Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**MIMO_DL_Basic_IE() and MIMO_DL_Enahnce_IE() format corrections**
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Re:	IEEE 802.16-2004
Abstract	In IEEE802.16-2004, MIMO_DL_Basic_IE() and MIMO_DL_Enhanced_IE() use the different bit size from DL_Basic_IE() in the fields of OFDMA Symbol offset, Subchannel offset, No. OFDMA Symbols and No. subchannels. They should be the same number.
Purpose	To incorporate the changes here proposed into the 802.16-2004 errata
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MIMO_DL_Basic_IE() and MIMO_DL_Enahnce_IE() format corrections

1 Background

In IEEE802.16-2004, MIMO_DL_Basic_IE() and MIMO_DL_Enhanced_IE() use the different bit size from DL_Basic_IE() in the fields of OFDMA Symbol offset, Subchannel offset, No. OFDMA Symbols and No. subchannels. They should be the same number.

2 Specific text changes

---------Start text proposal-------

Modify the Table 281 in section 8.4.5.3.8 on page 529

Table 281 - MIMO DL basic IE format

Syntax	Size	Notes
MIMO_DL_Basic_IE () {		
Extended DIUC	4 bits	MIMO = 0x05
Length	4 bits	Length of the message in bytes (variable)
Num_Region	4 bits	
For (i = 0; i< Num_Region; i++) {		
OFDMA Symbol offset	~~10~~ 8 bits	
Subchannel offset	~~5~~ 6 bits	
Boosting	3 bits	
No. OFDMA Symbols	~~9~~ 7 bits	
No. subchannels	~~5~~ 6 bits	

Matrix_indicator	2 bits	STC matrix (see 8.4.8.1.4.)
		Transmit_diversity = transmit diversity mode indicated in the latest TD_Zone_IE().
		If (Transmit_Diversity == 0b01)
		{
		00 = Matrix A
		01 = Matrix B
		10 -11 = Reserved
		}
		elseif(Transmit_Diversity == 0b10){
		00 = Matrix A
		01 = Matrix B
		10 = Matrix C
		11 = Reserved
		}

Num_layer	2 bits	
for (j = 0; j< Num_layer; j++) {		
if (INC_CID == 1) {		
CID	16 bits	
}		
Layer_index	2 bits	
DIUC	4 bits	
}		
Padding nibble, if needed		Completing to nearest byte, shall be set to 0
}		

Modify the Table 281 in section 8.4.5.3.8 on page 529

Table 282 - MIMO DL enhanced IE format

Syntax	Size	Notes
MIMO_DL_Enhnaced_IE () {		
Extended DIUC	4 bits	EN_MIMO = 0x06
Length	4 bits	Length of the message in bytes (variable)
Num_Region	4 bits	
For (i = 0; i< Num_Region; i++) {		
OFDMA Symbol offset	~~10~~ 8 bits	
Subchannel offset	~~5~~ 6 bits	
Boosting	3 bits	
No. OFDMA Symbols	~~9~~ 7 bits	
No. subchannels	~~5~~ 6 bits	

Matrix_indicator	2 bits	STC matrix (see 8.4.8.1.4.)
		Transmit_diversity = transmit diversity mode indicated in the latest TD_Zone_IE().
		If (Transmit_Diversity == 0b01)
		{
		00 = Matrix A
		01 = Matrix B
		10 -11 = Reserved
		}
		elseif(Transmit_Diversity == 0b10){
		00 = Matrix A
		01 = Matrix B
		10 = Matrix C
		11 = Reserved
		}

Num_layer	2 bits	
for (j = 0; j< Num_layer; j++) {		
if (INC_CID == 1) {		
CQICID	*variable*	Index to uniquely identify the CQICH resource assigned to the SS. The size of this field is dependent on system parameter defined in DCD
}		
Layer_index	2 bits	
DIUC	4 bits	
}		
Padding nibble, if needed		Completing to nearest byte, shall be set to 0
}		

---------End text proposal-------