Project	**IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>**
Title	**Support for Self-organization**
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Re:	TGm SDD: SON; in response to the TGm Call for Contributions and Comments 802.16m-08/040 for Session 58
Abstract	This contribution proposes a text to be added for the support for Femtocell in the IEEE 802.16m SDD. The text indicates that SON mechanism should include Self-Configuration and Self-optimization.
Purpose	To be discussed and adopted by TGm for use in the IEEE 802.16m SDD
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Support for Self-organization

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Introduction

The IEEE 802.16m-07_002r6 SRD requires support for Femtocells. This contribution proposes a text to be added for the support for Femtocell in the IEEE 802.16m SDD. The text indicates that SON mechanism should include Self-Configuration and Self-optimization.

Proposed Text

Insert the following text under section 18 on Support for Self-organization in the IEEE 802.16m SDD:

IEEE 802.16m should support self organizing mechanism including Self-configuration and Self-optimization.

18.x Self- configuration

Self-configuration means allowing real plug and play installation of network nodes and cells, i.e. self-adaptation of the initial configuration including the update of neighbor nodes and neighbor cells. A BS can scan the surrounding neighboring cells to find unused radio resources and negotiate with them about the usage of unused resources. Interference management can be done by scheduling resource units coordinately between interfering cells in such a way of initial semi-static restrictions for MSs close to cell borders. In the case of Femtocell, the measurement and carrier frequency selection may be included in Self-configuration.
Self-configuration also includes means for fast reconfiguration and compensation in failure cases. Parameters for handover can be reconfigured when a MS detects radio link degradation and report failure of radio link with location information.

18.y Self-optimization

Self-optimization means allowing automated or autonomous optimization of network performance with respect to service availability, QoS, network efficiency and throughput. Network performance such as throughput can be optimized via a MS detecting and reporting of very low throughput situation with location information. Interference management can be done by scheduling resource units coordinately between interfering cells in such a way of high speed coordination based on load in different cells. In the case of femtocell, the measurement and DL/UL Tx Power Setting may be included in Self-optimization.