IEEE P802.11  
Wireless LANs

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| 11ax D6.0 comment resolution of CID 24403 | | | | |
| Date: 2020-03-28 | | | | |
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Abstract

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

* 24403

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** |
| 24403 |  |  | [Resubmission of comment withdrawn on D5.0] There has been extensive discussion in TGmd of the extent to which multiple ACs' traffic could be transmitted within a given TXOP.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 AC    though:    \* However, once a lower AC has gained access, allowing the same STA higher AC to leverage that same TXOP makes sense    i.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 | **Revised**  **Discussion: the TB transmission is different from the transmission through EDCA: the decision about what to transmit is done within SIFS after receiving the soliciting Trigger frame. Other things also need to be done: CCA to decide whther the TB PPDU can be transmitted, the TB PPDU transmission preparing. It is good to give STA flexibility when responding TB PPDU. The current text in D6.0 clearly mentioned two cases single TID A-MPDU and multi-TID A-MPDU in TB PPDU. The resolution proposed by the commenter in 19-1667/r1 only includes the responding multi-TID A-MPDU case. The changes in 26.6.3.1 cover both multi-TID A-MPDU in HE TB PPDU and single-TID A-MPDU in HE TB PPDU.**  **The resolution proposed by the commenter also includes the text changes about carrying multi-TID Blockack Request: changing may to should about the TIDs whose BAs are solicited. The TIDs of the multi-TID Blockack Request may not be related to** the primary AC **of the soliciting Trigger frame. Here is an example: Basic Trigger 1, HE TB PPDU1 with multi-TID A-MPDU 1, M-BA1, Basic Trigger 2, HE TB PPDU2 with multi-TID Block Ack Reqesut to solicit BAs of multi-TID A-MPDU 1. This may happens when the STA doesn’t receive M-BA1 correctly. So the may in the sentence is fine. Another proposed change about changing “**TID subfields**” to “**TID Value subfields**” is good.**  **TGax editor to make changes in 11-20/1235r3 under CID 24403** |

**26.4 HE acknowledgment procedure**

**26.4.1 Overview**

***TGax editor: Change 26.4.1 as follows (no change to the text that is not shown here):***

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An HE STA that transmits a Multi-TID BlockAckReq frame in a PPDU that is not an HE TB PPDU shall set the TID Value subfields in the Per TID Info subfields of the BAR Information field of the Multi-TID BlockAck- Req frame to TIDs that correspond to ACs that have the same or higher priority as the primary AC. An HE STA that transmits a Multi-TID BlockAckReq frame in an HE TB PPDU may set the TID Value subfields in the Per TID Info subfields of the BAR Information field of the Multi-TID BlockAckReq frame to a TID that corresponds to any AC. (#24403)

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

**26.6.3.1 General**

***TGax editor: Change 26.4.1 as follows (no change to the text that is not shown here):*** (#24403)

……

An non-AP HE STA that transmits a multi-TID A-MPDU in an HE TB PPDU should aggregate QoS Data frames in the following order:

* first, any and all MPDUs that correspond to the Preferred AC subfield of the Trigger Dependent User Info field addressed to the STA in the Trigger frame
* then, any and all MPDUs that correspond to any AC that has a higher priority
* then, any MPDUs that correspond to any AC that has a lower priority
* subject to:the limit indicated in the TID Aggregation Limit subfield in the Trigger Dependent User Info field addressed to the STA in the Trigger frame
* the restrictions in Table 26-2 (Relation between TID Aggregation Limit field, Multi-TID Aggregation Tx Support field and solicited immediate response)
* the duration indicated in the UL Length subfield in the Common Info field of the Trigger frame

NOTE—These rules permit a STA to not aggregate any MPDUs from the preferred AC or a higher priority AC, and permit a STA to aggregate MPDUs in any order.

An non-AP HE STA that transmits a single-TID A-MPDU in an HE TB PPDU should select the TID in the following order:

* a TID that corresponds to the Preferred AC subfield of the Trigger Dependent User Info field addressed to the STA in the Trigger frame, if there is a corresponding MPDU for that TID
* otherwise, a TID that corresponds to any AC that has a higher priority, if there is a corresponding MPDU for that TID
* otherwise, a TID that corresponds to any AC that has a lower priority

subject to:

* the limit indicated in the TID Aggregation Limit subfield in the Trigger Dependent User Info field addressed to the STA in the Trigger frame
* the duration indicated in the UL Length subfield in the Common Info field of the Trigger frame

NOTE—These rules permit a STA to not select MPDUs from the preferred AC or a higher priority AC.

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