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<th>Project</th>
<th>IEEE 802.16 Broadband Wireless Access Working Group</th>
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<td>Title</td>
<td>Call for Contributions for Modifications of 802.16 MAC and 802.11a-HIPERLAN/2 PHY for the WirelessHUMAN™ Standard</td>
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<td>Date Submitted</td>
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[http://ieee802.org/16/human/docs/80216h-00_13r3.pdf] |
| Abstract | Call for Contributions for Proposed Modification of Specified MAC/PHY standards for WirelessHUMAN™ systems |
| Purpose | To encourage proposals initiating the WirelessHUMAN™ standardization effort |
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Call for Contributions for Modifications of 802.16 MAC and 802.11a-HIPERLAN/2 PHY for the WirelessHUMAN™ Standard

Deadline: 13 January 2001

On 9 November 2000, the IEEE 802 LAN/MAN Standards Committee accepted a proposal by the IEEE 802.16 Working Group on Broadband Wireless Access to initiate a new standards project entitled “Air Interface for Fixed Broadband Wireless Access Systems including License-Exempt Frequencies.” Final approval for this project is on the agenda of the IEEE-SA Standards Board on 7 December 2000.

The project proposal, which addresses a standard for public metropolitan area networks in the unlicensed (i.e., license-exempt) bands, was drafted by 802.16’s WirelessHUMAN™ (Wireless High-speed Unlicensed Metropolitan Area Networks) Study Group. The WirelessHUMAN™ Study Group operated from through 9 March through 10 November 2000. It has been replaced by a new 802.16 Task Group 4 (the 802.16 WirelessHUMAN™ Task Group).

The WirelessHUMAN™ Project Authorization Request (PAR) specifies a primary focus on 5-6 GHz. The PAR further specifies that the WirelessHUMAN™ Standard will consist of modifications of the following standards:

1. IEEE 802.16 MAC
2. IEEE 802.11a PHY and HIPERLAN/2 PHY

The WirelessHUMAN™ Task Group seeks specific contributions addressing details of such modifications and addressing the following key issues:

a) Potential modifications to 802.11a PHY / HIPERLAN/2 PHY:
   - Operation in presence of interference in MAN environments
   - Modifications to 802.11a channel plan
   - Accommodate increased propagation delay and multipath
   - Dynamic Frequency Selection
   - Adaptive Power Control
   - Cellular deployment with sectorization and frequency reuse
   - Improved Error Control
   - PAPR (Peak to Average Power Ratio) reduction mechanisms

b) Input on channel models specific to 5-6 GHz bands

c) Potential modifications to 802.16 MAC:
   - Coexistence strategies and techniques to mitigate interference in the unlicensed bands
   - QoS availability in unlicensed environments
   - Are the recommendations of 802.16’s Task Group 3 to modify the 802.16.1 MAC applicable to WirelessHUMAN™ systems?

d) Input on mutually acceptable co-existence strategies for 802 wireless systems

e) Input on criteria for evaluation of candidate proposals

Contributions must be submitted using the current version (Rev. 8.2) of the 802.16 Document Submission Template <http://www.ieee802.org/16/docs/802_16_template.doc>. Contributions will be considered non-
confidential and will be posted as soon as possible after receipt for public access on the 802.16 web site. Contributions submitted by the deadline will be addressed at 802.16 Session #11 (22-26 January 2001 in Ottawa, Canada).

Email your contribution to each of the following:

- IEEE 802.16 Task Group 4 Chair Durga P. Satapathy <mailto:durga.satapathy@mail.sprint.com>
- IEEE 802.16 Task Group 4 Secretary (Ken Peirce) <mailto:ken@malibunetworks.com>
- IEEE 802.16 Chair Roger Marks <mailto:marks@nist.gov>