

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >		
Title	Modifications to UL map in OFDM mode and related issues		
Date Submitted	2003-11-13		
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Re:	IEEE 802.16-REVd Ballot		
Abstract			
Purpose	Material for resolution of comment XXX in LB13		
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Changes to the UL_MAP_IE and related issues

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Introduction

The following contribution proposes several changes to the UL_MAP_IE() for the OFDM case. The new format integrates the subchannelization parameters into the map element in a uniform manner. The status of the subchannelization remains *optional*, and the BS is notified on the capability of the SS using SBC messages.

Additionally the partitioning of the map into the subchannelized and non subchannelized areas is removed and the subchannelization_IE() is deleted.

Modified Text

Subcarrier allocation table

Modify as illustrated in the figure below:

	<u>Subchannel Index:</u>		<u>Allocated Frequency offset indices of carriers:</u>
<div style="background-color: yellow; width: 100px; height: 100px; display: inline-block; vertical-align: middle;"></div> 0b10000	0b01000: {	0b00010: {	0b00001: { -100:-98, -37:-35, 1:3, 64:66 } {-38}
		0b00011: {	0b00011: { -97:-95, -34:-32, 4:6, 67:69 } {-38}
		0b00101: {	0b00101: { -94:-92, -31:-29, 7:9, 70:72 } {-38}
		0b00110: {	0b00110: { -91:-89, -28:-26, 10:12, 73:75 } {-38}
		0b01010: {	0b01001: { -87:-85, -50:-48, 14:16, 51:53 } {-88}
		0b01100: {	0b01011: { -84:-82, -47:-45, 17:19, 54:56 } {-88}
	0b11000: {	0b01110: {	0b01101: { -81:-79, -44:-42, 20:22, 57:59 } {-63}
		0b10010: {	0b01111: { -78:-76, -41:-39, 23:25, 60:62 } {-63}
		0b10100: {	0b10001: { -75:-73, -12:-10, 26:28, 89:91 } {-13}
		0b10110: {	0b10011: { -72:-70, -9:-7, 29:31, 92:94 } {-13}
		0b11010: {	0b10101: { -69:-67, -6:-4, 32:34, 95:97 } {-38}
		0b11100: {	0b10111: { -66:-64, -3:-1, 35:37, 98:100 } {-38}
		0b11001: {	0b11001: { -62:-60, -25:-23, 39:41, 76:78 } {-63}
		0b11011: {	0b11011: { -59:-57, -22:-20, 42:44, 79:81 } {-63}
	0b11101: {	0b11101: { -56:-54, -19:-17, 45:47, 82:84 } {-63}	

The use of channel index 0b10000 implies that no subchannelization is employed. The use of all other subchannel indices in table 213 implies that subchannelization is employed.

8.4.5.3.1 UIUC Allocations

Change Burst profile 5 Subchannelization network entry IE
Change Burst profiles to 6-12

UL-MAP IE format

[delete the added text:]

~~When sub-channelization is active, UIUCs 1 and 3 shall not be used.~~

[modify the table (by deleting conditioning on subchannelization) to the form shown below:]

Table 1: OFDM UL-MAP information element format

Syntax	Size	Notes
UL-MAP_information_element() {		
CID	16 bits	
UIUC	4bits	
Start Time	11 bits	
Subchannel Index	5 bits	
if (UIUC == 4)		
Focused_contention_IE()	16 bits	
if (UIUC == 5)		
Subchannelized_Network_entry_IE()	12 bits	
if (UIUC == 15)		
Extended UIUC dependent IE	Variable	AAS_UL_IE()
Duration	10 bits	
Midamble Present	2 bits	0b00 = Preamble only 0b01 = Midambles after every 8 data symbols 0b10 = Midambles after every 16 data symbols 0b11 = Midambles after every 32 data symbols
Padding nibble	0/4 bits	Shall be set to 0x0
}		

[delete the IE_Subchannelization section 8.4.5.3.5 UL-MAP subchannelization IE format]