Project	IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>	
Title	Unsolicited RNG-RSP in Transparent RS System	
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Re:	IEEE 802.16j-07/007r2: “Call for Technical Comments and Contributions regarding IEEE Project 802.16j”	

Abstract	This contribution proposes procedures for unsolicited RNG-RSP in transparent RS system
Purpose	Text proposal for 802.16j Baseline Document
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Unsolicited RNG-RSP in Transparent RS System

Introduction

This contribution describes MS unsolicited RNG-RSP in transparent RS system. In order to facilitate the incorporation of this proposal into IEEE 802.16j standard, specific changes to the baseline working document IEEE 802.16j-06/026r2 are listed below.

Text Proposal

6.3.10 Ranging

6.3.10.3 OFDMA based ranging

6.3.10.3.4 Relaying support for OFDMA based ranging

[Insert the following sebclause]

6.3.10.3.4.3 Unsolicited RNG-RSP in transparent RS systems

When the offsets of frequency, power, and timing for any other data transmission from the MS are beyond the tolerance defined in this specification or the MS have to attached to another access station, RSs shall transmit a RNG-REQ message with the RS basic CID containing the MS basic CID to the serving MR-BS through the relay path.

Upon receiving the RNG-REQ message from a subordinate RS, the MR-BS may send an unsolicited RNG-RSP message with this MS basic CID to the MS.

After RS received a bandwidth request CDMA ranging code resulting in continue status, it should transmit an RNG-REQ message with the RS basic CID containing the CDMA BR ranging code to the serving MR-BS through the relay path with adjustment information of frequency, power, and timing corrections. When RS receives multiple codes in the ranging subchannel of a frame, the RNG-REQ message sent by the RS to serving MR-BS may contain information of multiple received codes.

When the MR-BS receives a bandwidth request CDMA ranging code resulting in continue status, it shall wait for RNG-REQ with the same ranging code from its subordinate RSs for T48 timer. Once T48 timer expired, the MR-BS compares measured signal information at each station to decide the most appropriate path to communicate with the code originating MS, according to channel measurement information. When it needs to do adjustment for the code, the MR-BS shall broadcast an RNG-RSP with associated code attribute.

The message sequence charts (Table xxx and Table yyy) and flow charts (Figure xxx and Figure yyy) define

the unsolicited RNG-RSP process that shall be followed by compliant RSs and MR-BSs.

Table xxx: Unsolicited RNG-RSP triggered by upstream traffic in non-transparent RS system

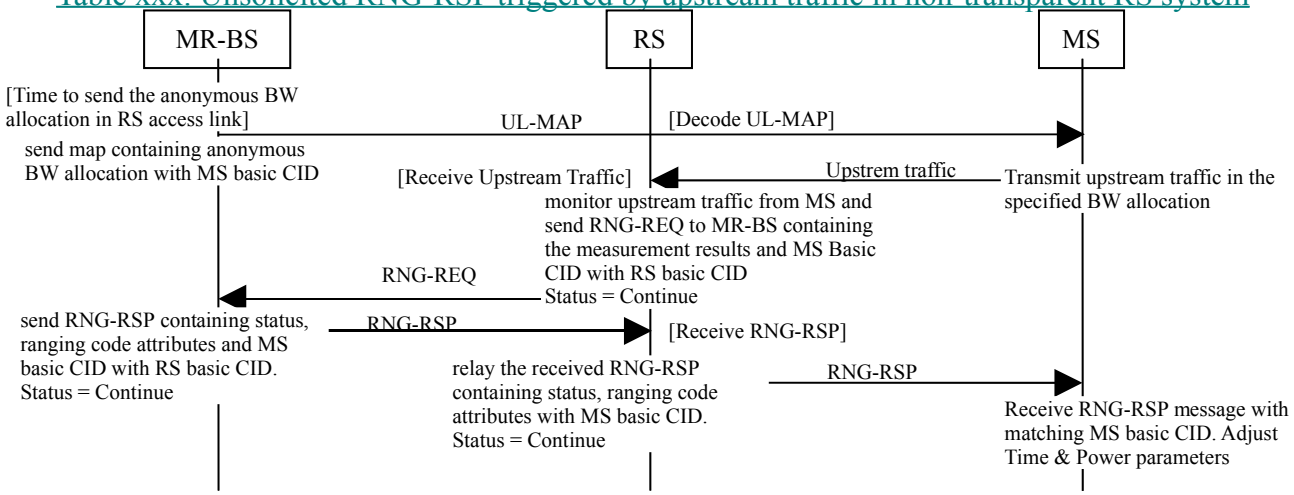
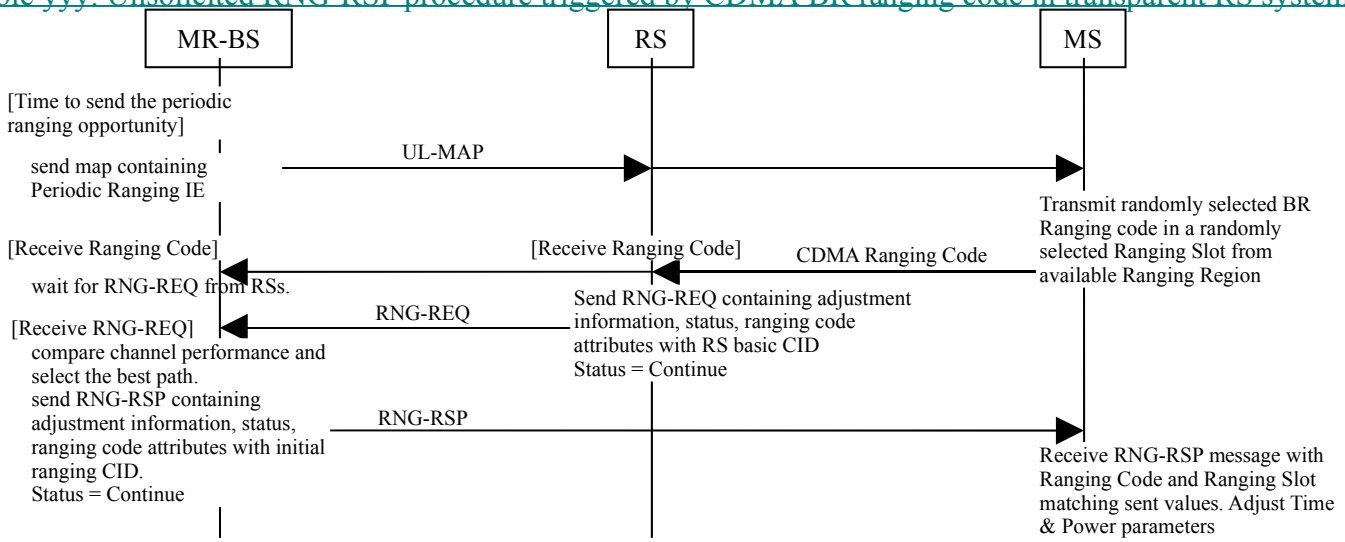


Table yyy: Unsolicited RNG-RSP procedure triggered by CDMA BR ranging code in transparent RS systems



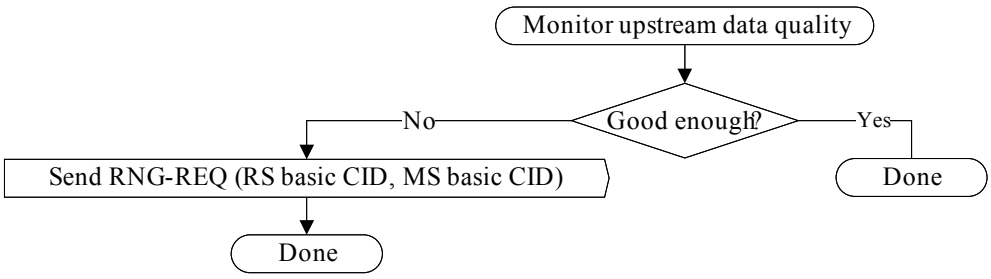


Figure xxx Unsolicited RNG-RSP in Transparent RS system – Transparent Access RS

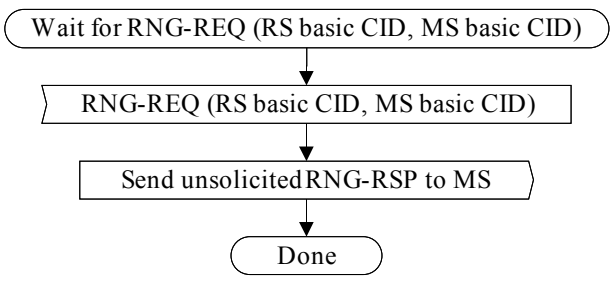


Figure yyy Unsolicited RNG-RSP in Transparent RS system– MR-BS

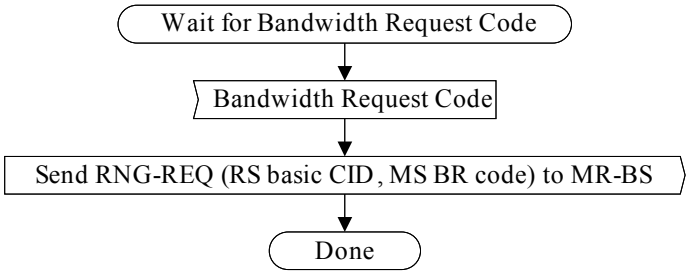


Figure xxx Unsolicited RNG-RSP triggered by CDMA BR ranging code in Transparent RS system – Transparent Access RS

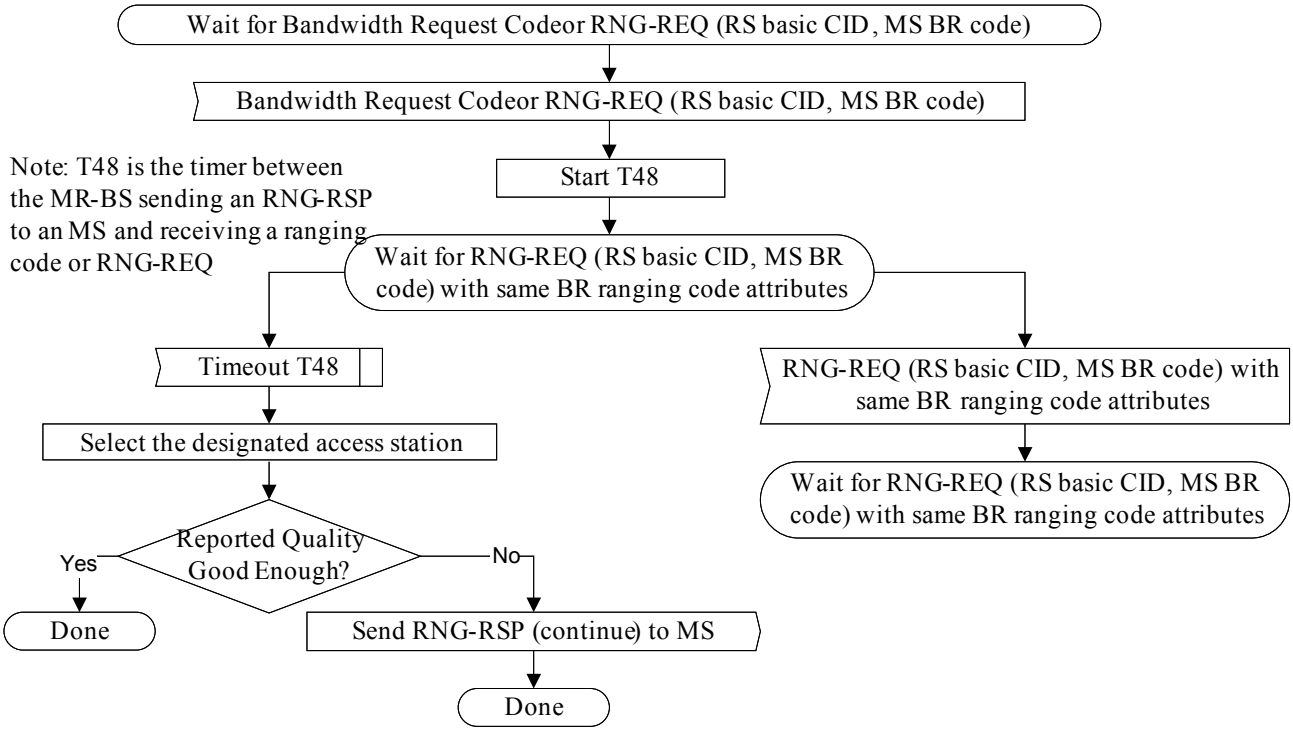


Figure yyy Unsolicited RNG-RSP triggered by CDMA BR ranging code in Transparent RS system– MR-BS

[Insert the following rows into Table 364 at 11.5 RNG-REQ TLV]

Table 364—RNG-REQ message encodings

Name	Type (1 byte)	Length	Value (variable-length)	PHY Scope
MS Basic CID	TBA.7	2	MS Basic CID	OFDMA