DRAFT

1. ASSIGNED PROJECT NUMBER: 802.16i

2. SPONSOR DATE OF REQUEST: 14-Oct-2005

3. TYPE OF DOCUMENT: Standard

4. TITLE OF DOCUMENT: Amendment to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Broadband Wireless Access Systems - Mobile Management Information Base

5. LIFE CYCLE: Full-Use

6. TYPE OF PROJECT: Amendment 802.16-2004

Modified PAR?
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: 300

8. CONTACT INFO FOR WORKING GROUP CHAIR

Name of Working Group Chair: Roger Marks
Telephone: 303-497-3037
FAX:
E-mail: r.b.marks@ieee.org

9. CONTACT INFO OF CO-CHAIR/OFFICIAL REPORTER

Name of Co-Chair/Official Reporter:
Telephone:
FAX:
E-mail:

10. CONTACT INFO OF SPONSOR

Sponsor: C/LM
Name of Sponsor Chair: Paul Nikolich
Telephone: +1 857 205 0050
FAX: +1 781 334 2255
E-mail: p.nikolich@ieee.org

CO-SPONSOR INFORMATION (THIS IS BEING SPONSORED BY TWO SPONSORS):
Cosponsor: MTT/SCC
Name of Cosponsor Chair: Jeffrey Jargon
Telephone: +1-303-497-3596
FAX:
E-mail: jargon@boulder.nist.gov

11. TYPE OF SPONSOR BALLOT: Individual

Expected Date of Submission for Initial Sponsor Ballot: Aug-2006

12. PROJECTED COMPLETION DATE FOR SUBMITTAL TO REVCOM: Dec-2006

13. SCOPE: This document provides mobility enhancements to IEEE Std 802.16 MIB for the MAC, PHY and associated management procedures. The project will use protocol-neutral methodologies for network management to develop resource models and related solution sets for the management of devices in a multi-vendor 802.16 mobile network.

Completion of this document contingent upon another document? Yes
IEEE 802.16f, IEEE 802.16Cor1 and IEEE 802.16e, all of which have been submitted for final approval by RevCom

14. PURPOSE: The purpose of this project is to provide a definition of managed objects to enable the standards-based management of 802.16 devices.

15. REASON: The reason for this project is to facilitate cross-vendor interoperability at the network level for the management of 802.16e devices and networks. This will provide network operators with the ability to manage multivendor networks including 802.16e devices. This project extends upon the work of IEEE 802.16f in adding MIB support for new features and functions added in IEEE 802.16e.

16. INTELLECTUAL PROPERTY:

IEEE-SA Policy on Intellectual Property Presented: Yes 12-Sep-2005
Copyrights: No
Trademarks: No
Registration of Object: No

17. SIMILAR SCOPE: No

18. FUTURE ADOPTION: Yes

Int'l Organization: ITU
Int'l Contact Person: Jose M. Costa
Telephone: 613-763-7574
FAX: 613-765-1225
E-mail: costa@nortel.com

19. Health, Safety or Environmental Issues: No

Explanation:

20. SPONSOR INFORMATION:

a. Is the scope of this project within the approved scope/definition of the Sponsor's Charter? Yes
Explanation:
b. Sponsor's procedures accepted by AudCom: Yes

21. ADDITIONAL NOTES:

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.

802.16i Five Criteria

CRITERIA FOR STANDARDS DEVELOPMENT (FIVE CRITERIA)

Broad Market Potential
A standards project authorized by IEEE 802 shall have a broad market potential. Specifically, it shall have the potential for:

a) Broad sets of applicability.
b) Multiple vendors and numerous users.
c) Balanced costs (LAN versus attached stations).

a) IEEE 802 systems require consistent management features. The MIB related mechanisms are applicable to all IEEE 802 systems including 802.16.

b) Multiple vendors, from all around the world have participated in the study group process that developed this PAR and 5 Criteria

c) A MIB mechanism is a common feature of 802 systems and has been shown not to adversely affect the cost of such systems.

Compatibility
IEEE 802 defines a family of standards. All standards shall be in conformance with the IEEE 802.1 Architecture, Management and Interworking documents as follows: 802. Overview and Architecture, 802.1D, 802.1Q and parts of 802.1f. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with 802.
Each standard in the IEEE 802 family of standards shall include a definition of managed objects which are compatible with systems management standards.

1. **The proposed project will be developed in conformance with the 802 Overview and Architecture.**
2. **The proposed project will be developed in conformance with 802.1D, 802.1Q, 802.1f.**
3. **Managed objects will be defined consistent with existing policies and practices for 802.1 standards.**

Consideration will be made to ensure compatibility with the 802 architectural model including at least 802, 802.2, 802.1D, 802.1f and 802.1Q.

This amendment is specifically intended to address the requirement for managed object consistent with existing policies and practices for 802.1 standards.

Distinct Identity
Each IEEE 802 standard shall have a distinct identity. To achieve this, each authorized

project shall be:
a) Substantially different from other IEEE 802 standards.
b) One unique solution per problem (not two solutions to a problem).
c) Easy for the document reader to select the relevant specification.

a) This standard will add mobility support to the previous 802.16f fixed MIB standard.
b) The proposal for the standard is to develop a single MIB.
c) It will be obvious from the title and content of the standard that it is a standard defining mobility additions to the MIB for 802.16.

Technical Feasibility
For a project to be authorized, it shall be able to show its technical feasibility. At a minimum, the proposed project shall show:

a) Demonstrated system feasibility.
b) Proven technology, reasonable testing.
c) Confidence in reliability
    a) **MIBs are integral parts of most 802 systems. Thus they are demonstrably feasible.**
    b) **MIBs are already a proven and testable management mechanism, as shown through widespread deployment in millions of systems.**
    c) **There is no reason to consider MIBs to be unreliable.**

d) Working Group will not create a CA document because no physical layer specifications are included.

Economic Feasibility
For a project to be authorized, it shall be able to show economic feasibility (so far as can reasonably be estimated), for its intended applications. At a minimum, the proposed project shall show:
a) Known cost factors, reliable data.
b) Reasonable cost for performance.
c) Consideration of installation costs.

a) **MIB implementations are widely and cost effectively deployed today.**
b) **The performance of MIBs are related to the performance of the underlying network technology. 802.16 is capable in this respect.**
c) **MIBs will generally be included directly in products and will not demand costly installation methods. In addition, MIBs may serve to reduce installation costs of 802.16 systems.**