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| Project | **IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>** | |
| Title | **Comments on MS Initial Ranging with Non-transparent RS (Centralized)** | |
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| Re: | IEEE 802.16j-07/019: "Call for Technical Comments Regarding IEEE Project 802.16j" | |
| Abstract | This contribution proposes modifications for MS Initial Ranging with Non-transparent RS | |
| Purpose | Text proposal for 802.16j Baseline Document. | |
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# Comments on MS Initial Ranging with Non-transparent RS

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## Introduction

In in section 6.3.9.16.2.1 of baseline working document IEEE 802.16j-07/026r4, "*Once a RS receives the CDMA code resulting in success status, it transmits a RNG-REQ with the RS basic CID to the MR-BS, containing ranging status and ranging code attributes. In addition, the value of MS ranging indicator of the RNG-REQ is set to 1. The RNG-REQ may also contain adjustment information, such as frequency, timing and power if necessary. When the RS successfully receives multiple codes in a frame, the RS sends a RNG-REQ message which contains information of multiple received codes. When the MR-BS receives the RNG-REQ with success status, it sends a RS UL-MAP to the RS including a CDMA_Allocation-IE as well as a RNG-RSP containing success status with the value of MS ranging indicator equal to 1.*"

The major purpose that RS transmits a RNG-REQ to the MR-BS after receiving the CDMA code resulting that requires no corrections is to request MR-BS to generate the CDMA_Allocation IE() for MS. Therefore, in order to simply the procedure for MS initial ranging with non-transparent RS, RS shall locally send a RNG_RSP message to the MS on the access link. In addition, in P802.16-2004 Cor2/D4 (P80216Rev2_D0b), sending the RNG-RSP message with status "Success" is optional. Thus, this contribution provides modification, consistent with P802.16-2004 Cor2/D4 (P80216Rev2_D0b), on MS initial ranging with non-transparent RS in section 6.3.9.16.2.1 of baseline working document IEEE 802.16j-07/026r4.

In order to facilitate the incorporation of this proposal into IEEE 802.16j standard, specific changes to the baseline working document IEEE 802.16j-06/026r4 are listed below.

## Text Proposal

6.3.9.16.2 MS network entry procedures in non-transparent RS systems

6.3.9.16.2.1 Non-transparent RS with Centralized scheduling

*[Change the following text in line 52 of page 82 as indicated]*

When an RS receives a CDMA code ~~that results in continue status~~, the RS shall locally send a RNG_RSP message to the MS on the access link. Sending the RNG-RSP message with status "Success" is optional. In order to send the RNG_RSP to the MS, it sends an RS BR header to the MR-BS.

*[Change the following text in line 3 of page 83 as indicated]*

When the MR-BS receives the RNG-REQ ~~with success status~~ that requires no corrections, it sends a RS UL-MAP to the RS including a CDMA_Allocation-IE ~~as well as a RNG-RSP containing success status with the value of MS ranging indicator equal to 1~~.

*[Change the following text in line 15 of page 83 as indicated]*

~~After receiving the RNG-RSP, which the value of MS ranging indicator is equal to 1, the RS sets the value of MS ranging indicator to zero and then relays the message with the initial ranging CID.~~

*[Change the following Table 199b in page 84 as indicated]*

Table 199b—Ranging and automatic adjustments procedure in MR mode