Call for Contributions:

*Small-Cell Backhaul (SCB) Enhancements to WirelessMAN-OFDMA*

HetNet Study Group

# Issued: 20 July 2012

# Deadline: 12 September 2012 AOE

On 16 March 2012, the IEEE 802 Executive Committee chartered the Study Group on the WirelessMAN Radio Interface in Heterogeneous Networks ([HetNet Study Group](http://ieee802.org/16/sg/het)), under the IEEE 802.16 Working Group, through 20 July 2012. The SG met during the IEEE 802.16 Working Group’s Session #79 in May 2012 and again during Session #80 in July 2012. The SG’s documents are available at <<http://docii-het.wirelessman.org>>.

On 20 July 2012, the SG was renewed through 16 November 2012. It will meet again during IEEE 802.16 [Session #81](http://ieee802.org/16/meetings/mtg81) (17-20 September 2012 in Indian Wells, CA, USA) and [Session #82](http://ieee802.org/16/meetings/mtg82) (12-15 November 2012 in San Antonio, TX USA).

During Session #80, the SG reviewed input contributions regarding small-cell backhaul enhancements to WirelessMAN-OFDMA. Following review of those contributions, the SG hereby issues this Call for Contributions soliciting input documentation to progress the development of a Project Authorization Request (PAR) and Five Criteria Statement on *Small-Cell Backhaul (SCB) Enhancements to WirelessMAN-OFDMA*.

Such contributions will be addressed at Session #81, where the SG intends to develop the PAR and Five Criteria with the intent of presenting them for IEEE 802 approval in conjunction with Session #82.

Comments are also solicited on the following draft text for key elements of the PAR, taken from Document 802.16-12-0452-00-Shet:

**Type of Project:** Amendment to IEEE Standard 802.16-2012

**2.1 Title:** Air Interface for Broadband Wireless Access Systems: Amendment for Small Cell Backhaul (SCB) Applications

**5.2.b. Scope of the project:** This project will develop and amendment specifying enhancements to the WirelessMAN-OFDMA air interface for effective use in small cell backhaul applications. It will focus on bands below 11 GHz, particularly below 6 GHz. It will add 256QAM, 512QAM, and 1024 QAM options in both uplink and downlink, with 4x4 MIMO in both directions. Significantly latency improvements will be attained. The solution will be tailored to use in fixed deployment using the Ethernet Convergence Sublayer.

**5.5 Need for the Project:** As the spectral efficiency of wireless links approaches its theoretical limits, and with the data traffic requirements continuing to grow rapidly, cell density and cooperation among base stations must increase in order to further improve network capacity and efficiently manage radio resources. Multi-tier access network architecture consisting of macrocells and a variety of overlaid smaller cells provides an approach towards solving the problem, allowing low cost per bit and efficiently utilizing all spectral resources in the system. The current IEEE Std 802.16 and the amendments under development do not address the requirements for radio resource management based on cooperation among base stations in a multi-tier access network architecture. This project will address these needs, enabling cost-effective improvements in system capacity and user quality of service with interoperable and efficient management of network resources, mobility, and spectrum.

Submit your contribution by the deadline abovefollowing the IEEE 802.16 Document Submission Instructions <http://ieee802.org/16/submit.html> using the File Code “Shet”.

For further information, contact the following:

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