Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**	
Title	**Changes to UL-MAP ordering in OFDM-256 PHY**	
Date Submitted	**2004-03-12**	
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Re:	Supporting document for Sponsor Ballot	
Abstract	Changes required for more efficient encode and decode of UL-MAPs in OFDM PHY.	
Purpose	The document is intended for consideration within comments resolution process.	
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Changes to UL-MAP ordering in OFDM-256 PHY

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March 2004

References

1. IEEE, "Draft IEEE Standard for Local and metropolitan area networks Part 16: Air Interface for Fixed Broadband Wireless Access Systems," IEEE P802.16-REVd/D3-2004.

Introduction

The changes proposed in this document are to modify the ordering of the UL-MAP elements for the OFDM Physical Layer of IEEE P802.16-REVd [1].

The change involves a re-ordering of the elements in the UL-MAP to reduce the number of parameters that straddle 8 bit or 16-bit boundaries: this will simplify any DSP based implementation of the encoding or decoding of the UL-MAP, thus assisting both BS and SS implementations.

Text Changes

Page 432, Line 53 Change

Table 210—OFDM UL-MAP IE format

Syntax	Size	Notes
UL-MAP_IE() {		
CID	16 bits	
UIUC	4 bits	
Start Time	11 bits	
Subchannel Index	5 bits	
if (UIUC == 4)		
Focused_Contention_IE()	16 bits	
if (UIUC == 13)		
Subchannelized_Network_Entry_IE()	12 bits	
if (UIUC == 15)		
Extended UIUC dependent IE	variable	See clauses following 8.3.5.3.4
Duration	10 bits	in OFDM symbols

Midamble Present	2 bits	0b00: Preamble only 0b01: Midamble after every 8 data symbols 0b10: Midamble after every 16 data symbols 0b11: Midamble after every 32 data symbols
Padding nibble, if needed	4 bits	Completing to nearest byte, Shall be set to 0x0
}		

to

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}		