

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Reporting CINR mean to Serving BS	
Date Submitted	2004-05-10	
Source(s)	Changjae Lee, Kiseon Ryu, Yongseok Jin, Yongho Kim, Kihyoung Jo LG Electronics, Inc. 533, Hogye-1dong, Dongan-gu, Anyang-shi, Kyongki-do, Korea	Voice: 82-31-450-4387 Fax: 82-31-450-7912 [mailto:cjlee16@lge.com]
Re:	This contribution is response to call for contribution about IEEE802.16e-D2	
Abstract	MSS shall report CINR mean to Serving BS using MSS-CINR-REP message	
Purpose	This document is submitted for review by 802.16e Working Group members	
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 Policy and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures < http://ieee802.org/16/ipr/patents/policy.html >, 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 < 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 < http://ieee802.org/16/ipr/patents/notices >.	

Reporting CINR mean to Serving BS

Changjae Lee, Kiseon Ryu, Yongseok Jin, Yongho Kim, Kihyoung Cho
LG Electronics

1. Problem Statement

In the IEEE802.16e-D2, It is necessary for MSS to provide periodical reports to Serving BS about reception CINR mean of the neighbor BS. For this reason, MSS transmits CINR mean by MOB-BSHO-REQ message at a periodic interval that is in “MAHO report period” field of the MOB-NBR-ADV message.

Standard indicates on the line 38, page 21, “ by the MOB-BSHO-REQ message of active MSS’s”. However, MOB-BSHO-REQ message goes from Serving BS to MSS and CINR mean should come form MSS to Serving BS. Therefore, we conjecture that originally MOB-BSHO-REQ is intended for MOB-MSSHO-REQ message.

If this is the case, there is a big problem. The MOB-MSSHO-REQ message is transmitted by MSS only when MSS wants to initiate an HO. Since MSS uses MOB-MSSHO-REQ for an HO initialization, it doesn’t make sense for MSS to transmit “ periodically”.

2. Proposed Remedy

Therefore, The MOB-MSSHO-REQ message can not be used for reporting periodically CINR mean to Serving BS. We propose a new MSS-CINR-Report message to report CINR mean periodically to Serving BS.

We propose the remedy as following :

- change sentence page 21, line 38, section 6.3.2.3.50
- Add a new section 6.3.2.3.51 for MSS-CINR-Report message after section 6.3.2.3.50 in page 21.

[Change the sentence page 21, line 38]

MAHO report period- Length of time interval (in multiples of 100msec) between reports of the neighbor BS's reception CINR mean, ~~by the MOB-BSHO-REQ message of active MSS's (not I sleep mode)~~ **by MSS-CINR-Report message of MSS normal operation.** ~~All other parameters are coded as TLV values (see Table 282a). All TLV items are optional.~~

[Insert the following after section 6.3.2.3.50 in page 21]

6.4.2.3.51 CINR mean Report (MSS-CINR-Report) message

An MSS shall transmit a MSS-CINR-Report message to the Serving BS for the purpose of reporting measured CINR mean of neighbor BSs

Table NNN – MSS-CINR-REP Message Format

<u>Syntax</u>	<u>Size</u>	<u>Note</u>
<u>MSS-CINR-Report_Message_Format() {</u>		
<u> Management Message Type = TBD</u>	<u>8 bit</u>	
<u> For (j=0; j<N_NEIGHBORS; j++) {</u>		<u>N_NEIGHBORS can be derived from the know length of the message</u>
<u> Neighbor BS-ID</u>	<u>48bit</u>	
<u> BS CINR mean</u>	<u>8 bit</u>	
<u> }</u>		
<u>}</u>		

An MSS shall generate MSS-CINR-Report message in the format shown in Table nnn. The following parameters shall be included in the MSS-CINR-Report message :

Neighbor BS-ID

Same as the Base Station ID parameter in the DL-MAP message of Neighbor BS

BS CINR mean

This parameter indicates the signal to noise and interference ratio measured by the MSS from the particular BS. The value shall be interpreted as an unsigned byte with units of 1dB.