-11
In Ballot? No

7. WORKING GROUP INFORMATION

Name of Working Group: IEEE 802.16 Working Group on Broadband Wireless Access
Approximate Number of Expected Working Group Members: ~~100~~200

8. CONTACT INFO FOR WORKING GROUP CHAIR

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10. CONTACT INFO OF SPONSOR

Sponsor: C/LM
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11. TYPE OF SPONSOR BALLOT: Individual

Expected Date of Submission for Initial Sponsor Ballot: 2004-10-01

12. PROJECTED COMPLETION DATE FOR SUBMITTAL TO REVCOM: 2004-12-31 (PAR Expires in December 2006)

13. SCOPE: This document provides enhancements to IEEE Std 802.16-2004 to support subscriber stations moving at vehicular speeds and thereby specifies a system for combined fixed and mobile broadband wireless access. Functions to support higher layer handoff between base stations or sectors are specified. Operation is limited to licensed bands suitable for ~~mobility~~ fixed/mobile use below ~~11~~ 6 GHz. Fixed 802.16-2004 subscriber capabilities shall not be compromised (See Item #19).

Completion of this document contingent? No

14. PURPOSE: This amendment enhances IEEE Standard 802.16-2004 by providing additional specifications required to support mobile as well as fixed terminals.

14a. Reason: This standard will increase the market for broadband wireless access solutions by taking advantage of the inherent mobility of wireless media. It will fill the gap between very high data rate wireless local area networks and very high mobility cellular systems. It will support fixed and mobile services for both enterprise and consumer markets.

15. INTELLECTUAL PROPERTY:

Patent Policy: Yes
Copyrights: No
Trademarks: No
Registration of Object: No

16. SIMILAR SCOPE: Yes

Explanation: ITU-R Working Party 8F, in conjunction with 3GPP and 3GPP2, is developing air interfaces for IMT-2000 and systems beyond IMT-2000 for both mobile and fixed applications. The IEEE P802.20 project targets systems optimized for high mobility and IP transport.
Sponsor: ITU-R
Project Number: ITU-R 8F; IEEE 802.20
Project Date: 1990-01-01
Project Title: ITU-T 8F: IMT-2000 and systems beyond IMT-2000 IEEE 802.20: Mobile Broadband Wireless Access

17. FUTURE ADOPTION - INTERNATIONAL SPONSOR: Yes

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18. FOCUS ON HEALTH, SAFETY OR ENVIRONMENTAL ISSUES:

Explanation: No.

19. ADDITIONAL NOTES: Item #6 - This PAR is being modified in the following ways: (a) In Item #6, the year of base standard was updated due to approval of the 2004 revision; (b) the target dates in Items #11 & 12 were updated to reflect the revised schedule; (c) Item #14 and #14a are non-substantive edits required by changes to the PAR form; (d) Item #16 eliminated references to distantly-related standards and added a reference to the P802.20 project that has since been established. In addition, the following changes were made to the Scope:

•replacement of obsolete references to the base standard

•removal of the 2 GHz lower limit; this change was made to reflect the removal of this limit during the revision of the base standard

•changed the restriction “suitable for mobility” to “suitable for fixed/mobile use” to clarify the distinction with respect to fully mobile standards

The following changes were made to the Additional Notes regarding Item #13:

•replacement of obsolete references to the base standard

•expanded the description of interoperability and introduced the possibility of additional FFT sizes; this change was made to allow for improved operation given the range of channel bandwidths available in worldwide allocations while continuing to a provide backward-compatible mobile upgrade path to all systems conforming to IEEE Standard 802.16-2004

Item #13 - Subscriber stations and base stations specified herein shall be interoperable with existing physical layer specifications in IEEE Std 802.16-2004 except when using one of their extensions with scaled down FFT sizes (1024, 512, 128). For OFDM (256 FFT)/OFDMA (2048 FFT) implementations as specified in IEEE Std 802.16-2004, there shall be no changes or additions to the mandatory features and backward compatibility shall be maintained. Because the standard will utilize the 802.16-2004 medium

access control layer, it will support multimedia services requiring differentiated Quality of Service, and it will support adaptive physical link control so that subscriber stations can receive higher-rate service when they move more slowly, include more effective antennas, or are otherwise in better link conditions.

I acknowledge having read and understood the IEEE Code of Ethics I agree to conduct myself in a manner which adheres to the IEEE Code of Ethics when engaged in official IEEE business.

The PAR Copyright Release and Signature Page must be submitted either by FAX to 208-460-5300 or as e-mail attachment in .pdf format to the NesCom Administrator before this PAR will be sent on for NesCom and Standards Board approval.