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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	
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## 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
<del>Preamble Index</del>	<del>8 bits</del>	<del>SCa and OFDMA PHY specific only</del>
PHY <del>Profile</del> Mode ID	24 <del>16</del> bits	<del>TBD</del> <a href="#">Phy parameters list as specified in table xxx.</a>
<del>Preamble Index</del>	<del>8 bits</del>	<del>SCa and OFDMA PHY specific only</del>
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	<i>variable</i>	TLV specific
}		
}		

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

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

		<u>0001 = 4 ms</u> <u>0010 = 5 ms</u> <u>0011 = 8 ms</u> <u>0100 = 10 ms</u> <u>0101 = 12.5 ms</u> <u>0110 = 20 ms</u> <u>1111-0111 = reserved</u>
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Table xxx – Phy Mode ID fields description