Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	Bug Fix for SN reporting during FBSS and HO
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Re:	IEEE P802.16e/D8-2004
Abstract	This contribution provides bug fix for SN reporting during FBSS and HO
Purpose	Review and Adopt the suggested changes into P802.16e/D8
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1 Introduction

In p802.16e/D8, for the MS-assisted coordination of DL transmission during FBSS (6.3.21.3.5) and HO (6.3.21.3.5), a MS may send SN Report MAC header(s) to the new anchor or target BS to keep the continuity of DL data flow transmission without depending backhaul communication.

However, if the SN report MAC header(s) are lost, there is no means defined in the standard for the new anchor/target BS to request the SN report from the MS. This contribution defines "SN request" extended subheader to enable a new anchor/target to request the MS to send the SN report MAC header.

2 Proposed text change

[Modify Table 13b – Description of extended sunheaders as the following]:

ESF bit	Name	Size(bytes)	Description
0 (LSB)	SDU_SN extended sunheader	1	See 6.3.2.2.7.1
1	DL Sleep control extended subheader	3	See 6.3.2.2.7.2
2	Feedabck request extended subheader	3	See 6.3.2.2.7.3
3	MIMO mode feedback extended subheader	1	See 6.3.2.2.7.4
4	UL Tx power report extended subheader	1	See 6.3.2.2.7.5
5	Mini-Feedback extended subheader	2	See 6.3.2.2.7.6
6	SN request extended subheader	4	See 6.3.2.2.7.7
Bit #~~6~~7-127	*Reserved*		

[Add a new section- 6.3.2.2.7.7 before Section 6.3.2.3 MAC Management messages]

6.3.2.2.7.7 SN request extended subheader

The SN request extended subheader is sent by the BS to request the MS to send the SN report header on the assigned UL region. The fields of the SN request extended subheader are defined in Table 13i.

Table 13i – Description of SN request extended sunheader.

Name	Size (bits)	Description
SN report indication	2	Bit #0: set to 1 to request transmission of the first SN report header Bit #1: set to 1 to request transmission of the second SN report header
UIUC	4	-
OFDMA symbol offset	8	
Subchannel offset	7	
Duration	3	In slots
Repetition coding indication	2	
Reserved	6	-

[Modify the paragraph on page 190, lines 41-47 in Section 6.3.21.3.5.1]

— At the expiration of the Anchor switch timer, the new anchor BS should assign UL resource for the MS to transmit the LSB of the sequence number(s) of ARQ block or virtual MAC SDU on the SN Report MAC header (6.3.2.1.6). The MS subsequently sends up to two SN Report MAC headers that include the next ARQ Block (or virtual MAC SDU) sequence number that it is expecting for each of its connections that have SN feedback enabled. The MS shall send the sequence number in numerical ascending order of the values of the CIDs values. The MS may send the SN report header(s) to explicitly request a MS to send SN report header.

[Modify the paragraph on page 191, lines 27-34 in Section 6.3.21.3.5.2]

Upon completion of HO and NW re-entry, the Target BS (now new Serving BS) should assign UL resource for the MS to transmit the LSB of the sequence number(s) of ARQ block or virtual MAC SDU on the SN Report MAC header (6.3.2.1.5). The MS subsequently sends up to two SN Report MAC headers that include the next ARQ Block (or virtual MAC SDU) sequence number that it is expecting for each of its connections that have SN feedback enabled. The MS shall send the sequence number in numerical ascending order of the values of the CIDs values. The MS may send the SN report header(s) to explicitly request a MS to send SN report header.