Project	IEEE 802.16 Broadband Wireless Access Working Group <a href="http://ieee802.org/16">http://ieee802.org/16</a> >			
Title	RS Configuration Description Broadcast			
Date Submitted	2007-01-08			
Source(s)	Hang Zhang, Peiying Zhu, Wen Tong, David Steer, Gamini Senarath, Derek Yu, Mark Naden, G.Q. Wang Nortel 3500 Carling Avenue Ottawa, Ontario K2H 8E9			
Re:	A response to a Call for Technical Proposal, http://wirelessman.org/relay/docs/80216j-06_034.pdf			
Abstract	For a RS network entry, there may be a need for RS configuration procedure controlled by MMRBS over the air. This contribution proposes a pair of MAC management messages for this purpose.			
Purpose	To incorporate the proposed text into the P802.16j Baseline Document (IEEE 802.16j-06/026r1)			
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.			
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.  The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures <a href="http://ieee802.org/16/ipr/patents/policy.html">http://ieee802.org/16/ipr/patents/policy.html</a> , including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <a href="mailto:chair@wirelessman.org">mailto:chair@wirelessman.org</a> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site <a href="http://ieee802.org/16/ipr/patents/notices">http://ieee802.org/16/ipr/patents/notices</a> .			
Patent Policy and Procedures				

## **RS configuration Description Broadcast**

Hang Zhang, Peiying Zhu, Wen Tong, David Steer, Gamini Senarath, Derek Yu, Mark Naden, G.Q. Wang
Nortel

## Introduction

With relay station introduced, some configuration parameters specific for normal operation of RSs may be required. There are some examples, such as, ranging back-off, radio environment report threshold, HARQ related parameters, and so on. This contribution suggests introducing a message dedicated to broadcast configuration parameters specific for RS operation.

## Introduction of RS configuration description management messages

In fact, 802.16e DCD and UCD massages can be modified to include those new configurations. However, there are following disadvantages using DCD/UCD for this purpose:

- The DCD/UCD would include new TLVs which are irrelative to the operation of 802.16e MSs. It is not efficient for a MS to decode the lengthy DCD/UCD message
- Especially, when the change/update of MS related configuration and that of RS related configuration are not synchronized, even though a DCD/UCD may only contain updated RS related configure parameters, a MS has to decode this message.

In this contribution, we suggest to introduce RS configuration description message RS-CD management message to enable a MMRBS to broadcast RS specific configuration parameters to RSs.

The RS-CD message includes configuration parameters for both DL and UL.

## 3. Proposed text change

[Modify the last row in Table 14 in page 46 as follows]

Type	Message name	Message description	Connection
<del>62-255</del> <u>-67</u>	RS CD	RS specific configuration description sent by MMRBS and forwarded by intermediate RSs	Broadcast to all associated RS of a MMRBS
<u>68-255</u>		Reserved	

[Add new sections 6.3.2.3.62 after section 6.3.2.3.61 in page 172]

6.3.2.3.63 RS configuration description message

This massage is a broadcast message aomong associated RSs of a MMRBS. This message is transmitted by a MMRBS and forwarded by intermediate RSs. This massge is used by a MMRBS to broadcast description of configuration specific to all of its associated RSs to enable RSs' operations, such as network entry, initialization, and 802.16e traffic forwarding.

<u>Table XXX. RS\_configuration description (RS-CD) message format.</u>

Syntax	Size	Notes
RS_CD format {		
Management message type = 67	8 bits	
TLVs	<u>Variable</u>	Configuration TLV
1		