

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Call for Contributions: Functional Requirements for WirelessHUMAN™ systems	
Date Submitted	2000-07-03	
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Re:	Proposal for the WirelessHUMAN™ study group http://ieee802.org/16/human/docs/80216hp-00_01.pdf	
Abstract	At the March IEEE 802 Plenary Meeting, the WirelessHUMAN™ study group was created to investigate the feasibility of public MAN access in the unlicensed 5-6 GHz bands, and to evaluate differences and synergies with the IEEE 802.11 and 802.15 group efforts. The May IEEE 802.16 Session #7 developed requirements for WirelessHUMAN™ systems. This call for contributions seeks input for the assimilation of report from this study group on the feasibility of using existing and ongoing standardization efforts for WirelessHUMAN™ systems.	
Purpose	To create a report on MAC/PHY layer design issues/requirements for a WirelessHUMAN™ system in the 5-6 GHz bands.	
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Call for Contributions

Functional Requirements for **WirelessHUMAN™** systems

Durga P. Satapathy

Chair, IEEE 802.16 WirelessHUMAN™ Study Group

The WirelessHUMAN™ (Wireless High-speed Unlicensed Metropolitan Area Networks) study group seeks to determine the functional requirements for public MAN operation in the 5-6 GHz unlicensed bands, with primary focus on the 5.25-5.35 GHz and the 5.725-5.825 GHz UNII bands. The WirelessHUMAN™ group recognizes the significant achievements of the IEEE 802.11 and IEEE 802.15 members in addressing unlicensed operation for wireless LAN and wireless PAN systems respectively. At the last 802.16 session, this study group identified the unique system design issues/requirements of WirelessHUMAN™ systems from a MAC/PHY layer perspective. The group has planned to create a study group report to describe the potential for using existing and ongoing standardization efforts for a standard for WirelessHUMAN™ systems. This document provides a draft outline of that report, and seeks input for creation of the report.

WirelessHUMAN™ Study Group Report

1. Introduction to WirelessHUMAN™ systems: What is the market need for WirelessHUMAN™ systems? What is the current state of the unlicensed industry? What are the existing regulations in the various unlicensed bands?
2. Performance in Unlicensed Environments: What mechanisms for interference avoidance/suppression, resource sharing, and ensuring adequate performance exist in unlicensed bands? Are existing FCC regulations sufficient for providing the QoS required of WirelessHUMAN™ systems, or are additional rules/regulations or modification of existing rules for unlicensed operation necessary?
3. WirelessHUMAN™ System Requirements: What are the unique system design issues/requirements of WirelessHUMAN™ systems from a MAC/PHY layer perspective?
4. Applicability of 802.16.1 MAC/PHY elements, design issues and approach
5. Applicability of 802.16.3 MAC/PHY elements, design issues and approach
6. Applicability of 802.11 MAC/PHY elements, design issues and approach
7. Applicability of 802.15 MAC/PHY elements, design issues and approach
8. Conclusion

Contributions are requested on the issues identified above to create this report from the WirelessHUMAN™ study group. These contributions will serve to facilitate discussion and creation of a draft report at the upcoming 802.16 Session #8 meeting. Contributions should be submitted using Revision 8 of the 802.16 Document Submission Template <http://www.ieee802.org/16/docs/802_16_template.doc>. Contributions will be considered non-proprietary and will be posted as soon as possible after receipt for public access on the 802.16 web site. Contributions submitted before July 8 will be addressed at the meeting, and subsequent contributions will be addressed by conference calls/email discussions.

Email your contribution to each of the following:

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