IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 11ax D6.0 comment resolution 9.7.3 | | | | |
| Date: 2020-03-28 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Liwen Chu | NXP |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This submission proposes resolutions for multiple comments related to TGax D6.0 with the following CIDs:

* 24004, 24085, 24086, 24087, 24088, 24468, 24509, 24510.

Revisions:

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** | **PP** | **LL** | **Comment** | **Proposed Change** | **Resolution** |
| 24004 | 245 | 30 | The MU-BAR variant of Trigger frames should be listed as a possible Trigger MPDU | Replace "One or more Basic Trigger" with "A MU-BAR Trigger frame, or one or more Basic Trigger" | **Rejected**  **Discussion:**  **802.11 baseline specification doesn’t allow BAR to be aggregated in an A-MPDU with QoS Data frames. 802.11 ax follows the same restriction: MU-BAR that is the combination of BAR and trigger will not be aggregated in A-MPDU with QoS Data frames.**  **When the QoS Data frames want the acknowlwdgement, the Ack Policy HTP Ack or Implicit BAR can be used. With HTP Ack, MU-BAR is not neded to be aggregated with the QoS Data frames in an A-MPDU.** |
| 24085 | 237 | 26 | For the Trigger frame in Table 9-531, it says "The Trigger frames are the first MPDUs of the A-MPDU unless the A-MPDU also carries an Ack or BlockAck frame in which case the Trigger frames are included immediately after the Ack or BlockAck frame." This means, when multiple Trigger frames are present in the A-MPDU, all of them has to be located first or just after Ack/BlockAck if that is present. The intent should be, at least one Trigger frame is located first or just after Ack/BlockAck. | Change it to read "At least one Trigger frame is the first MPDU of the A-MPDU unless the A-MPDU also carries an Ack or BlockAck frame in which case the Trigger frame is included immediately after the Ack or BlockAck frame." | Rejected  Discussion: Originally in 802.11ax draft, when multiple trigger frames are aggregated in an A-MPDU, only one Trigger frame is at the beginning of the A-MPDU. The locations of the other trigger frames are not restricted. However this arrangement makes the trigger frame padding complicated. As an example the trigger padding for LDPC coding is still not settled down. |
| 24086 | 237 | 33 | Other tables including a Trigger frame allow to have multiple copies of the Trigger frame. There is no reason to restrict it for Table 9-531. So does the condition to allow aggregating BSRP and BQRP Trigger frames apply for this. | Copy NOTE 2 and NOTE 3 from Table 9-532a and paste them in Table 9-531 as NOTE 1 and NOTE 2 (renumber). Add "See NOTE 1 and NOTE 2." at the end of the Conditions column of the Trigger frame. | Accepted |
| 24087 | 241 | 44 | For the Trigger frame In Table 9-532b, it says "The Trigger frames are the first MPDUs of the A-MPDU unless the A-MPDU also carries an Ack or BlockAck frame in which case the Trigger frames are included immediately after the Ack or BlockAck frame." This means, when multiple Trigger frames are present in the A-MPDU, all of them has to be located first or just after Ack/BlockAck if that is present. The intent should be, at least one Trigger frame is located first or just after Ack/BlockAck. | Change it to read "At least one Trigger frame is the first MPDU of the A-MPDU unless the A-MPDU also carries an Ack or BlockAck frame in which case the Trigger frame is included immediately after the Ack or BlockAck frame." | Rejected  Discussion: Originally in 802.11ax draft, when multiple trigger frames are aggregated in an A-MPDU, only one Trigger frame is at the beginning of the A-MPDU. The locations of the other trigger frames are not restricted. However this arrangement makes the trigger frame padding complicated. As an example the trigger padding for LDPC coding is still not settled down. |
| 24088 | 241 | 51 | NOTE 1 should be also referred to.  Also, the expression of NOTE 1 in Table 9-532b is a little bit different from that of NOTE 2 in Table 9-532a. The expression in Table 9-532a is more cautious. There is no reason having different expressions. | Change "See NOTE 2." to "See NOTE 1 and NOTE 2."  Copy the content of NOTE 2 in Table 9-532a and overwrite the content of NOTE 1 in Table 9-532b. | Accepted |
| 24468 |  |  | There is no reason to require all Trigger frames to be first in the A-MPDU (after any immediate ack). The point of having multiple Trigger frames is to mitigate corruption, but having them all bunched up means they are more vulnerable to periodic interference. The AP should be allowed to decide where best to place multiple Trigger frames, if it decides to include them. The resolution to CID 22276 claims that this "can gave the destinated STAs more time to prepare the HE TB PPDU" but this is bogus because (a) all but the last Trigger frame might be corrupted (not received) and so (b) the way a STA ensures it has enough time to prepare is to specify its needs in the Trigger Frame MAC Padding Duration subfield of the HE MAC Capabilities Information field | Delete "The Trigger frames are the first MPDUs of the A-MPDU unless the A-MPDU also  carries an Ack or BlockAck frame in which case the Trigger frames are included  immediately after the Ack or BlockAck frame." in the tables in the referenced subclause | Rejected  Discussion: Originally in 802.11ax draft, when multiple trigger frames are aggregated in an A-MPDU, only one Trigger frame is at the beginning of the A-MPDU. The locations of the other trigger frames are not restricted. However this arrangement makes the trigger frame padding complicated. As an example the trigger padding for LDPC coding is still not settled down. |
| 24509 | 233 | 42 | "All of the MPDUs within an A-  MPDU have the same TA." -- either this duplicates existing requirements (which is what the resolution to CID 22394 seems to be saying), in which case it is not needed, or it cannot be imposed on legacy STAs, in which case it needs to be restricted to HE STAs | Delete the cited text | Revised  See 24509 |
| 24510 | 233 | 42 | "All of the MPDUs within an A-MPDU have the same TA." -- either this duplicates existing requirements (which is what the resolution to CID 22394 seems to be saying), in which case it is not needed, or it cannot be imposed on legacy STAs, in which case it needs to be restricted to HE STAs | Change "All of the MPDUs within an A-MPDU have the same TA." to "All of the MPDUs within an A-MPDU sent by an HE STA to another HE STA have the same TA." | Accepted |