2007-01-18 IEEE C802.16j-07/063r1

Project	IEEE 802.16 Broadband Wireless Access Working Group <a href="http://ieee802.org/16">http://ieee802.org/16</a> >		
Title	MS Handover Ranging with RS		
Date	2007-01-18		
Submitted			
Source(s)	Kanchei (Ken) Loa, Yi-Hsueh Tsai, Chih-Chiang Hsieh, Yung-Ting Lee, Hua-Chiang Yin, Shiann-Tsong Sheu, Frank C.D. Tsai, Youn-Tai Lee, Heng-Iang Hsu Institute for Information Industry 8F., No. 218, Sec. 2, Dunhua S. Rd., Taipei City, Taiwan.	Voice: +886-2-2739-9616 loa@iii.org.tw	
	Hang Zhang, Peiying Zhu, Mo-Han Fong, Wen Tong, David Steer, Gamini Senarath, Derek Yu, Mark Naden, G.Q. Wang	Voice: +1 613 7631315 WenTong@nortel.com pyzhu@nortel.com	
	Nortel 3500 Carling Avenue Ottawa, Ontario K2H 8E9  [add co-authors here]		
Re:	IEEE 802.16j-06/034: "Call for Technical Proposals regarding IEEE Project P802.16j"		
Abstract	This contribution proposes procedures for MS handover ranging with RS		
Purpose	Text proposal for 802.16j Baseline Document		
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.		
Patent	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures		
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		

2007-01-18 IEEE C802.16j-07/063r1

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 <mailto:chair@wirelessman.org> 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>.

2007-01-18 IEEE C802.16j-07/063r1

## MS Handover Ranging with RS

## Introduction

This contribution describes MS handover ranging with RS under centralized scheduling scheme. An RS that supports MS handover ranging shall take a process similar to that defined in C80216j-07/056, MS initial ranging with transparent RS and C80216j-07/055, MS initial ranging with non-transparent RS. In order to facilitate the incorporation of this proposal into IEEE 802.16j standard, specific changes to the baseline working document IEEE 802.16j-06/026r1 are listed below.

## **Text Proposal**

**6.3.10 Ranging** 

6.3.10.3 OFDMA based ranging

6.3.10.3.6 Relaying support for OFDMA based ranging

6.3.10.3.4.7 MS CDMA handover ranging and automatic adjustment with RS

An RS that supports MS handover ranging shall take a process similar to that defined in section xxx with the following modifications.

In CDMA handover ranging process, the CDMA handover ranging code is used instead of the initial ranging code. The code is selected from the handover-ranging domain as defined in 8.4.7.3.

Alternatively, the serving MR-BS may proactively notify the RS that an MS will handover to it by using RLY\_MSHO-NTF message. In such case, the serving MR-BS should provide BW allocation for the MS by transmitting an RLY-BST to the RS. RLY\_MSHO-NTF message is defined in xxx. Afterward, the RS should construct Fast\_Ranging\_IE and send to the MS for the MS to transmit an RNG-REQ message.

<u>Table xxx – RLY\_MSHO-NTF message format</u>

Syntax	<u>Size</u>	Notes
RLY_MSHO-NTF_Message_Format(){		
$\underline{\text{Management Message Type}} = xx$	8 bits	
Encoded Information	<u>variable</u>	<u>TBD</u>
1		