IEEE P802.11
Wireless LANs

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| **Proposed resolution for comments related to CIDs in 27.5.2** |
| **Date:** 2017/09/13 |

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Abstract

This submission proposes resolutions for comments in clause 27.5.2 of TGax Draft 1.0 with the following CIDs:

* CIDs: 7394, 8058, 8275, 8303

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Changed some words and added discussion (grey)

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** | **Clause Number** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 7394 | 27.5.2.2.3 | 167 | 25 | Recommendations on the AP parameters (EDCA parameters and TxOP duration) to access the channel to send a trigger frame should be defined in order to ensure fairness between OBSSs | Same as comment | RejectedTrigger frames follow the same rules as NDPA frames (see 10.2.4.2 HCF contention based channel access (EDCA) of base line (802.11-2016))In addition, putting any further restriction on the AP side would lead to unnecessary complexity for accessing the medium for a frame that solicits STAs to send frames belonging to any AC category (see 27.10.4 A-MPDU with multiple TIDs).  |
| 8058 | 27.5.2.2.3 | 167 | 34 | The sentence "An AP may use any AC for sending a PPDU that contains only Trigger frames." allows an AP to use the voice AC to "preempt" the medium, event if it knows, through reporting for instance, that the addressed STAs only have background traffic to transmit. In my opinion, we should at least recommend for data traffic that if the AP knows the AC categories of the buffered traffic of the addressed STAs, it should use the lowest AC reported for sending a PPDU that contains such Trigger frame | As in comment. | RejectedPlease see resolution to CID 7394 |
| 8275 | 27.5.2.2.3 | 167 | 38 | It is stated that "An AP may send the Trigger frame using any access category and follows the rules defined in 10.22.2". This is not applicable at all because AP does not know which AC to use.For Data or Ack frames, the AC is determined by examining the TID field of MSDU packet (TID is linked to UPs of MSDU from higher layer as refer to 5.1.1.3). For a Management frame, the AC is AC\_VO.What is the procedure for a Trigger Frame, as it is a control frame (which by essence has no TID)? | Procedure can envisage a mapping between the priority of the TF and the Access Categories AC0 - AC3 to insert the trigger frame. As example, by following sentence:" the trigger frame may be conveyed in the AC that corresponds to the type of uplink traffic that the HE STAs are requested to send in response to the trigger frame. If different ACs are requested to STAs, the HE AP may select an Access Category for the trigger frame corresponding to the AC with the highest priority among the requested Access Categories."Additionally, upon emergency for sending a Trigger Frame (BSR reports inform of an important amount of pending data), then " The AP may select one AC queue with the highest priority as the one that has the lowest backoff value, i.e. the next AC queue from which data will be sent on the medium. " | RejectedPlease see resolution to CID 7394 |
| 8303 | 27.5.2.2.3 | 167 | 38 | "An AP may send the Trigger frame using any access category and follows the rules defined in 10.22.2 (HCFcontention based channel access (EDCA)) for obtaining and sharing the TXOP."How is the position of the Trigger frame in the selected queue ? If too many frame are waiting to be transmitted, the transmission information (for instance RU information) can be obsolete. | Proposal:" An AP may send the Trigger frame using any access category and follows the rules defined in 10.22.2 (HCFcontention based channel access (EDCA)) for obtaining and sharing the TXOP. The Trigger frame is located in the head of the FIFO related to the selected access category" | RejectedWhat the commenter suggested is an implementation issue which is out of scope of the standard |

**Discussion**

Abstract

This document provides resolutions for the following CIDs on Clause 25.9.3. The baseline for this comment resolution document is 802.11ax Draft 0.1.

* CIDs: 705, 706

The corresponding text in the D1.4 is as following,

**27.5.2.2.3 AP access procedures for UL MU operation**

 “An AP may use any AC for sending a PPDU that contains only Trigger frames. If the PPDU contains frames that are not Trigger frames in addition to a Trigger frame, then the AP shall access the medium using the primary AC as defined in 10.22.2.6 (Sharing an EDCA TXOP) (#5397).”

Trigger frames follow the same rules as NDPA frames (see 10.2.4.2 HCF contention based channel access (EDCA) of base line (802.11-2016))

“A beamformer may send a VHT NDP Announcement frame or Beamforming Report Poll frame using any

access category and without being restricted by admission control procedures.”

In addition, putting any further restriction on the AP side would lead to unnecessary complexity for accessing the medium for a frame that solicits STAs to send frames belonging to any AC category (see 27.10.4 A-MPDU with multiple TIDs).