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Title	MS Periodic Ranging 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 MS periodic ranging in transparent RS	
Purpose	Text proposal for 802.16j Baseline Document	
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MS Periodic Ranging in Transparent RS System

Introduction

This contribution describes MS periodic ranging 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]

6.3.10.3.4.1 MS periodic ranging and automatic adjustments in transparent RS systems

The periodic ranging process shall begin by sending a periodic-ranging CDMA codes on the UL allocation dedicated for that purpose.

The code may be received by the MR-BS and RSs near the MS. RSs receiving the code shall transmit a RNG-REQ message with the RS basic CID to the serving MR-BS through the relay path. 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 ranging code, it shall wait for RNG-REQ message containing the same ranging code attribute from its subordinate RSs for T48 timer. Once T48 timer expired, the MR-BS could compare the measured signal information at each access station to decide adjustment information for RNG-RSP. Algorithms to decide adjustment information are out of scope of this specification. Afterward, the MR-BS shall transmit an RNG-RSP to the MS directly.

The message sequence charts (Table xxx) and flow charts (Figure xxx and Figure yyy) define the ranging and adjustment process that shall be followed by compliant RSs and MR-BSs.

Table xxx: Ranging and automatic adjustment procedure in transparent RS systems

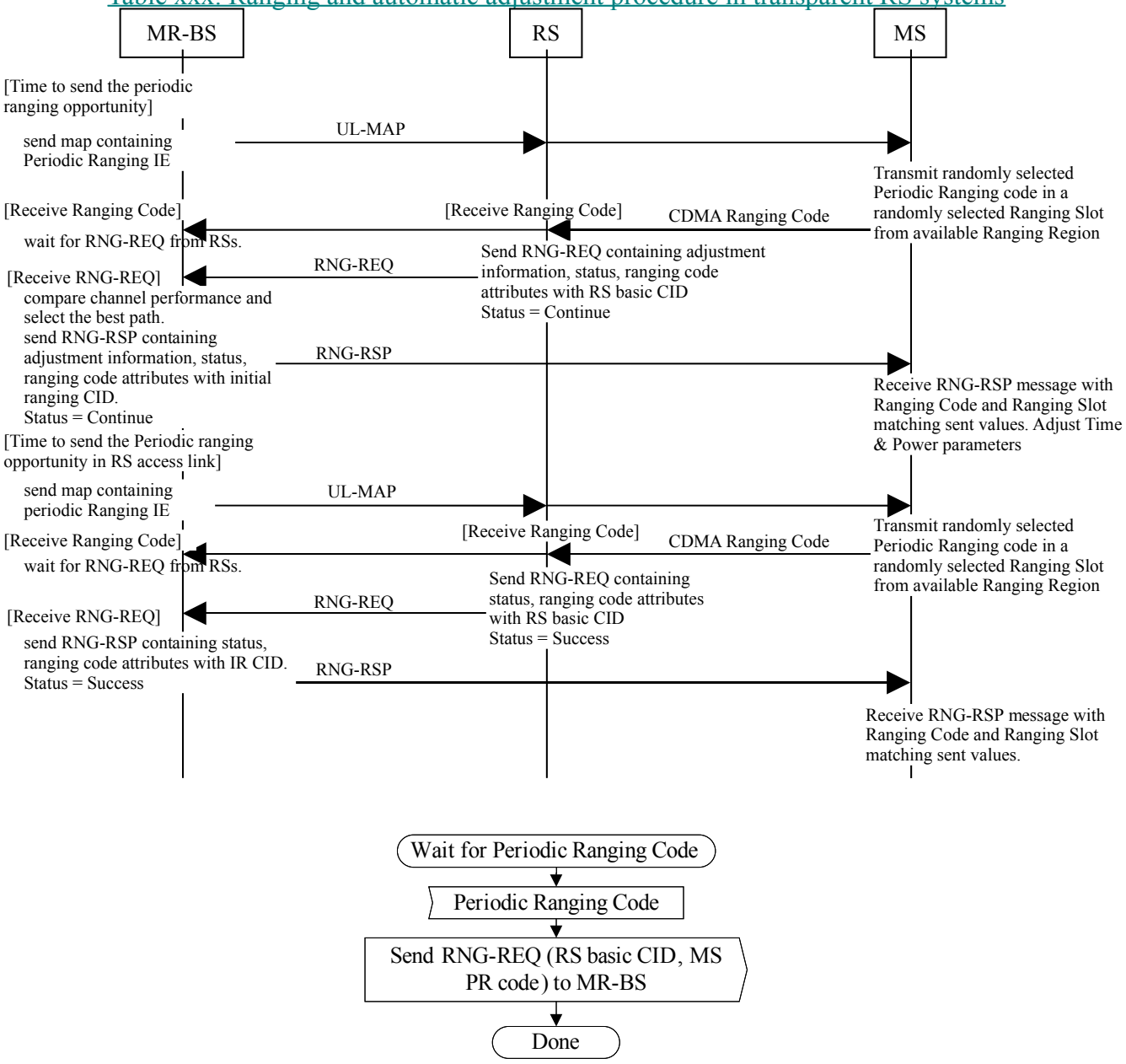

Figure xxx MS CDMA-based periodic ranging in transparent RS systems – Access Transparent RS

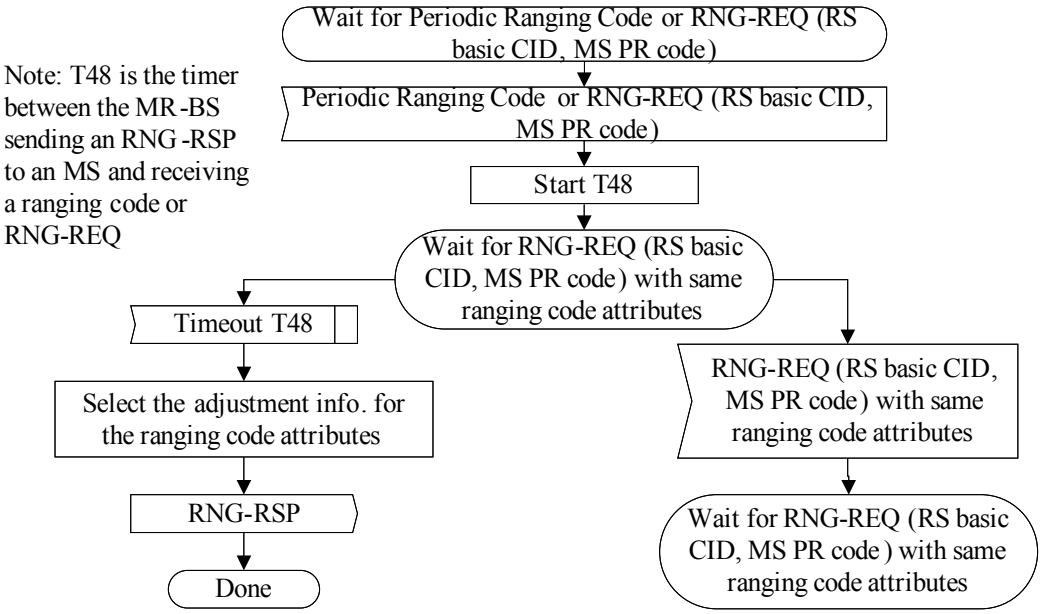

Figure yyy MS CDMA-based periodic ranging in transparent RS systems – MR-BS