Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**PHY Mode ID**
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Re:	IEEE P802.16e/D4-2004
Abstract	In this contribution, we proposed a new PHY Mode ID field to be included in the NBR-ADV message. This field contains phy information which can be useful to shorten the scanning and HO process time with respect to DL channel synchronization.
Purpose	
Notice	
Release	
Patent Policy and Procedures	

PHY Mode ID

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1. Motivation

In this contribution, we proposed a new PHY Mode ID field to be included in the NBR-ADV message. This field contains phy information which can be useful to shorten the scanning and HO process time with respect to DL channel synchronization.

2. Changes summary

[Modify Table 106d as the following]

Syntax	Size	Notes
MOB_NBR-ADV_Message Format(){		
Management Message Type =49	8 bits	
Operator ID	24 bits	Unique ID assigned to the operator
Configuration Change Count	8 bits	Change count for this message
N_NEIGHBORS	8 bits	The count of the unique combination of Neighbor BS ID and Preamble Index and DCD
For (j=0; j< N_NEIGHBORS; j++){		

Length	8 bits	Length of message information within N_NEIGHBORS loop in bytes
Neighbor BS ID	24 bits	TBD
~~Preamble Index~~	~~8 bits~~	~~SCa and OFDMA PHY specific only~~
PHY ~~Profile~~ Mode ID	24 ~~16~~ bits	~~TBD~~ Phy parameters list as specified in table xxx.
Preamble Index	8 bits	SCa and OFDMA PHY specific only
HO Process Optimization	8 bits	
DCD Configuration Change Count	8 bits	This represents the Neighbor BS current DCD configuration change count
UCD Configuration Change Count	8 bits	This represents the Neighbor BS current UCD configuration change count
TLV Encoded Neighbor information	*variable*	TLV specific
}		
}		

[Add the following description of PHY Mode ID below Table 92d]

Item	Size	Notes
Bandwidth	8 bits	Channel BW in units of 125Khz.
FFT Size	5bits	0b00000: 202448 0b00001: 1024 0b00010: 512 0b00011: Reserved 0b00100: 128 0b11111 – 0b00101: reserved for future FFT size use.
Reserved	3 bit	Reserved
Cycle prefix (CP)	2 bits	00 = 1/4 01 = 1/8 10 = 1/16 11 = 1/32
Cell Reuse Configuration	2bit	00 = Unsynchronized 01 = Time synchronization. 10 = Time and Frequency synchronization.
Frame duration code	4 bits	0000 = 2.5 ms

		0001 = 4 ms **0010 = 5 ms** **0011 = 8 ms** **0100 = 10 ms** **0101 = 12.5 ms** **0110 = 20 ms** **1111-0111 = reserved**

Table xxx – Phy Mode ID fields description