IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Comment Resolution on MU Operation | | | | |
| Date: 2019-07-09 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Lochan Verma | Qualcomm |  |  | lverma@qti.qualcomm.com |
|  |  |  |  |  |

Abstract

This submission shows

* Resolution for a comment received from TGax comment collection (TGax Draft D4.0)
* The proposed changes are based on 11ax D4.2.

The submission provides resolutions to comments related to MU operation.

* The submission provides resolutions to 4 CIDs:   
  20835, 20865, 20866, 20867

Revisions:

* Rev 0: Initial version of the document.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 20835 | 330.01 | "The UL Packet Extension subfield is set to the default PE duration value, which is indicated by the AP in the Default PE Duration subfield of the HE Operation element it transmits" -- makes no sense, since the Default PE Duration is a duration from 0 to 16 us but the UL Packet Extension subfield from D3.0 is the PFPF (a.k.a. "a") and a PE disambiguity indication | At the referenced location change "The UL Packet Extension subfield is set to the default PE duration value, which is indicated by the AP in the Default PE Duration subfield of the HE Operation element it transmits and the pre- FEC padding factor is set to 4" to "The Pre- FEC Padding Factor field is set to indicate a pre-FEC padding factor of 4" and follow with a bullet "The PE Disambiguity field is set to 0." | Accept—  There is room for improvement in description of Pre-FEC padding factor and PE Disambiguity fields when an AP transmits one or more Trigger frames in one or more A-MPDUs and frames carrying a TRS Control subfield in one or more other A-MPDUs in an HE MU PPDU. |

***Discussion***

In 9.4.2.243 (HE Operation Element), The Default PE Duration subfield indicates the PE field duration in units of 4 μs for an HE TB PPDU that is solicited with a TRS Control subfield and its use is defined in 26.5.2.3 (Non-AP STA behavior for UL MU operation). Values 5-7 of the Default PE Duration subfield are reserved.

In 26.5.2.2.4 (Allowed settings of the Trigger frame fields and TRS Control subfield):

…

In the Common Info field of the Trigger frames:

…

* The Pre-FEC Padding Factor subfield(#20834) is set to the default PE duration value, which is indicated by the AP in the Default PE Duration subfield of the HE Operation element it transmits and the pre-FEC padding factor is set to 4

…

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 20865 | 332.06 | TXVECTOR parameter HE\_LTF\_MODE is "Present for full bandwidth MU-MIMO not using 1x HE-LTF and not present otherwise." | In 26.5.3.3.3 change "The HE\_LTF\_MODE parameter is set to the value indicated by the MU-MIMO LTF Mode subfield of the Common Info field of the Trigger frame." to "The HE\_LTF\_MODE parameter is set to the value indicated by the MU-MIMO LTF Mode subfield of the Common Info field of the Trigger frame if the HE\_LTF\_TYPE parameter does not indicate 1x HE-LTF and the Trigger frame indicated full bandwidth MU-MIMO." In 26.5.3.3.4 change "The HE\_LTF\_MODE, STBC, and NUM\_STS parameters are set to 0" to "The STBC and NUM\_STS parameters are set to 0" | Revised—  The first part of the proposed change is acceptable because of the following rule   * If the 1x HE-LTF is used for non-OFDMA UL MU-MIMO, no pilot HE-LTF mode is used.   The second part of the proposed change is incorrect because HE\_LTF\_MODE is set to single stream pilots in TXVECTOR parameters for HE TB PPDU response to TRS Control subfield.  TGax Editor: make changes for CID 20865 according to 11-19-1186-00-00ax. |
| 20866 | 332.06 | Not all TXVECTOR parameters are always present (e.g. HE\_LTF\_MODE is only present for full-BW MU-MIMO not using 1x HE-LTF) | Add caveats to the TXVECTOR parameters that are not always present | Revised—  Refer to resolution of CID20865 |
| 20867 | 335.58 | Not all TXVECTOR parameters are always present (e.g. HE\_LTF\_MODE is only present for full-BW MU-MIMO not using 1x HE-LTF) | Add caveats to the TXVECTOR parameters that are not always present | Revised—  Refer to resolution of CID20865 |

***------------- Begin Text Changes ---------------***

***To TGax editor:*** *Please make the redline change below on Pg/Ln: 336/13 (TXVECTOR parameters for HE TB PPDU response to Trigger frame)*

The HE\_LTF\_MODE parameter is set to the value indicated by the MU-MIMO LTF Mode subfield of the Common Info field of the Trigger frame if the HE\_LTF\_TYPE parameter does not indicate 1x HE-LTF and the Trigger frame indicated full bandwidth MU-MIMO.