IEEE P802.11
Wireless LANs

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| Some CIDs on Multi-TID AMDPU |
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Abstract

This submission proposes resolutions for CID 71 and 190.

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 0.2. 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** | **Commenter** | **PP.LL** | **Comment** | **Proposed Change** | **Resolution** |
| 71 | Ahmadreza Hedayat | 85.14 | Is it necessary that a multi-TID AMPDU be carried in a MU PPDU as this suggests: "Multi-STA BlockAck frame shall be used to acknowledge the Multi-TID A-MPDU in MU PPDU. The value of TID field in Multi-STA BlockAck frame is TBD."? | Revise to: "Multi-STA BlockAck frame shall be used to acknowledge a Multi-TID A-MPDU. The value of TID field in Multi-STA BlockAck frame is TBD." | REVISED. Please see below. |
| 190 | Alfred Asterjadhi | 83.11 | "An A-MPDU with multiple TIDs shall not be transmitted in an SU PPDU" is not correct. Need to specify precisely what cannot be transmitted (i.e., multiple QoS Data frames whose TIDs are not equal to the same value?). THe A-MPDU can certainly contain a BAR for multiple TIDs that solicits multi-STA BA. | As in comment. | REVISEd. Please see below. |

### TGax Editor: *Change the paragraphs below as follows*

### 25.10.4 A-MPDU with multiple TIDs

A multi-TID A-MPDU is an A-MPDU that contains QoS Data frames with two or more different TID values.

An HE STA with dot11MultiTIDAMPDU~~withMultipleTIDOption~~Implemented set to true shall set the ~~A-MPDU with Multiple TIDs Capable~~ Multi-TID Aggregation Support subfield of the HE Capabilities element it transmits to ~~1~~a nonzero value; otherwise, the HE STA shall set it to 0.

An HE STA ~~AP~~ shall not send a multi-TID A-MPDU ~~with multiple TIDs~~ to an HE ~~non-AP~~ STA that has the Multi-TID Aggregation Support subfield in the HE Capabilities element equal to 0. ~~that associates with the AP, unless the HE non-AP STA with Multiple TIDs capable.~~

~~An HE non-AP STA shall not send an A-MPDU with multiple TIDs to its associated HE AP, unless the HE AP is A-MPDU With Multiple TIDs capable.~~

~~In an HE MU PPDU, a~~An HE STA may aggregate ~~the frames in~~ a multi-TID A-MPDU QoS Data frames with multiple TIDs as defined in Table 9-426a (Multiple TID A-MPDU contents in the data enabled immediate response context) or Table 9-426b (Multiple TID A-MPDU contents in the data enabled no immediate response context). ~~An A-MPDU with multiple TIDs shall not be transmitted in an SU PPDU.~~

If the multi-TID AMPDU is transmtted in a PPDU that is not an HE trigger-based PPDU, then the number of different TID values in the multi-TID A-MPDU shall not exceed the number specified by the intended recipient in the Multi-TID Aggregation Support field of the HE Capabilities element.

 If the multi-TID AMPDU is transmitted in an HE trigger-based PPDU, then the number of different TID values in the multi-TID A-MPDU shall not exceed the value specified in the Multi-TID Aggregation Limit subfield in the Type Dependent User Information subfield of the User Info field in the Basic variant Trigger frame that allocated resourced for the HE trigger-based PPDU.

A multi-TID A-MPDU shall not be transmitted in an HE SU, or HE extended range SU PPDU except when TXOP limit is not zero for the AC that is used to gain access to the medium. This AC is defined as the primary AC. When TXOP limit is not zero then the STA may aggregate QoS Data frames from one or more TIDs in the A-MPDU under the following conditions:

* The A-MPDU shall be carried in an HE SU PPDU or an HE ER SU PPDU transmitted within the obtained TXOP
* The A-MPDU shall contain one or more MPDUs with any of the TIDs that correspond to the primary AC
* When any of the buffers is empty or when 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 current TXOP duration (CID71, 190)

The Multi-STA BlockAck frame shall be used to acknowledge the MPDUs in a multiple TID A-MPDU. The value of the TID field in the Multi-STA BlockAck frame is TBD.