Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>	
Title	**Comments on MR-BS and RSs behavior during association procedure**	
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Source(s)	Kanchei (Ken) Loa, Yi-Hsueh Tsai, Yung-Ting Lee, Hua-Chiang Yin, Shiann-Tsong Sheu, Youn-Tai Lee Institute for Information Industry 7F, No. 133, Sec. 4, Minsheng E. Rd., Taipei City 105, Taiwan	Voice: +886-2-66000100 Fax: +886-2-66061007 loa@iii.org.tw
Re:	IEEE 802.16-08/007: "IEEE 802.16 Working Group Letter Ballot Recirc #28b: Announcement"	
Abstract	This contribution proposes modification on association procedure	
Purpose	Text proposal for 802.16j Draft Document.	
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Comments on MR-BS and RSs behavior during association procedure

Kanchei (Ken) Loa, Yi-Hsueh Tsai, Yung-Ting Lee, Hua-Chiang Yin, Shiann-Tsong Sheu, Youn-Tai Lee

Institute for Information Industry (III)

Introduction

In current standard, the MR-BS and RSs behavior during association procedure only apply to non-transparent RS with unique BSID. For the transparent RS and non-transparent RS has shared BSID, they only need to perform the same tasks as contention-based initial ranging described in 6.3.10.3.1.1. In addition, the MR_Code-REP message is more efficient than RNG-RSP message to report ranging code attributes and adjustments information. So we propose to replace RNG-RSP message by MR_Code-REP message such that both transparent and non-transparent RS utilize the same message in the association procedure.

In order to facilitate the incorporation of this proposal into IEEE 802.16j standard, specific changes to the draft standard P802.16j/D3 are listed below.

Spec changes

6.3.22.1.3.4 MR-BS and RSs behavior during association procedure

[Modified the following text in line xxx of page xxx]

In a MR system ~~under~~ with the non-transparent RS with unique BSID operating in centralized scheduling mode, when the serving MR-BS decides to recommend that the MS to scan neighbor stations with association level 2, the MR-BS shall notify the neighbor stations the association parameters (i.e., Rendezvous time, unique CDMA code, Transmission opportunity offset, UL CINR) after sending the MOB_SCN-RSP message.

— If the neighbor station is the serving MR-BS itself, it has already owned the association parameters.

— If the neighbor station is a RS inside the MR-cell the MS attached to, the serving MR-BS shall notify the neighbor station via a MR_ASC-RSP message.

— If the neighbor station is outside the MR-cell the MS attached to, the serving MR-BS shall notify the neighbor MR-BS via the network backbone. If the neighbor station is a RS, the neighbor MR-BS shall then notify the neighbor station via a MR_ASC-RSP message.

In a MR system with non-transparent RSs operating in distributed scheduling mode, when the serving MR-BS decides to recommend that the MS scan neighbor stations with association level 1 or 2, it should obtain association parameters available from the neighbor stations before sending the MOB_SCN-RSP message.

— If a neighbor station is in different MR-cells from the MS, the MS's serving MR-BS shall forward a message via the network backbone to the neighbor station's serving MR-BS requesting the neighbor station's association parameters.

— If the neighbor station is an MR-BS, the association parameters are readily available. However, if the neighbor station is an RS, its serving MR-BS must forward an MR_ASC-REQ message to the RS requesting that it forward its association parameters via an MR_ASC-RSP message.

— If a neighbor station is an RS in the same cell as the MS, the serving MR-BS shall request the association parameters directly from the RSs via an MR_ASC-REQ message.

— When an RS receives an MR_ASC-REQ message from its serving MR-BS, it shall respond with an association response (MR_ASC-RSP) message to indicate the association level allocated to the MS. If the allocated association level is 1 or 2, the MR_ASC-RSP should include the association parameters (i.e. Rendezvous time, CDMA code, and Transmission opportunity offset).

— Upon receiving these association parameters, the serving MR-BS shall determine whether the association parameters satisfy the MS' association requirements or not. If they do, the serving MR-BS shall include those association parameters in the MOB_SCN-RSP message.

For MS neighbor scanning with association level 0 and 1, the access station shall perform the same tasks as contention-based initial ranging described in 6.3.10.3.1.1.

For MS neighbor scanning with association level 2, the transparent RS and non-transparent RS has shared BSID shall perform the same tasks as contention-based initial ranging described in 6.3.10.3.1.1.

Instead of sending a RNG-RSP message to the MS, the neighbor non-transparent RS with unique BSID shall send a RNG-RSP message to the MR-BS containing corresponding ranging information to the MR-BS.