IEEE P802.11  
Wireless LANs

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| 11ax D4.0 Comment Resolution 9.7.3 | | | | |
| Date: 2019-05-08 | | | | |
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Abstract

This submission proposes resolutions for multiple comments related to TGax D4.0 with the following CIDs:

* 20131, 20132, 20133, 20134, 20384, 20385, 20414, 20415, 20627, 20765,
* 21032, 21068, 21342, 21610

Revisions:

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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.***

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| **CID** | **PP** | **LL** | **Comment** | **Proposed Change** | **Resolution** |
| 20131 | 221 | 11 | Why has it switched from "One Ack or BlockAck frame" to "Zero or one Ack or BlockAck frame" in the A-MPDU control response context? If it is because of the sounding sequence please clarify it explicitly | As in comment. | Rejected  Discussion: it is clear from sounding protocol subclause that the Ack/BA will not be aggregated with sounding feedback: the sounding frame exchange is NDPA + NDP (+BFRP Trigger)+ sounding feedback only. No further change is needed. |
| 20132 | 222 | 35 | These QoS Null frames can appear at any time in this context. Hence, instead of repeating everytime jas part of the group, ust mention them as a separate row that is not part of the "one of the following" conditions. Please do the same for the subsequent tables as well.  Also add " MU BAR Trigger frame is not present if any QoS Data frames are present" as done in the other tables (e.g., Table 9-532c) in the second column of the Trigger row. | As in comment. | Revised  Discussion: Generally agree with the commenter.  TGax editor: add the following text at the end of the 2nd column of the Trigger row to “MU BAR Trigger frame is not present if any QoS Data frames are present” |
| 20133 | 223 | 1 | The title of the table is misleading since the A-MPDU can contain a Management frame that solicits an immediate response as well. Please remove "single TID" from the title | As in comment. | Revised  TGax editor to remove single TID from the title with the lable Table 9-532a through the draft. If Table 9-532a is in a column in the table, for the columns in the same row change “HE Non-Ack- Enabled Single TID Immediate Response” to “HE Non-Ack- Enabled Immediate Response” |
| 20134 | 223 | 31 | Implicit BAR and MU BAR frames seem to have been lost in the table for ack-enabled multi-TID A-MPDU. Please add them with the usual limitations (e.g., number of TIDs, non-presence if QoS Data frames are present etc). Check if anything else is missing from the split of the one table (of D3.0) into 4 separate tables in D4.0. | As in comment. | Rejected  Discussion: P223L31 is about single-TID A-MPDU. In table 9-532c where non-ack-enabled multi-TID A-MPDU is defined, MU-BAR is allowed. For multi-TID ack-enabled A-MPDU, MU-BAR is not allowed since this requires the Ack being stored then being sent later. |
| 20384 | 226 | 41 | In conditions column "Zero or more EOF-MPDUs each of which ...", is it suppose to be "Zero or more non-EOF-MPDUs"? | change to non-EOF-MPDUs | Revised  Discussion: Generally agree with the commenter.  TG ax editor: change the last bullet in 3rd column in Table 9-532d to “Zero or more non-EOF-MPDUs each of which is a QoS Data frame with Ack Policy subfield set to Implicit Block Ack Request, HTP Ack, or Block Ack and belonging to a block ack agreement, and two or more EOF-MPDUs each of which is a QoS Data frame with Ack Policy subfield set to Normal Ack or HTP Ack and where the TIDs of the QoS Data frames differ if there is more than one, zero or more non- EOF-MPDUs each of which is a QoS Null frame with Ack Policy subfield set to No Ack, zero or more non-EOFMPDUs each of which is a Basic Trigger, BSRP Trigger, or BQRP Trigger frame” |
| 20385 | 226 | 8 | In condition column bullet 1 with only 1 EOF-MPDU seems to be the same as ack-enabled single TID AMPDU,  Bullet 1 with 2 or more EOF-MPDUs seems to be a subset of bullet 3 | Modify the 1st bullet to cover the case that AMPDU has 1 EOF-MPDU (data or management)+ one or more non-EOF-MPDU (QoS data) | Rejected.  Discussion: Bullet 1 is different from ack-enabled single TID A-MPDU since ack-enabled single-TID A-MPDU only can include one EOF-MPDU. |
| 20414 | 224 | 26 | Delete "at most " since one of them must be in the A-MPDU. | As in comment | Accepted |
| 20415 | 226 | 7 | Delete "at most " since one of them must be in the A-MPDU. | As in comment | Accepted |
| 20627 | 222 | 17 | "Multi-TID Block" -- wrong type (everything is Multi-STA in ax) | Change to "Multi-STA Block". Also at 234.29, 237.28, 258.17, | Revised.  Discussion: The commenter is right that in P222 L17, it should be multi-STA Block Ack. However if the frame is related to block ack request frame, e.g. in P234L29, P237L28, P258L17, the multi-TID Block Ack Request is correct name.  TGax editor: change “Multi-TID Block Ack” in P222L17 to “Multi-STA Block Ack” |
| 20765 |  |  | Re CID 16212: the baseline qualifies all instances with "of these" or similar, so is not ambiguous | Add "of these" or similar qualifier to the "as most one of the following"s in the referenced subclause, as in the baseline | Rejected.  Discussion: the bullets list every allowed frames. So without “of these” is fine. Another observation is that not all bullets have “of these”, e.g. for acknowledge frames. |
| 21032 |  |  | Re CID 16207: the A-MPDU context tables are still an incomprehensible mess similar to the multirate rules mess | Restructure the tables so that the per-PHY/per-role (AP/STA) etc. caveats are clearer | Rejected  Discussion: the proposed change is not in sufficient detail. |
| 21068 | 225 | 1 | Shouldn't Table 9-532d--A-MPDU contents in the HE ack-enabled multi-TID immediate response context contain an allowance for one SMPDU? Is there a difference for DL vs UL, MU vs SU, triggered vs non? | Fix the table to allow one SMPDU, for example, zero or one SMPDU. | Rejected  Discussion: EoF MPDU is the frame that solicits Ack acknowledgement. There is not difference between DL and UL, MU and SU. |
| 21342 | 218 | 42 | These 4 new contexts all have the same definition. | Give each a unique definition | Rejected  Discussion: in table 9-527, the definition of the context is when the context is transmitted. All these four contexts are transmitted by the same transmitter. |
| 21610 | 222 | 55 | In Table 9-532a A-MPDU contents in the HE non-ack-enabled single TID immediate response context. It specifies as follows "At most one of the following is present: ... One or more non-EOF-MPDUs each of which is a Basic Trigger, MU-BAR Trigger, BQRP Trigger, or BSRP Trigger frame. The MU-BAR Trigger frame solicits block acknowledgment for one TID.". It basically means MU-BAR can not be aggregated together with QoS data in the DL HE MU PPDU. | Remove the limitation. Enable BAR and MU-BAR to agregate with QoS data in DL HE MU PPDU. | Rejected  Discussion: This topic was discussed several times in 11ax group. The previous agreement is that given that BAR is not allowed in A-PMDU in 802.11 baseline spec, 802.11ax also not allows the frame with BAR information tobe aggregated with A-MPDU with QoS Data frames. |