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			
Source(s)	Shawn Taylor Wi-LAN	Voice:	+972-54-225549	
	Tal Kaitz, Naftali Chayat, Vladimir Yanover Alvarion	Fax: mailto: Naftali.Ch	Fax: +972-3-6456290 mailto: Naftali.Chayat@alvarion.com	
	John Dring, Intel			
Re:	IEEE 802.16-REVd Ballot			
Abstract				
Purpose	Material for resolution of comment XXX in LB13			
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.			
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.			
Patent	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures			
Policy and	http://ieee802.org/16/ipr/patents/policy.html , including the statement "IEEE standards may include the larger provided the IEEE receives assurance from			
Procedures	the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and			
	optional portions of the standard." Early disclosure to the Working Group of patent information that			
	might be relevant to the standard is essential to reduce the possibility for delays in the development			
	process and increase the likelihood that the draft publication will be approved for publication. Please			

notify the Chair <mailto:chair@wirelessman.org> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site http://ieee802.org/16/ipr/patents/notices.

Changes to the UL_MAP_IE and related issues

Lei Wang, Ron Murias, Shawn Taylor (WiLAN), Tal Kaitz, Naftali Chayat, Vladimir Yanover (Alvarion) John Dring, (Intel)

Introduction

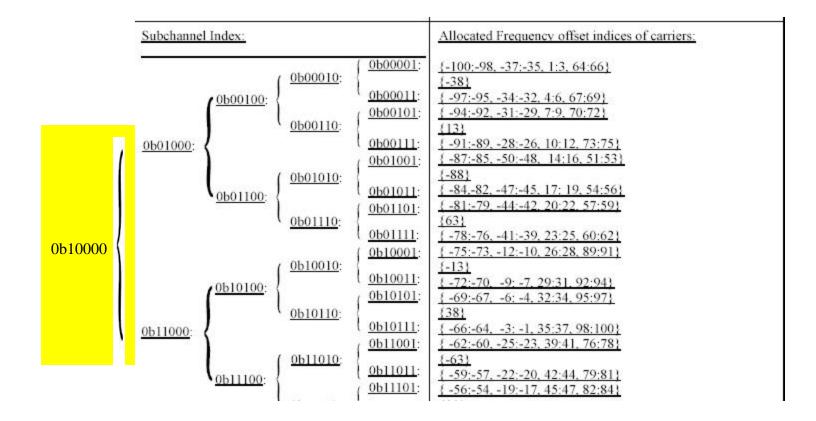
The following contribution proposes several changes to the UL_MAP_IE() for the OFDM case. The new format integrates the subchannelization parameters into the map element in a uniform manner. The status of the subchannelization remains *optional*, and the BS is notified on the capability of the SS using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

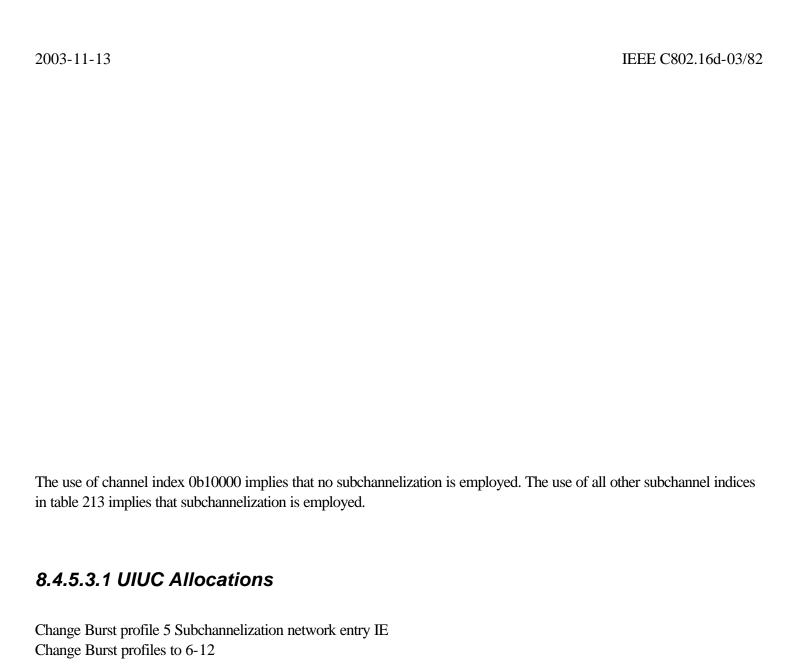
Additionally the partitioning of the map into the subchannelized and non subchannelized areas is removed and the subchannelization_IE() is deleted.

Modified Text

Subcarrier allocation table

Modify as illustrated in the figure below:





UL-MAP IE format

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:]

3

[delete the added text:]

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		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]