Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**MOB_MSHO-REQ Message Correction**
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Re:	Response to Sponsor Ballot on IEEE802.16e/D6 document
Abstract	Clean up of MOB-MSHO-REQ message
Purpose	To incorporate the text changes proposed in this contribution into the 802.16e/D7 draft.
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MOB-MSHO_REQ Message Clean Up

Mary Chion, Mo-Han Fong

1. Problem Statement

MOB-MSHO_REQ message was changed in IEEE802.16e/D6 to introduce Comp_NBR_BSID_IND. However, there are some errors in the MOB-MSHO-REQ message after the change. The error is that the loop for N_current_BS has been removed from that of the D5 text.

This contribution provides modification to MOB_MSHO-REQ message in the D6 text.

2. Specific Text Changes

[Modify the following section:]

6.3.2.3.52 MS HO Request (MOB_MSHO-REQ) message

Syntax	Size	Notes
MOB_MSHO-REQ_Message_Format() {		
Management Message Type = 57	8 bits	
Comp_NBR_BSID_IND	1 bit	
if (Comp_NBR_BSID_IND == 1){		
Configuration Change Count for MOB_NBR_ADV	8 bits	Configuration Change Count value of referring MOB_NBR_ADV message
}		
N_new_BSs	3 bits	Number of new BSs which are recommended by the MS
for (j=0; j<N_~~N~~new_BSs; j++){		~~N_Recommended can be derived from the known length of the message~~
if (Comp_NBR_BSID_IND == 1){		
Neighbor BS index	8 bits	
}		
else{		
Neighbor BSID	48 bits	
}		
Preamble index/ Preamble Present & Subchannel Index	8 bits	For the SCa and OFDMA PHY this parameter defines the PHY specific preamble for the neighbor BS. For the OFDM PHY the 5 LSB contain the active DL subchannel index for the neighbor BS. The 3 MSB shall be Reserved and set to '0b000'.
BS CINR mean	8 bits	
Service level prediction	3 bits	
Arrival Time Difference Indication	1 bit	If the MS is transmitting this message to request HHO or SHO/FBSS is not supported by either BS or MS, this bit shall be set to '0'
If (Arrival Time Difference Indication == 1)		
{		
Arrival Time Difference (t)	4 bits	Relative difference in arrival time between the neighbor BS and the anchor BS, in terms of fraction of CP
}		
}		
~~if (SHO/FBSS support indication == 1)~~		
N_current_BSs	3 bits	When FBSS/SHO is supported and the MS has non-empty active set, N_current_BSs is the number of BSs that are currently in the Active Set of the MS When FBSS/SHO is not supported or the MS has an empty active set, N_current_BSs is set to 1
For (j=0 ; j<N_current_BSs ; j++) {		
Temp ~~BS-ID~~ BSID	4 bits	Active Set member ID assigned to this BS. When the MS has an empty active set or FBSS/SHO is not supported, Temp BSID shall be set to 0.
BS CINR mean	8 bits	
}		
Estimated HO start	8 bits	The estimated HO time shall be the time for the recommended target BS.
HMAC Tuple	21 bytes	See 11.1.2
……		

[Insert the following paragraphs on Page 106 after line 14 (before 6.3.2.3.53):]

When the MS supports FBSS/SHO and has a non-empty active set, the MS shall include the following parameters for each active BS. When the MS does not support FBSS/SHO or has an empty active, the MS shall include the following parameters for the current serving BS.

Temp BSID

When the MS support FBSS/SHO and has a non-empty active set, Temp BSID is the active set member ID. When the MSS doesn't support FBSS/SHO or has an empty active set, Temp BSID shall be set to 0.

BS CINR mean

The BS CINR mean parameter indicates the CINR in dB measured at the MS on the downlink signal of a particular BS. The value shall be interpreted as a signed byte with the resolution of 0.5 dB. The measurement shall be performed on the frame preamble and averaged over the measurement period.

3. References

[1] IEEE 802.16- 2004 IEEE Standards for local and metropolitan area networks part 16: Air interface for fixed broadband wireless access systems

[2] IEEE P802.16e-D6-2004