Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Corrections for UL Channel Sounding Allocations**
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Re:	IEEE P802.16e-2005 and IEEE P802.16-2004 In response to call for maintenance change request (IEEE 802.16maint-06/018) issued on 2006-06-16.
Abstract	Corrections and clarifications to UL channel sounding allocations
Purpose	Adopt changes
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Corrections for UL Channel Sounding Allocations

Intel, Motorola, Samsung, ArrayComm, Beceem, Alcatel, Fujitsu

Background

The behavior of UL SZ allocations is unclear and not completely defined. Specifically:

1) It is not clear that a SZ must be allocated an entire UL OFDMA symbol.
2) Restrictions on the location of the SZ must be made to avoid breaking the UL tile structure.
3) A SZ shift value is required for use by the UL_Sounding_Command_IE().

Proposed Clarification

1) Clarify that a SZ must be allocated an entire UL OFDMA symbol and restrict the PAPR_Reduction_and_Safty_Sounding_Zone_Allocation_IE() accordingly.
2) Clarify that a SZ must occupy the last symbol(s) of a permutation zone.
3) Define a SZ shift value (u) used in the UL_Sounding_Command_IE().

[Add the following text and modify table 289 and text on page 431 as follows]:

When a UIUC 13 allocation is used to define a Sounding Zone, it shall occupy one or more entire OFDMA symbol(s) and be located in the last symbol(s) of a permutation zone.

Table 289—PAPR reduction, and safety zone, and sounding zone allocation IE format

PAPR_Reduction_and_Safty_Sounding_Zone_Allocation_IE() {	-	-
OFDMA symbol offset	8 bits	-
Subchannel offset	7 bits	Not used for Sounding Zone
No. OFDMA symbols	7 bits	-
No. subchannels/SZ Shift Value	7 bits	No. Subchannels for PAPR reduction/safety zone. Shift value (u) for Sounding Zone
PAPR Reduction/Safety Zone	1 bit	0 = PAPR reduction allocation 1 = Safety zone allocation
Sounding Zone	1 bit	0 = PAPR/Safety Zone 1 = Sounding Zone Allocation
Reserved	1 bit	Shall be set to zero
}		

Subchannel offset
The lowest index subchannel that are used for carrying the PAPR-reduction/safety-zone, starting from subchannel 0. For Sounding Zone allocations this field is unused and its value shall be set to zero.

Number of subchannels/SZ Shift Value
The number of subchannels with subsequent indexes that are used for the PAPR reduction/safety-zone. For Sounding Zone allocations this field defines the shift value (u)used for decimation offset and cyclic shift index.