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

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Introduction

This contribution describes flow charts for MS initial ranging with non-transparent RS under distributed scheduling scheme based on section 6.3.9.16.2 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.

Moreover, the flow charts of MS network entry procedures in "**P802.16Rev2/D0b**" (Cor2/D4) are provided in figure 1 for reference.
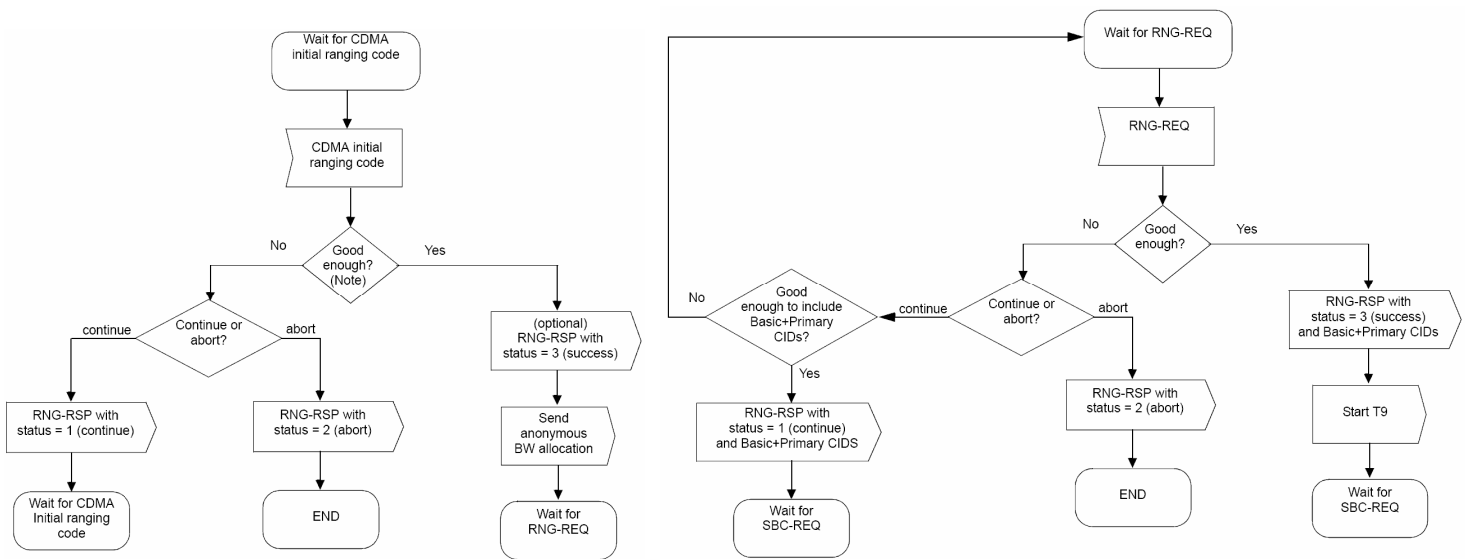
(a) Handle CDMA Initial Ranging Code at BS (b) Handle RNG-REQ (OFDMA PHY only)

Figure 1 MS network entry procedures

Text Proposal

6.3.9.16.2 MS network entry procedures in non-transparent RS systems

6.3.9.16.2.2 Non-transparent RS with Distributed scheduling

[change subclause 6.3.9.16.2.2 in line 54 of page 85 as following index:]

The message sequences charts (Table 199c and Table 199d) and flow charts (Figure 95i, Figure 95j, Figure 95k) on the following page 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.

[Insert the following figures at the end of subclause 6.3.9.16.2.2:]
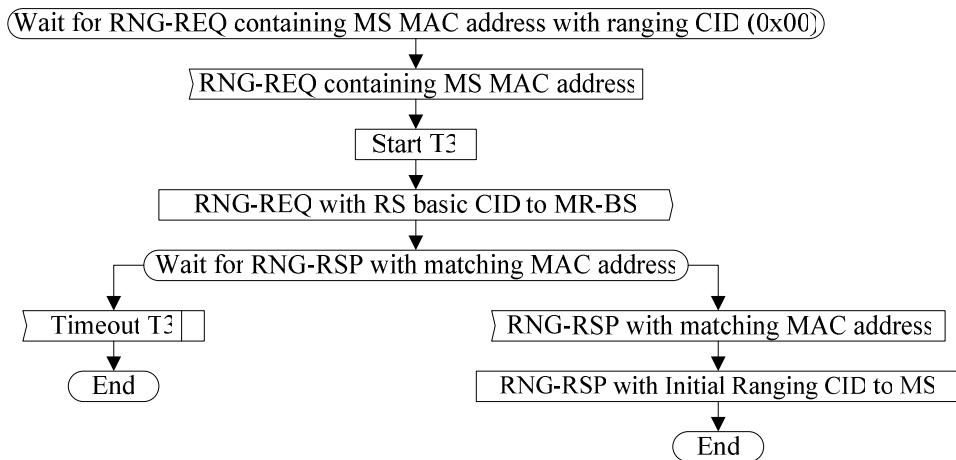
Wait for CDMA Initial Ranging Code

CDMA Initial Ranging Code

Good Enough?

No → continue or abort?

continue → RNG-RSP with status = 1 (continue) to MS → Wait for CDMA Initial Ranging Code

abort → RNG-RSP with status = 2 (abort) to MS → Done

Yes → (Optional) RNG-RSP with status = 3 (success) to MS → Send anonymous BW allocation → Wait for RNG-REQ
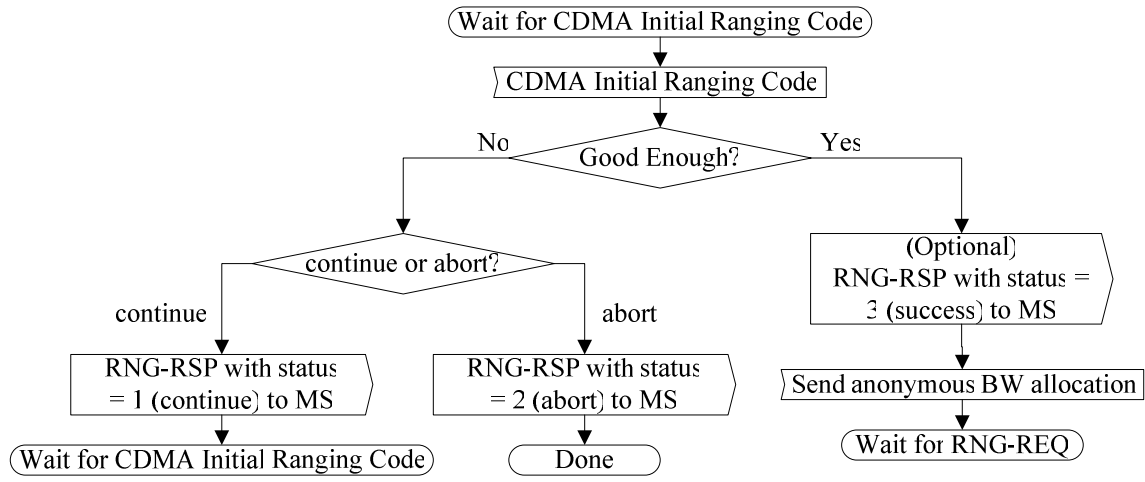
Figure 95i Handle CDMA Initial Ranging Code at Non-transparent RS

Wait for RNG-REQ containing MS MAC address with ranging CID (0x00)

RNG-REQ containing MS MAC address

Start T3

RNG-REQ with RS basic CID to MR-BS

Wait for RNG-RSP with matching MAC address

Timeout T3 → End

RNG-RSP with matching MAC address → RNG-RSP with Initial Ranging CID to MS → End

Figure 95j Handle RNG-REQ at Non-transparent RS

Wait for RNG-REQ containing MS MAC address with RS basic CID

RNG-REQ containing MS MAC address with RS basic CID

Good Enough?

No

Yes

continue or abort?

continue

abort

No

RNG-RSP containing status = 3 (success) and MS Basic+Primary CIDs with RS basic CID

Good enough to include MS Basic+Primary CIDs?

RNG-RSP containing status = 2 (abort) with RS basic CID

Start T9

Done

Wait for SBC-REQ

Yes

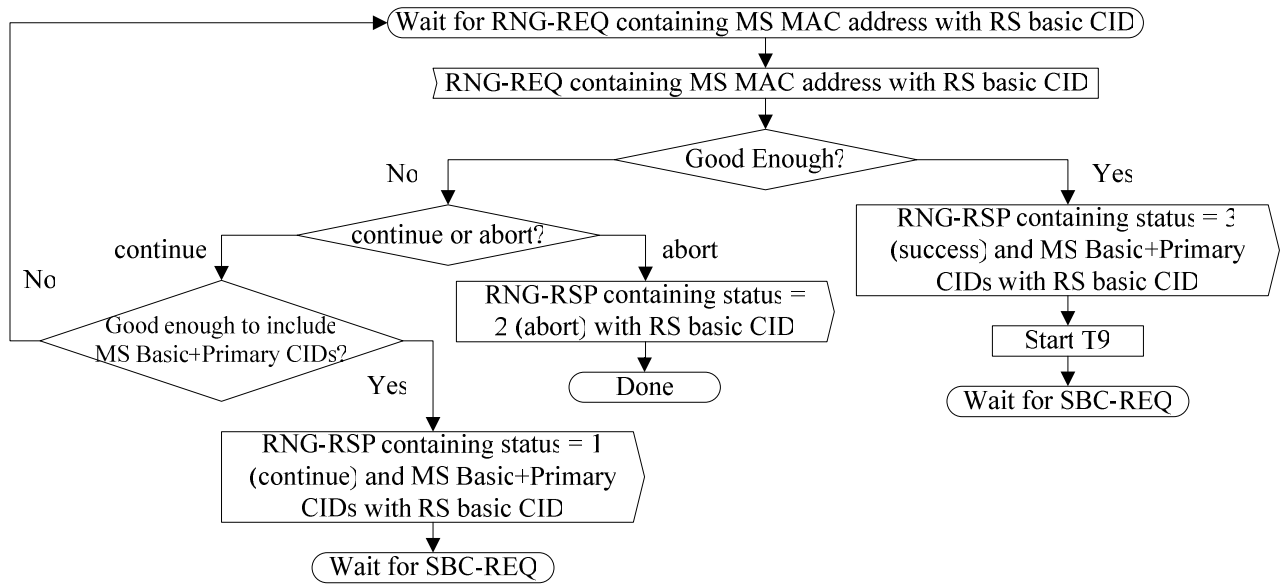RNG-RSP containing status = 1 (continue) and MS Basic+Primary CIDs with RS basic CID

Wait for SBC-REQ

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