IEEE P802.11  
Wireless LANs

|  |
| --- |
| **CIDs for:**  **Trigger Frame Format Comment Resolution – Type Dependent Per user information section 9.3.1.23** |
| **Date:** 2016-05-18 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Raja Banerjea | Qualcomm | 1700 Technology Drive, San Jose, CA | +1.408.4897129 | [rajab@qca.qualcomm.com](mailto:rajab@qca.qualcomm.com) |
| Merlin Simone |  |  |  |  |
| Alfred Asterjadhi |  |  |  |  |
| George Cherian |  |  |  |  |

Revision

1: Original document

2: Updated with comment from Alfred, added text for TID Aggregation limit, added Table header and footer.

3. Updated based on feedback from Chittbrata Ghosh on text for TID Aggregation Limit. Moved normative portion of text to section 25

4. Changes based on feedback during IEEE 802.11 call on 6/16/16. Changes include removed CID 2692,

Abstract

This submission proposes resolutions for multiple comments related to TGax D0.1 with the following CIDs

* 9, 228
* 2219,2422, 2691,2900

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGax Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGax Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGax Editor: Editing instructions preceded by “TGax Editor” are instructions to the TGax editor to modify existing material in the TGax draft. As a result of adopting the changes, the TGax editor will execute the instructions rather than copy them to the TGax Draft.***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **PP.LL** | | **Comment** | **Proposed Change** | | **Resolution** |
| 9 | Ahmadreza Hedayat | 21.15 | The Beamforming Report Poll Trigger variant is not described in 9.3.1.23. | | | As in the comment. | Revised.  Document 11-16/0646r1 and motion in May 2016 meeting resolution accepted below. |
| 228 | Alfred Asterjadhi | 39.16 | The format for the BRP variant of the Trigger frame is undefined. Specify the format of this Trigger frame (as simple as adding the Feedback Segment Retransmisson Bitmap in the per user info field). | | | As in comment. | Revised.  Document 11-16/0646r1 and motion in May 2016 meeting resolution accepted below. |

**TGax Editor: *Add the subclause below as resolution to (#CID 9, 228):***

## 9.3.1.23.x Beamforming Report Poll Trigger

If the Trigger frame is of Type Beamforming Report Poll Trigger, the type dependent Per User Information is the Feedback Segment Retransmission Bitmap. The Type dependent Common Info field length is 0.



**FIG-xxx Type dependent per user information field for Beamforming Report Poll Trigger**

The Feedback Segment Retransmission Bitmap field indicates the requested feedback segments of a HE Compressed Beamforming report. If the bit in position n (n=0 for LSB and n=7 for MSB) is 1, then the feedback segment with the Remaining Feedback Segments subfield in the HE MIMO Control field equal to n is requested. If the bit in position n is 0, then the feedback segment with the Remaining Feedback Segments subfield in the HE MIMO Control field equal to n is not requested.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 2219 | Tomoko Adachi | 19.37 | As there is no explanation for the Basic Trigger and the Beamforming Report Poll Trigger, does it mean that these two don't have Trigger Dependent Common info and Trigger Dependent Per User Info fields? | If so, clarify in that in the text. | Revised.  Text added based on document 11-16/645r0, 16/0667 and motion passed in IEEE 802.11 May meeting. |
| 2422 | Yongho Seok | 21.14 | When the Trigger Type field value is set to 0 (Basic Trigger), the type-specific Common Info and type-specific Per User Info are not present. Please specify an absence of the type-specific Common Info and type-specific Per User Info in the Basic Trigger. | As per comment | Revised.  The type specific Common information is not present for the basic variant of the trigger type.However the per user information is present.  Text added based on document 11-16/645r0, 16/0667 and motion passed in IEEE 802.11 May meeting. |
| 2691 | Yuichi Morioka | 21.14 | Usage of Basic Trigger is not defined. | Add description of Basic Trigger | Revised.  Text added based on document 11-16/645r0, 16/0667 and motion passed in IEEE 802.11 May meeting. |
| 2900 | Zhou Lan | 19.49 | trigger fame contains type specific info which can be achieved by aggregating trigger frame and control frame. | remove type specific info and simplify the trigger frame design otherwise clarify the benefits of this mechanism over aggregating trigger and control/Management frame | Rejected  This is asking to remove type specific info from the trigger frame. Aggregating leads to overhead, and would not allow the Trigger frame to be sent in legacy format. |

**TGax Editor: *Add the subclause below as resolution to (#CID 2219):***

## 9.3.1.23.1 Basic Trigger

If the Trigger frame is of Type Basic Trigger, the type dependent Per User Information includes the MPDU MU Spacing Factor and TID Aggregation Limit. The Type dependent Common Info field length is 0.The format of the type dependent Per User Information is shown below:



**FIG-xxx Type dependent per user information field for Basic trigger frame**

MPDU MU Spacing Factor is the value the Minimum MPDU Start spacifing defined in Table 8-159 is multiplied with. The definition of the MPDU MU Spacing Factor is in Table -xx

**Table-xx MPDU MU Spacing Factor**

|  |  |
| --- | --- |
| **Value** | **Definition** |
| 00 | Multiplier = 1 |
| 01 | Multiplier = 2 |
| 10 | Multiplier = 4 |
| 11 | Multiplier = 8 |

The TID Aggregation limit is the maximum number of TIDs – 1 that can be aggregated by a STA in a multi-TID A-MPDU carried in the responding Trigger-based PPDU.

**TGax Editor: *Add the text below to section 25.5.2.2.2:***

The responding STA shall not aggregate QoS Data frames in the multi-TID A-MPDU with a number of TIDs that exceeds the value indicated in the (TID Aggregation limit +1) subfield in the Type Dependent Per User Info field of a basic variant Trigger frame (9.3.1.23.1 Basic Trigger) intended to it.