Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Proposed Change on Ranging Purpose for Multicast Operation over IEEE 802.16.1a**
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Re:	"IEEE 802.16n-11/0020," in response to Call for Comments on GRIDMAN AWD
Abstract	Ranging purpose clarification on GRIDMAN Amendment Draft Standard
Purpose	To discuss and adopt the proposed text in the draft amendment document on GRIDMAN
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Proposed Change on Ranging Purpose for Multicast Operation over IEEE 802.16.1a

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1. Introduction

In IEEE 802.16.1a AWD[3] (i.e., over WirelessMAN-AAI[5]), Ranging is performed to support multicast operation to update multicast service flow.

In addition, ranging may be performed during receiving multicast service by an MS in the following cases:

- location update due to multicast zone change

- multicast security key update

This document provides the change on the ranging procedure (i.e., ranging purpose indication and its related-to parameter).

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[TM]/D2, [Draft] WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems, October 2011.
[6] IEEE C802.16n-11/0177r1, Multicast Key Usage and Update, September 2011.

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

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

[*Remedy: Change Table 684-AAI-RNG-REQ message Field Description in line 1, page 17 (section 6.2.3.1) in the 802.16.1a AWD as follows*:]

Field	Size(bits)	Value/Description	Conditions
Ranging Purpose Indication	4	0b0000 = Initial network entry 0b0001 = HO reentry 0b0010 = Network reentry from idle mode 0b0011 = Idle mode location update 0b0100 = DCR mode extension 0b0101 = Emergency call setup (e.g., E911) 0b0110 = Location update for updating service flow management encodings of E-MBS flows 0b0111 = Location update for transition to DCR mode from idle mode 0b1000 = Reentry from DCR mode, coverage loss or detection of different ABS restart count. 0b1001 = Network reentry from a Legacy BS 0b1010 = Zone switch to MZONE from LZONE 0b1011 = Location update due to power down. 0b1100 = Interference mitigation request to a CSG Femto ABS when experiencing interference from the CSG Femto ABS 0b1101 = NS/EP call setup 0b1110 -0b1111 = reserved 0b1110 = HR multicast service flow update location update 0b1111 = reserved	-
......	...	......	
}else if (Ranging Purpose Indication == 0b1101) {		//NS/EP call setup	
AMS MAC address	48	AMS's real MAC address	
MAC version	8	see 11.1.3	

Initial Offset for uplink power control (OffsetInitial)	5	The bit size represents power level ranging from -15dB (0x00) to 16dB(0x1F) with 1dB step. The value is determined by AMS after successful initial ranging process.	
}else if (Ranging Purpose Indication == 0b1110) {		// HR multicast location update	
action code	3	bit0: multicast service flow update bit1: multicast security key update bit2: location update due to multicast zone change	
} //end of Ranging Purpose Indication			

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