

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >
Title	Changes to DL-MAP-IE and UL-MAP-IE to Support AMC Subchannel in OFDMA PHY
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Re:	Response to IEEE 802.16-04/23 (Recirculation Ballot #14b Announcement)
Abstract	This document suggests changes in TGe Draft Document IEEE 802.16e-D3 to provide an optional mechanism to indicate different burst profile within one DL/UL-MAP-IE for AMC subchannel configuration in OFDMA PHY.
Purpose	Adopt into the current TGe working draft
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Changes to DL-MAP-IE and UL-MAP-IE to Support AMC Subchannel in OFDMA PHY

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1. Motivation

This document suggests changes to TGe Draft Document IEEE 802.16e-D3 to provide an optional mechanism to indicate different burst profiles within one DL/UL-MAP-IE for AMC subchannel configuration in OFDMA PHY.

As specified in 8.4.6.3 of TGd Draft Document IEEE 802.16d-D5, the AMC subchannel configuration is used as an option in the OFDMA subchannel construction. Given the AMC subchannel configuration, a specific burst profile may enable efficient utilization of a particular subchannel. The proposed option makes it possible to specify different burst profiles within one DL-MAP-IE or UL-MAP-IE.

2. Specific Changes Suggested to TGe Draft Document IEEE P802.16e-D3

[Insert the following after 8.4.5.3.11 in the baseline document]

8.4.5.3.12 AMC-DL-MAP-IE

In the DL-MAP, a BS may transmit $DIUC = 15$ with the AMC-DL-MAP-IE() to indicate a DL-MAP allocation for a connection with different DIUCs.

Table 285 – AMC-DL-MAP-IE Message Format

Syntax	Size	Notes
AMC-DL-MAP-IE() {		
Extended DIUC	4 bits	AMC-DL-MAP = 0x05
Length	8 bits	Length in bytes of the following field
AMC region information {	Variable	
if (INC_CID == 1) {		The DL-MAP starts with INC_CID = 0. INC_CID is toggled between 0 and 1 by the CID-SWITCH_IE() (8.4.5.3.7)
N_CID	8 bits	Number of CIDs assigned for this IE
for (n=0; n<N_CID; n++) {		
CID	16 bits	
}		
}		
OFDMA symbol offset	10 bits	
Subchannel offset	5 bits	
Boosting	3 bits	
No. OFDMA symbols	9 bits	
No. Subchannels	5 bits	
for (n = 0; n < No. Subchannels; n++) {		
DIUC	4 bits	
}		
}		
}		

[Insert the following after 8.4.5.4.16 on Page 78]

8.4.5.4.3.17 AMC-UL-MAP-IE

In the UL-MAP, a BS may transmit UIUC = 15 with the AMC-UL-MAP-IE() to indicate a UL-MAP allocation for a connection with different UIUCs.

Table xxx – AMC-UL-MAP-IE Message Format

Syntax	Size	Notes
AMC-UL-MAP-IE() {		
Extended UIUC	4 bits	AMC-UL-MAP = 0x04
Length	8 bits	Length in bytes of the following field
AMC region information {	Variable	
OFDMA symbol offset	10 bits	
Subchannel offset	5 bits	
Boosting	3 bits	
No. OFDMA symbols	9 bits	
No. Subchannels	5 bits	
for (n = 0; n < No. Subchannels; n++) {		
UIUC	4 bits	
}		
}		
}		