IEEE P802.11
Wireless LANs

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| 11ax D5.0 comment resolution 26.6.3.1 |
| Date: 2019-11-08 |
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Abstract

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

* 22187, 22266, 22326.

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.***

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| **CID** | **PP** | **LL** | **Comment** | **Proposed Change** | **Resolution** |
| 22187 | 369 | 27 | "If the AP specifies a value defined in Table 9-154 (ACI-to-AC encoding) in the Preferred AC subfield in theTrigger Dependent User Info field of a Basic Trigger frame, then an HE STA that transmits a multi-TID A-MPDU to the AP should aggregate QoS Data frames with TIDs that are from the same AC as or a higher pri-ority AC than indicated in the Preferred AC subfield of the Trigger Dependent User Info field that isaddressed to the STA in the Trigger frame. " -- Table 9-154 has 4 values and the Preferred AC subfield is a 2-bit field, so the "If" condition is always met | Change the cited text to "An HE STA that transmits a multi-TID A-MPDU to the AP should aggregate QoS Data frames with TIDs that are from the same AC as or a higher priority AC than indicated in the Preferred AC subfield of the Trigger Dependent User Info field that is addressed to the STA in the Trigger frame. " | **Revised.****TGax editor to make changes in 11-19/2025r0 under CID 22187.** |
| 22266 | 369 | 12 | "exceed the current TXOP duration" is not clear. If it means "the duration of the TXOP so far" then it's always exceeded by transmitting something else within the TXOP | Change the cited text to "exceed the TXOP limit" | Revised.**TGax editor to make changes in 11-19/2025r0 under CID** 22266**.** |
| 22326 |  |  | There has been extensive discussion in TGmd of the extent to which multiple ACs' traffic could be transmitted within a given TXOP. The conclusion (see 18/1368 and 18/1260) was that the correct balance of optimal spectrum utilisation and optimal QoS prioritisation was that:\* Allowing a lower AC to transmit into an AC with higher priority degrades the differentiated service offered to the higher ACthough:\* However, once a lower AC has gained access, allowing the same STA higher AC to leverage that same TXOP makes sensei.e. you can aggregate higher-priority traffic only, after transmitting everything available on the primary AC.This balance exists for non-TB transmission in 11ax/D5.0. However in 11ax/D5.0 for TB transmission any ACs are allowed, with just a recommendation to transmit from the preferred AC or higher. The rule should be closer to the above, with encouragement to use the preferred AC first, then any higher-priority ACs, then anything else.There is also a lot of waffling and duplication in the current text. And references to non-existent fields in 26.4.1. | Make the changes shown under Proposed changes for CID 21203 in 19/1667r1 | RejectedDsiacussion: It is difficult for STA to prepare A-MPDU in HE TB PPDU if more restrictions are defined. with the current rules to aggregate QoS Data frames in A-MPDU in HE TB PPDU give STA more flexibility. Another observation is that what the commenter proposed is the “should” behavior already. |

**26.6.3 Multi-TID A-MPDU and ack-enabled single-TID A-MPDU**

**26.6.3.1 General**

***TGax editor: change 26.3.1 as following (there is no change to the text not shown):***

……

A multi-TID A-MPDU shall not be transmitted in an HE SU PPDU, HE ER SU PPDU or HE MU PPDU, unless the TXOP limit is greater than 0 for the AC that is used to gain access to the medium. The AC used to gain access to the medium is the primary AC (see 10.22.2.8 (TXOP limits)). If the TXOP limit of the primary AC is greater than 0, then the STA may aggregate QoS Data frames from one or more TIDs in the AMPDU under the following conditions:

— The A-MPDU shall be carried in either an HE SU PPDU or an HE ER SU PPDU transmitted by the STA within the obtained TXOP or an HE MU PPDU transmitted by a non-AP STA within the obtained TXOP

— The A-MPDU shall contain one or more MPDUs with any of the TIDs that correspond to the primary AC

— If no more MPDUs can be aggregated in the A-MPDU from any of the TIDs that correspond to the primary AC then the A-MPDU may additionally contain one or more MPDUs with TIDs that do not correspond to the primary AC if the TIDs correspond to any AC that has a higher priority with respect to the primary AC and the addition of these MPDUs does not cause the STA to exceed the TXOP Limit of the primary AC. (#22266)

……

An HE STA that transmits a multi-TID AMPDU to the AP in HE TB PPDU should aggregate QoS Data frames with TIDs that are from the same AC as or a higher priority AC than indicated in the Preferred AC subfield of the Trigger Dependent User Info field that is addressed to the STA in the Trigger frame. The number of TIDs from which QoS Data frames and the Management frame that solicits Ack frame are aggregated in an HE TB PPDU by a STA shall follow the restriction defined in Table 26-2 (Relation between TID Aggregation Limit field, Multi-TID Aggregation Tx Support field and solicited immediate response). (#22187)

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