IEEE P802.11  
Wireless LANs

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| 802.11 TGac WG Letter Ballot LB190  LB190 MAC comment resolutions | | | | |
| Date: 2012-11-05 | | | | |
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Abstract

The document provides the comment resolution for the CIDs: 7204, 7206.

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| 7204 | 98.11 | 8.4.2.160 | The describition for TXOP Power Save Mode for a non-AP STA sounds like it reports its current operating mode. Is the expectation that the STA changes is its TXOP Power Save behavior after association? If so, how does this get signaled to the AP (I don't see any description for this)? It is not clear to me that this is even necessary (signaling operating mode). | Make the VHT TXOP PS field indicate a capability not a mode of operation. Change definition to "Indicates support for VHT TXOP Power Save. Change the encoding to "Set to 0 if not supported. Set to 1 if supported." |

# CID 7204

**Proposed resolution: REVISED. See the discussion in doc.: IEEE 802.11-12/1422r0**

**Discussion:**

As pointed out by the commenter, the STA is not supposed to change the support for VHT TXOP PS after association with AP. The proposed resolution for the comment clarifies it as support for feature for the duration of association rather than the mode of operation. For AP, it is reasonable to indicate whether it supports the TXOP power save in a BSS or not. However, at the STA, the operation of TXOP power save is discussed in terms of TXOP power save mode. Hence, it is better to indicate that whether the STA supports the operation in TXOP power save mode or not.

**Proposed Text Change (P98, L11):**

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| **Subfield** | **Definition** | **Encoding** |
| VHT TXOP PS | Indicates whether or not the AP  supports VHT TXOP Power  Save in BSS. or whether or not  the non-AP STA supports the operation in  TXOP Power Save mode. | When transmitted by a VHT AP:  Set to 0 if the VHT AP does not support  VHT TXOP Power Save in the BSS.  Set to 1 if the VHT AP supports TXOP  Power Save in the BSS.  When transmitted by a non-AP VHT STA:  Set to 0 when the VHT STA does not support the operation in  TXOP Power Save mode.  Set to 1 when the VHT STA supports operation in TXOP Power Save mode. |

# CID 7206

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| 7206 | 174.38 | 10.2.1.4a | This section should describe when and how the VHT TXOP Power Save field in the VHT Capabilities element is set for both a STA and an AP. | Describe when and how the VHT TXOP Power Save field is set |

**Proposed Resolution: ACCEPTED. See the discussion in doc.: IEEE 802.11-12/1422r0**

**Discussion:**

The section must specify the operation of VHT TXOP Power save mechanism as well as the value of VHT TXOP PS in the VHT capabilities with reference to the dot11VHTTXOPPowerSaveOptionImplemented that the STA is aware of.

**Proposed Change (P174, L38):**

*Add the following sentence at the beginning of the section 10.2.1.4a*

A VHT STA shall set the VHT TXOP PS field in the VHT Capabilities element to 1 if dot11VHTTXOPPowerSaveOptionImplemented is true, otherwise it shall set it to 0. A VHT AP supports the operation of non-AP VHT STAs in TXOP power save mode in a BSS when the dot11VHTTXOPPowerSaveOptionImplemented at the AP is true. Non-AP VHT STAs that are in Active mode (see Table 10-1 (Power Management modes)) and have dot11VHTTXOPPowerSaveOptionImplemented equal to true operate in TXOP power save mode. A VHT AP may allow non-AP VHT STAs in TXOP power save mode to enter the Doze state during a TXOP. A VHT AP shall indicate this by transmitting a VHT PPDU with the TXVECTOR parameter TXOP\_PS\_NOT\_ALLOWED set to 0. The value of this parameter in the TXVECTOR of all VHT PPDUs transmitted by the VHT AP may be changed from 1 to 0 during the TXOP to enable TXOP PS for the remainder of the TXOP. The value of this parameter in the TXVECTOR of all VHT PPDUs transmitted by VHT AP shall not be changed from 0 to 1 during the TXOP. If the dot11VHTTXOPPowerSaveOptionImplemented at VHT AP is false then the VHT AP shall set the TXOP\_PS\_NOT\_ALLOWED to 1 in the TXVECTOR of the frames with FORMAT VHT.

# References

1. IEEE Draft P802.11ac\_D4.0
2. IEEE 11-12-1277-01-00ac-lb190-comments-tgac-d4-0.xls