Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>
Title	**Proposed Change on AAI-MG-IND over IEEE 802.16.1a**
Date Submitted	**2011-10-31**
Source(s)	Eunkyung Kim, Sungcheol Chang, Won-Ik Kim, Seokki Kim, Sungkyung Kim, Miyoung Yun, Hyun Lee, Chulsik Yoon, Kwangjae Lim ETRI Voice: +82-42-860-5415 E-mail: ekkim@etri.re.kr scchang@etri.re.kr
Re:	"IEEE 802.16n-11/0020," in response to Call for Comments on GRIDMAN AWD
Abstract	AAI-MG-IND message format clarification on IEEE 802.16 GRIDMAN Amendment Draft Standard
Purpose	To discuss and adopt the proposed text in the draft amendment document on GRIDMAN
Notice	*This document does not represent the agreed views of the IEEE 802.16 Working Group or any of its subgroups*. It represents only the views of the participants listed in the "Source(s)" field above. It is offered as a basis for discussion. It is not binding on the contributor(s), who reserve(s) the right to add, amend or withdraw material contained herein.
Copyright Policy	The contributor is familiar with the IEEE-SA Copyright Policy <http://standards.ieee.org/IPR/copyrightpolicy.html>.
Patent Policy and Procedures	The contributor is familiar with the IEEE-SA Patent Policy and Procedures: <http://standards.ieee.org/guides/bylaws/sect6-7.html#6> and <http://standards.ieee.org/guides/opman/sect6.html#6.3>. Further information is located at <http://standards.ieee.org/board/pat/pat-material.html> and <http://standards.ieee.org/board/pat>.

Proposed Change on AAI-MG-IND over IEEE 802.16.1a

Eunkyung Kim, Sungcheol Chang, Won-Ik Kim, Seokki Kim, Sungkyung Kim, Miyoung Yun, Hyun Lee, Chulsik Yoon, Kwangjae Lim
ETRI

1. Introduction

In IEEE 802.16.1a[3] (i.e., over WirelessMAN-AAI[5]), AAI-MG-IND may indicate without help of MT-IND in the following cases:

- perform network entry or exit sleep mode

- perform ranging procedure with ranging purpose indication is set to HR multicast service flow update

- receiving multicast traffic

Thus, this document provides the change on the AAI-MG-IND message format in IEEE 802.16.1a[3] (i.e., over WirelessMAN-AAI[5]).

2. References

[1] IEEE 802.16n-10/0048r2, 802.16n System Requirement Document including SARM annex, July 2011.
[2] IEEE 802.16n-11/0024, P802.16n Draft AWD, October 2011.
[3] IEEE 802.16n-11/0025, P802.16.1a Draft AWD, October 2011.
[4] IEEE P802.16Rev3/D2, IEEE Draft Standard for Local and metropolitan area networks; Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems," October 2011.
[5] IEEE P802.16.1^{TM}/D2, [Draft] WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems, October 2011.

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

Note:

The text in **BLACK** color: the existing text in the IEEE 802.16 GRIDMAN AWD

The text in ~~**RED**~~ color: the removal of existing IEEE 802.16 GRIDMAN AWD

The text in **BLUE** color: the new text added to the IEEE 802.16 GRIDMAN AWD

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

[*Remedy: Change the Table 763mc1-AAI-MG-IND message description in 6.2.3.65.49 AAI-MG-IND at page 76 in the 802.16.1a AWD as indicated:*]

Field	Size (bits)	Value/Description	Condition
Indication type	1	0b0: full MGID indication 0b1: MGIND+MTIND indication	
If (Indication type == 0b0) {			
For(i=0; i<Num_MGID;i++){		Num_MGID is the number of multicast group to indicate multicast traffic is transmitting. Range : 0 ~ 32	
Multicast Group ID	12		
Action Code	3	if bit0 = 1, perform network entry or exit sleep mode if bit1 = 1, perform ranging procedure with ranging purpose indication set to 00b1110 if bit2 = 1, receiving multicast	
if (Action Code bit2 == 1) {			
Offset of multicast traffic	4	frame number offset in which the ABS transmits multicast traffic	Shall be present
}			
}			
}Else if(Indication type == 0b1) {			
MGIND bitmap	M(=64)	Indicates whether a corresponding subgroup of multicast group has multicast data to transmit, where the N-th bit of MGIND bitmap [MSB corresponds to N = 0] corresponds to MGIDs in a subgroup (2^{12}×N/M to 2^{12}× (N+1)/M-1) 0: There is no multicast traffic for any of multicast groups in the corresponding multicast subgroup 1: There is multicast traffic for at least one multicast group in the corresponding multicast subgroup	

For (*i*=0; *i*<L; *i*++) {			L equals the number of bits in MGIND bitmap whose bit is set to 1.
Offset of multicast AAI-MT-IND message	2	frame number offset in which the ABS transmits AAI-MT-IND message 0b00: first frame of this superframe 0b01: second frame of this superframe 0b10: third frame of this superframe 0b11: fourth frame of this superframe	Shall be present
}			
}			

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