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 (Centralized)

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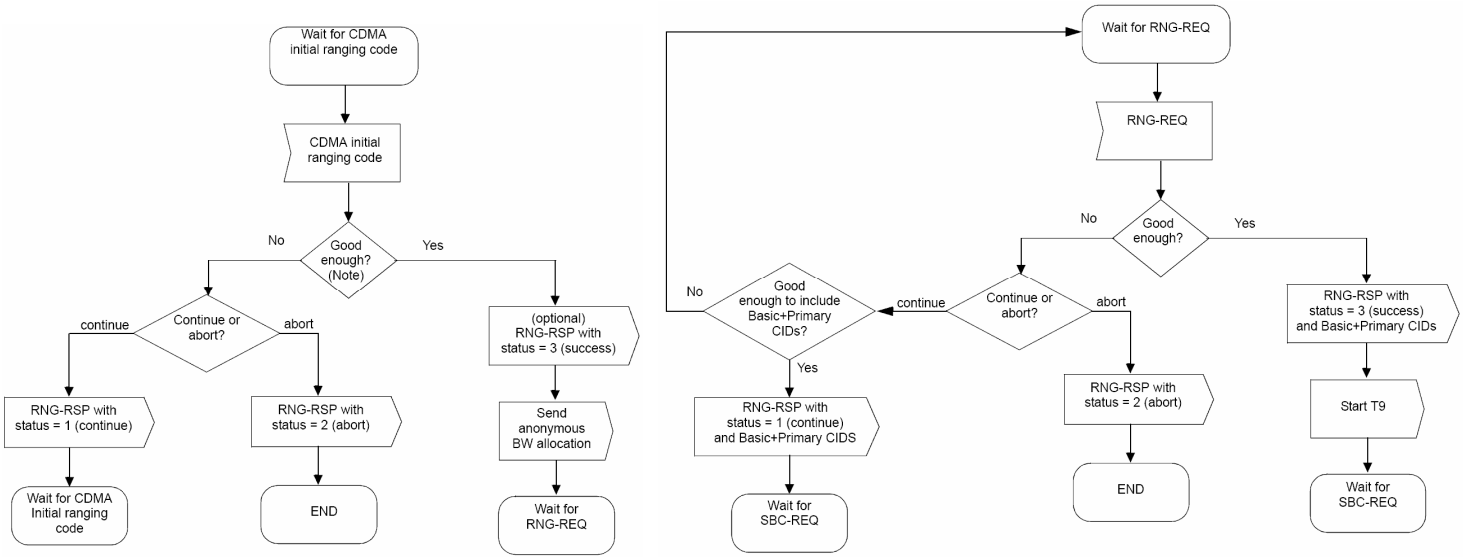
Introduction

In the current baseline document 802.16j-06_26r4, RS transmits a RNG-REQ to the MR-BS after receiving the CDMA code that requires no corrections is to request MR-BS to generate the CDMA_Allocation IE() for MS. Therefore, we propose to simplify the procedure for MS initial ranging with non-transparent RS by having RS locally sending a RNG_RSP message to the MS on the access link. As a result, the RS utilizes the same procedure to handle the received CDMA code resulting in the success status or continue status. Moreover, in **P80216Rev2_D0b**, it defines "***When the BS receives an initial-ranging CDMA code that requires no corrections, the BS shall provide BW allocation for the SS using the CDMA_Allocation_IE to send an RNG-REQ message. Sending the RNG-RSP message with status "Success" is optional***". Thus, this contribution proposes modification, consistent with **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. The flow charts of MS network entry procedures in Corrigenda 2/Draft 4 are provided in figure 1 for reference.



(a) Handle CDMA Initial Ranging Code at BS (b) Handle RNG-REQ (OFDMA PHY only)

Figure 1 MS network entry procedures

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~~ that requires adjustment of transmission parameters, the RS shall locally send a RNG_RSP message to the MS on the access link. 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]

Once a RS receives the CDMA code ~~resulting in success status~~ that requires no adjustment, 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.~~

[Change the following text in line 10 of page 83 as indicated]

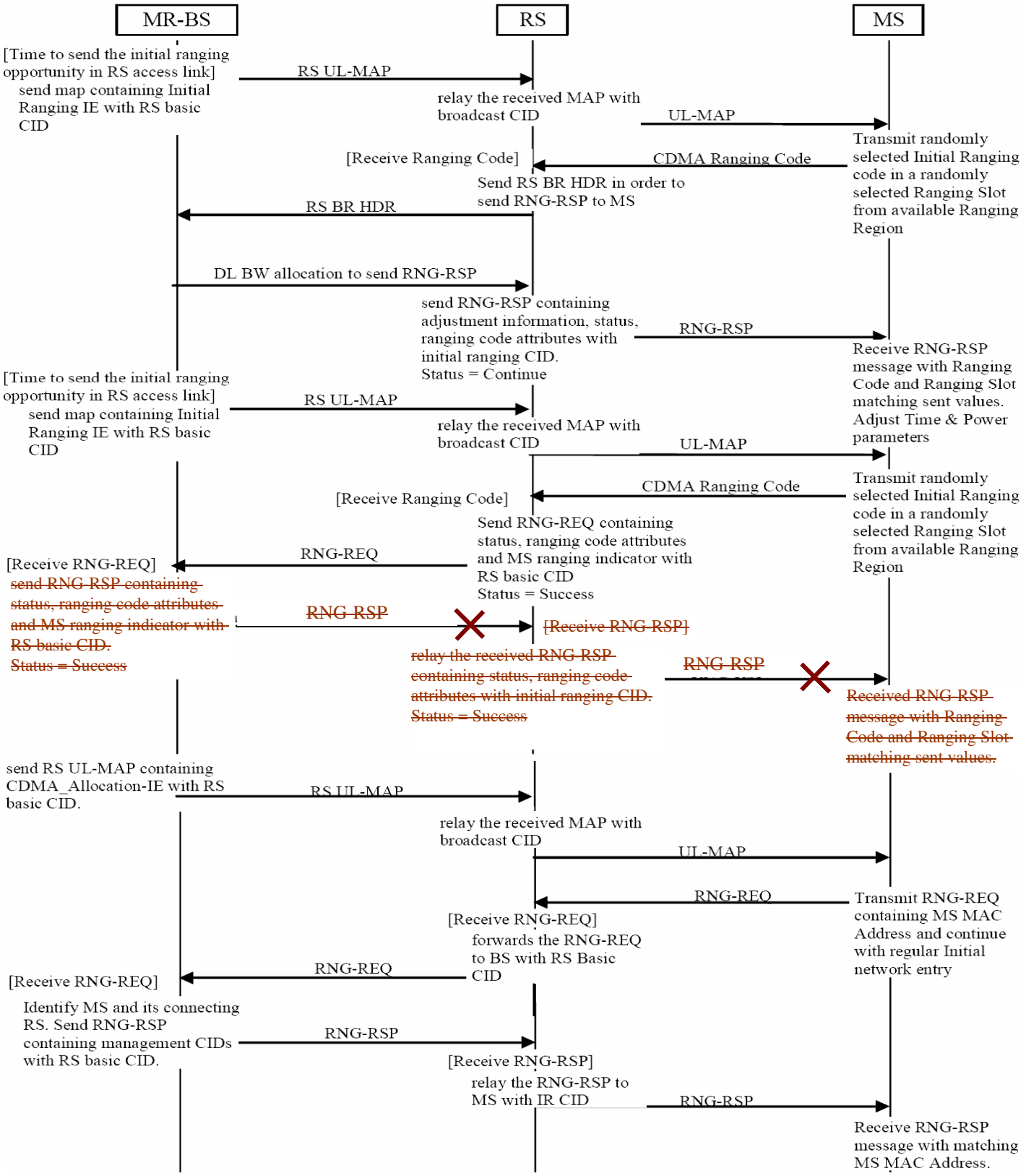
When the MR-BS receives the RNG-REQ with ~~success status~~ MS ranging indicator equal to 1, it may send a RNG-RSP containing abort status and the value of MS ranging indicator equal to 1 to the RS according to its policy. Otherwise, instead of sending RNG-RSP with success status, the MR-BS shall provide BW allocation for the MS by send~~s~~ing 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 35 of page 83 as following indicated:]

The message sequences chart (Table ~~xxx 1~~199b) and flow charts (Figure 95e, Figure 95f, Figure 95g) on the following pages defines the ranging and adjustment process that shall be followed by compliant RSs and MR-BSs. For CDMA ranging process between RS and MS, these details can be found in 6.3.10.3.

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

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



[Insert the following figures at the end of subclause 6.3.9.16.2.1:]

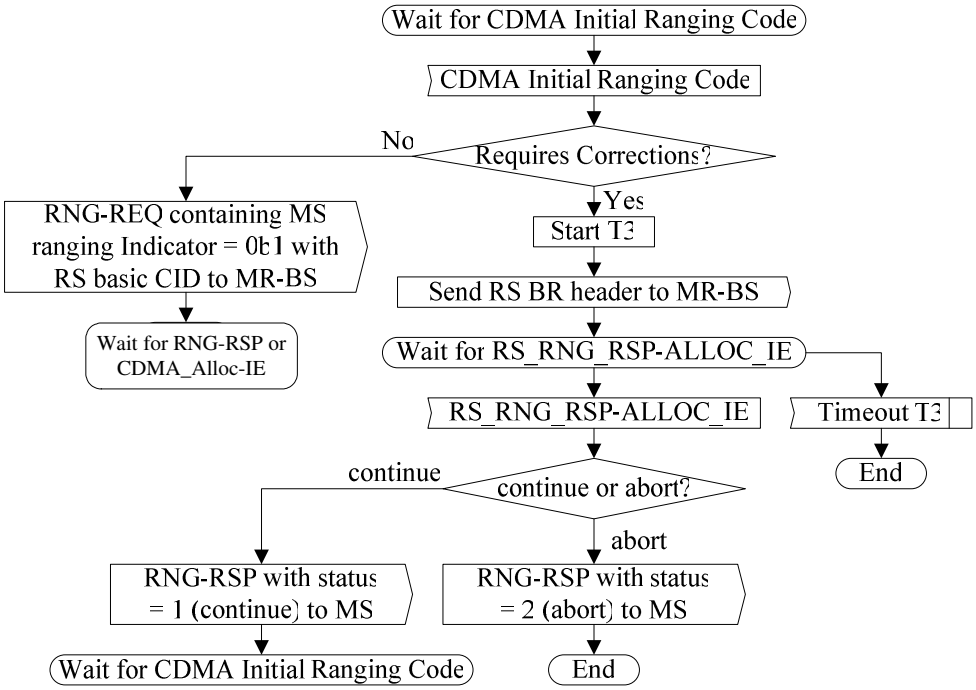
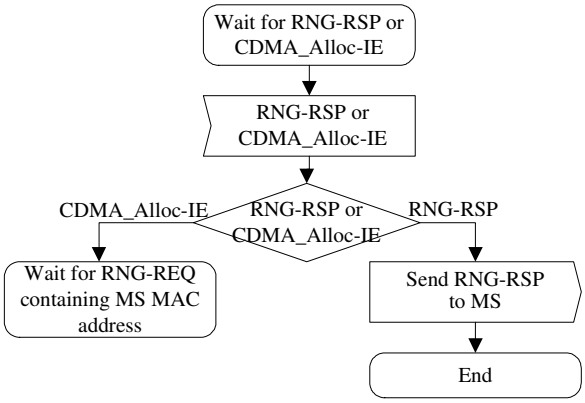


Figure 95e Handle CDMA Initial Ranging Code at Non-transparent RS



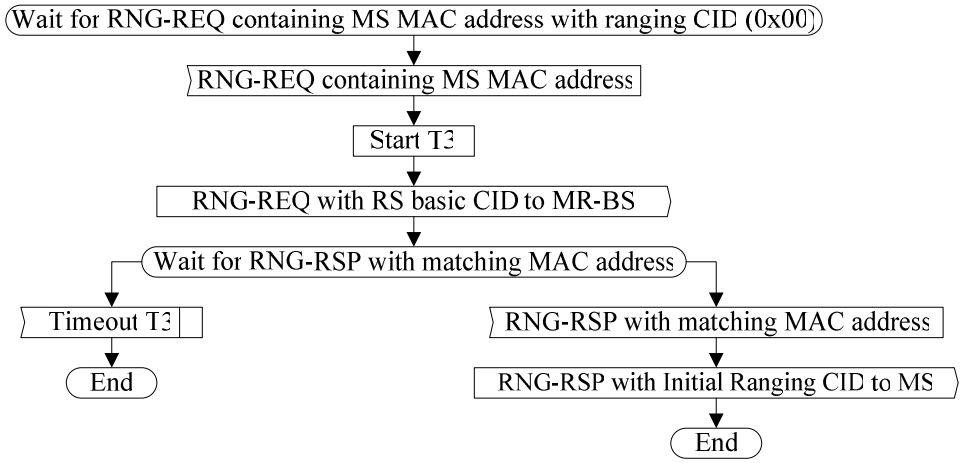
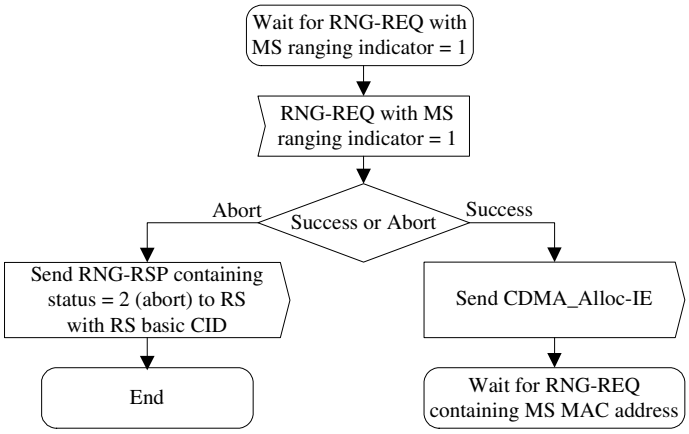


Figure 95f Handle RNG-REQ at non-transparent RS



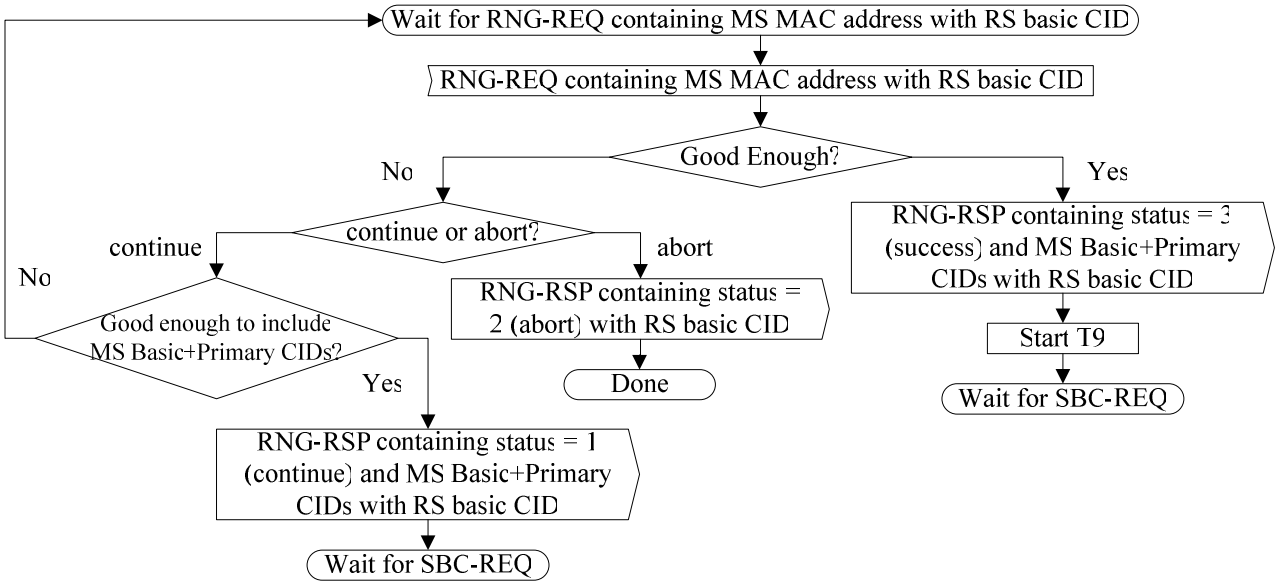


Figure 95g Handle RNG-REQ in non-transparent mode at MR-BS