Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>
Title	**Clarification on MAC header over IEEE 802.16.1a**
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Re:	"IEEE 802.16-12-271," in response to Letter Ballot Recirc #38a on P802.16.1a/D2
Abstract	Clarification on MAC header in GRIDMAN Draft Standard
Purpose	To discuss and adopt the proposed text in the draft amendment document on GRIDMAN
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Clarification on MAC header over IEEE 802.16.1a

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1. Introduction

This document provides clarification on the MAC header.

2. References

[1] IEEE 802.16-12-0132-00, GRIDMAN System Requirement Document including SARM annex, January 2012.
[2] IEEE P802.16n™/D2, Air Interface for Broadband Wireless Access Systems - Draft Amendment: Higher Reliability Networks, April 2012.
[3] IEEE P802.16.1a™/D2, WirelessMAN-Advanced Air Interface for Broadband Access Systems - Draft Amendment: Higher Reliability Networks, April 2012.
[4] EEE P802.16Rev3/D6, IEEE Draft Standard for Local and metropolitan area networks; Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems," April 2012.
[5] IEEE P802.16.1™/D6, IEEE Draft for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems, April 2012.

3. Proposed Text on the IEEE 802.16.1a Amendment Draft Standard

Note:

The text in **BLACK** color: the existing text in the P802.16.1a Amendment Draft Standard

The text in ~~**RED**~~ color: the removal of existing P802.16.1a Amendment Draft Standard Text

The text in **BLUE** color: the new text added to the P802.16.1a Amendment Draft Standard Text

[----------Start of Text Proposal----------]

[*Remedy1: change line #6-9, page 4 on P802.16.1a/D2 as follows:*]

6.2.2 MAC PDU formats

Change ~~Table 5~~ Table 6 in 6.2.2.1.3 as indicated:

~~Table 5~~ Table 6 - Type field encoding for MAC signaling header types

Type field (5-bits)	MAC signaling header type
00000	BR with STID
~~...~~	
00001	BR without STID
00010	Service specific scheduling control header
00011	Sleep control
00100	AMS battery level report
00101	Uplink power status report
00110	Correlation matrix feedback
00111	MIMO feedback
~~01000-11111~~	~~*Reserved*~~
~~01000~~	~~Switched Access Control~~
~~01001-11111~~	~~*Reserved*~~
01000	Grant Management
01001	Switched Access Control
01010-11111	*Reserved*

[*Remedy2: change from line #3, page 5 to line #1, page 6 on P802.16.1a/D2 as follows:*]

Insert new subclause 6.2.2.1.3.9 as indicated:

6.2.2.1.3.9 Switched access control

The Switched Access Control signaling header shall be used to convey control signaling related to the switched access in FBIS by Designated FBIS HR-MS or any of two serving HR-BSs.

Table ~~13a~~16a - Switched access control header format

Syntax	Size (bits)	Notes
Switched Access Control () {		
FID	4	Flow Identifier. This field indicates MAC signaling header. Set to 0010.
Type	5	MAC signaling header type = ~~01000~~ 01001
Length	3	Indicates the length of the signaling header in bytes
SAC sub-type	3	0b000 = Access Request 0b001 = Access Response 0b010 = Switched Access Termination Request 0b011 = Switched Access Termination Response 0b101~0b111 = Reserved
If (RAC subtype == 0b000) {		
Requested Switched Access Window Size	7	Requested access time in frames
Bandwidth Request Indication	1	Indicates that Designated FBIS HR-MS has data to send
If (Bandwidth Request Indication == 1) {		
BR Size	19	Aggregate bandwidth request size in bytes
BR FID	4	The FID for which UL bandwidth is requested
STID	12	STID of Designated FBIS HR-MS which request UL bandwidth
}		
} else if (SAC subtype == 0b001) {		
Status	1	0b0 : Switched access granted, allocates Switched Access Window 0b1 : Switched access not granted, Switched Access Window not allocated
If (Status == 0) {		

Table ~~13a~~16a - Switched access control header format

Syntax	Size (bits)	Notes
Switched Access Window	7	LSB of frame sequence. Indicates the frame that Switched Access Window ended
} else if (RAC subtype == 0b011) {		
Termination reason	2	0b00 : Backbone recovery 0b01 : No connection for FBIS 0b10 : Link failures 0b11 : reserved
} else if(RAC subtype == 0b011) {		
Status	1	0b0 : Termination request granted 0b1 : Termination request not granted
}		
Padding	variable	For byte alignment
}		

[----------End of Text Proposal----------]