IEEE-SA Standards Board Project Authorization Request (PAR) Form

<table>
<thead>
<tr>
<th>1. Sponsor Date of Request</th>
<th>2. Assigned Project Number</th>
<th>3. PAR Approval Date</th>
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<tbody>
<tr>
<td>16 Feb 2000</td>
<td>802.16.3</td>
<td>30 March 2000</td>
</tr>
</tbody>
</table>

{Copyright release must be submitted with appropriate signatures by postal mail or FAX (+1-732-562-1571)}

[x] PAR Signature Page on File

4. Project Title, Recorder and Working Group/Sponsor for this Project

Document type and title:

- [x] Standard for (document stressing the verb "shall")
- [ ] Recommended Practice for (document stressing the verb "should")
- [ ] Guide for (document in which good practices are suggested)

**Title:** Telecommunications and Information Exchange Between Systems - LAN/MAN

**Specific Requirements - Air Interface for Fixed Broadband Wireless Access Systems in Licensed Bands from 2 to 11 GHz**

<table>
<thead>
<tr>
<th>Name of Working Group (WG):</th>
<th>IEEE 802.16 Working Group on Broadband Wireless Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Official Reporter (usually the WG Chair) who must be an SA member as well as an IEEE/Affiliate Member.</td>
<td>Roger B. Marks</td>
</tr>
<tr>
<td>Title in WG:</td>
<td>Chair</td>
</tr>
<tr>
<td>Company:</td>
<td>National Institute of Standards and Technology</td>
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<td>Telephone:</td>
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<td>FAX:</td>
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<td>City/State/Zip:</td>
<td>Boulder, CO 80303</td>
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<tr>
<td>Email:</td>
<td><a href="mailto:r.b.marks@ieee.org">r.b.marks@ieee.org</a></td>
</tr>
</tbody>
</table>

| Name of Sponsoring Society and Committee: | Computer Society, LAN/MAN Standards Committee; Microwave Theory and Techniques Society |
| Name of Committee Sponsor Chair: | Jim Carlo, LAN/MAN Standards Committee |

| Company: | Texas Instruments |
| Telephone: | - |
| Address: | 9208 Heatherdale Drive |
| FAX: | +1-214-853-5274 |
| City/State/Zip: | Dallas, TX 75243-6332 |
| Email: | jcarlo@ti.com |
5. Describe This Project; Answer each of four questions below:

a. Update an existing PAR No
   - [ ] If YES, indicate PAR Number/Approval Date
   - [ ] If YES, attach a cover letter indicating changes/rationale for changes.
   - [ ] If YES, is this project in ballot now?
b. Choose one from the following:
   - [x] New Standard
   - [ ] Revision of existing standard {number and year}
   - [ ] Amendment (Supplement) to an existing standard {number and year}
   - [ ] Corrigenda to an existing standard {number and year}
c. Choose one from the following:
   - [x] Full Use (5-year life cycle)
   - [ ] Trial Use (2-year life cycle)
d. Choose one from the following:
   - [x] Individual Sponsor Balloting
   - [ ] Entity Sponsor Balloting
e. Fill in Target Completion Date to IEEE RevCom: 2002 Mar 31

6. Scope of Proposed Project:

This standard specifies the physical layer and media access control layer of the air interface of interoperable fixed point-to-multipoint broadband wireless access systems (e.g., those supporting data rates of DS1/E1 or greater). The specification enables access to data, video, and voice services with a specified quality of service in licensed bands designated for public network access. It applies to systems operating between 2 and 11 GHz.

7. Purpose of Proposed Project:

To enable rapid worldwide deployment of innovative, cost-effective and interoperable multi-vendor broadband wireless access products. To facilitate competition in broadband access by providing wireless alternatives to wireline broadband access. To facilitate coexistence studies, encourage consistent worldwide allocation, and accelerate the commercialization of broadband wireless access spectrum. Utilization of frequencies from 2 to 11 GHz will address a market that includes residences, Small Office-Home Office (SOHO), telecommuters and Small and Medium Enterprises (SME).

8. Intellectual Property

a. Are you aware of any patents relevant to this project?
   - [No] {Yes, with detailed explanation below / No}
b. Are you aware of any copyrights relevant to this project?
   - [No]
c. Are you aware of any trademarks relevant to this project?
   - [No]
d. Are you aware of any registration of objects or numbers relevant to this project?
   - [No]

9. Are you aware of any other standards or projects with a similar scope?

[Yes] {Yes, with detailed explanation below / No}

- T1P1.4 is currently developing air interface standards for Fixed Wireless Access to the PSTN Network. The primary focus of the group is wireless access to POTS, ISDN and Fractional T1/E1 services
delivered via the public circuit switched telephone network, although their charter does include packet data services. The individual user data rates currently contemplated by this group range from 8 Kb/s to 2 Mb/s.

- The ETSI HIPERACCESS Project is currently focusing on frequencies around 40 GHz but may evolve to frequencies below 11 GHz.
- IEEE 802.11 and 802.15 address primarily short range WLAN and WPAN applications, respectively. The 802.16.3 standard is specifically directed towards longer-range wireless point to multipoint MAN/WAN systems that provide access to core public networks. These systems typically serve large numbers of dispersed subscribers.
- ITU-R Working Party 8F is developing air interfaces for IMT-2000 and access systems beyond IMT-2000 for both mobile and fixed applications.

10. International Harmonization

Is this standard planned for adoption by another international organization?
[Yes]
If Yes: Which International Organization [ITU-R]
If Yes: Include coordination in question 13 below

11. Is this project intended to focus on health, safety or environmental issues?
[No]

12. Proposed Coordination/Recommended Method of Coordination

Mandatory Coordination:
- SCC 10 (IEEE Dictionary) by DR {Circulation of DRafts}
- IEEE Staff Editorial Review by DR
- SCC 14 (Quantities, Units and Letter symbols) by DR

Coordination requested by Sponsor:
- [ITU-R, including Joint Working Group 8A/9B] by [LI] {Circulation of DRafts/Liaison memb/COmmom memb}
- [T1P1.4] by [CO] {Circulation of DRafts/Liaison memb/COmmom memb}
- [ETSI BRAN] by [LI] {Circulation of DRafts/Liaison memb/COmmom memb}
- [SCC-34] by [DR] {Circulation of DRafts/Liaison memb/COmmom memb}

Coordination requested by Others:
{added by staff}

13. Additional Explanation Notes: {Item Number and Explanation}

As required by the LAN/MAN Standards Committee, documentation of how of the project will address the Five Criteria for Standards Development is available.