IEEE P802.11
Wireless LANs

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| 11ax D4.0 subclause 3.2 Comment Resolution  |
| Date: 2019-03-12 |
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Abstract

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

* 20441, 20449, 20686, 20687, 20779

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** |
| 20441 | 37 | 50 | Is it necessary to say that an ack-enabled ("single-TID") A-MPDU must have at least two A-MPDU subframes? It appears the definition (and subsequent operation requirements) would work just fine if this term also covered an A-MPDU with only one A-MPDU subframe, and it would simplify the definition. | Change definition to "An A-MPDU where all MPDUs in the A-MPDU subfields are from different TIDs and only one of the A-MPDU subframes ..." | **Revised**Discussion: an ack-enabled single-TID A-MPDU will always includes at least two MPDUs. Otherwose it will be S-MPDU. The proposed change is not right since some MPDUs in a single-TID ack-enabled A-MPDU may not belong to any TID. The name is changed to ack-enabled single-TID A-MPDU per the group discussion.TGax editor to make changes in 11-19/1336r2 under CID 20441 |
| 20449 | 39 | 5 | There are definitions of ack-enabled (single TID) and multi-TID A-MPDU, and of non-ack-enabled multi-TID A-MPDU, but not of non-ack-enabled (single TID) A-MPDU. | Add a defintion, "non-ack-enabled single TID aggregate medium access control (MAC) protocool data unit (non-ack-enabled single TID A-MPDU): An A-MPDU as defined in Table 9-532a." | RevisedTGax editor to make changes in 11-19/1336r2 under CID 20449 |
| 20686 | 39 | 4 | The definition of non-ack-enabled multi-TID A-MPDU is useless. It should be about what the frame is about, not an xref to a table | Change the definition to "An A-MPDU that contains QoS Data MPDUs from more than one TID, all of which are sent under a block ack agreement." | RevisedTGax editor to make changes in 11-19/1336r2 under CID 20686 |
| 20687 | 37 | 56 | The definition of ack-enabled multi-TID A-MPDU is useless. It should be about what the frame is about, not an xref to a table | Change the definition to "An A-MPDU that contains at least one QoS Data MPDU that is not sent under a block ack agreement, or at least one Management frame." | RevisedTGax editor to make changes in 11-19/1336r2 under CID 20687 |
| 20799 | 33 | 32 | Re CIDs 16282/12927(/15606). The problems remain that (a) it is not clear from Clause 3 how an ack-enabled multi-TID A-MPDU and a non-ack-enabled multi-TID A-MPDU (and an ack-enabled A-MPDU (single-TID)) differ and (b) it is not clear from Clause 3 how a non-ack-enabled single-TID A-MPDU differs from a legacy A-MPDU | Make the following points in the definitions in 3.2: (1) an ack-enabled multi-TID A-MPDU includes Data frames not sent under a BA agreement or Management frames, that require acknowledgement, either as 2 TIDs or as Data+Management (2) a non-ack-enabled multi-TID A-MPDU does not include Data frames not sent under a BA agreement that require acknowledgement and does not include Management frames that require acknowledgement (3) a non-ack-enabled single-TID A-MPDU is just a legacy A-MPDU (4) an ack-enabled A-MPDU cannot contain both a Data frame and a Management frame, that require acknowledgement (otherwise the current definition is OK) | RevisedTGax editor to make changes in 11-19/1336r2 under CID 20799 |

**3.2 Definitions specific to IEEE 802.11**

***TGax editor: change the following definitions:***

**ack-enabled multi-TID aggregate medium access control (MAC) protocol data unit (ack-enabled multi-TID A-MPDU):** An A-MPDU where at least one EOF MPDU that solicits Ack acknowledgement is aggregated in the A-MMPDU and MPDUs from more tha one TID that solicit Ack acknowledgement or Block Ack acknowledgement are aggregated in the A-MPDU. **(#**20799, **20687)**

NOTE---- The single Management frame that solicits the acknowledgement in ack-enabled multi-TID A-MPDU is treated as a frame from a TID, e.g. soliciting Ack of TID 15 in multi-STA BlockAck frame. **(#**20799, **20687)**

**ack-enabled single-TID aggregate medium access control (MAC) protocol data unit (ack-enabled single-TID A-MPDU):** An A-MPDU that contains at least two A-MPDU subframes where more than one MPDU in the A-MPDU sub-frames from same TID are not allowed and only one of the A-MPDU subframes includes an EOF-MPDU that solicits an immediate acknowledgment. **(#**20441**)**

NOTE---- The single Management frame that solicits the acknowledgement in ack-enabled single-TID A-MPDU is treated as a frame from a TID, e.g. soliciting Ack of TID 15 in multi-STA BlockAck frame. **(#**20441**)**

**non-ack-enabled multi-TID aggregate medium access control (MAC) protocol data unit (non-ack-enabled multi-TID A-MPDU):** An A-MPDU where EOF MPDUs are not aggregated and the aggregted non-EOF MPDUs from at least two TIDs solicit Block Ack acknoeledgement. (#20799, 20686)

non-ack-enabled single TID aggregate medium access control (MAC) protocool data unit (non-ack-enabled single TID A-MPDU): a legacy A-MPDU with the exception that Trigger frame can be aggregated. (# 20799, 20449)