IEEE P802.11
Wireless LANs

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| 11ax D2.0 Comment Resolution 27.6.4 |
| Date: 2018-01-09 |
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Abstract

This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs :

* 12508, 13292.

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** |
| 12508 | 268 | 48 | It should be 11454 instead of HE beamformer's maximum MPDU length capability. | As in comment | **Revised.****TGax editor to make changes in 11-18/0078r1 under CID 12508** |
| 13292 | 268 | 39 | If the HE beamformee decides the parameters in the case of non-triggered sounding then the condition is not what is solicited by the size of the report generated. | Either have the HE beamformer decide the parameters or make the condition the actual size of the report (based on the parameters chosen bu the HE beamformee). | **Revised.****Generally agree with the commenter.****TGax editor to make changes in 11-18/0078r1 under CID 13292** |

Further discussion: it is difficult for a beamformee to keep the sounding feedback since multiple beamformers may do sounding with it. Also the resolution of CID 12941 removes Beamforming Report Poll frame from the HE SU sounding procedure. We propose that each HE sounding needs to finish in one TXOP and if the beamformer repoll beamformee’s feedback, the beamformee may not be able to respond with the feedback.

**27.6.4 Rules for generating segmented feedback**

***TGax editor: please makes changes in 27.6.4 (12508, 13292)***

If the HE compressed beamforming feedback (#13292) would result in an HE Compressed Beamforming And CQI frame that exceeds 11 454 octets, then the HE compressed beamforming feedback shall be split into up to 8 feedback segments. Each feedback segment shall be included in a separate HE Compressed Beamforming And CQI frame and shall contain successive portions of the HE compressed beamforming feedback consisting of the HE Compressed Beamforming Report information followed by any MU Exclusive Beamforming Report information. Each feedback segment shall be of equal length except the last feedback segment that may be smaller. Each HE Compressed Beamforming And CQI frame which includes one feedback segment except for the last feedback segment shall have length 11454 octets (#12508). Each feedback segment is identified by the value of the Remaining Feedback Segments subfield and the First Feedback Segment subfield in the HE MIMO Control field as defined in 9.4.1.62 (HE MIMO Control field); the other nonreserved subfields of the HE MIMO Control field shall be the same for all feedback segments. All feedback segments shall be sent in a single A-MPDU contained in a PPDU and shall be included in the A-MPDU in the descending order of the Remaining Feedback Segments subfield values.

An AP that sends a BRP Trigger frame shall allocate sufficient resources for the HE beamformee to send all the solicited feedback segments in the HE TB PPDU that is sent in response to the BRP Trigger frame.

An HE beamformer that sends a BRP Trigger frame, in its first attempt to retrieve HE compressed beamforming feedback from an HE beamformee, shall solicit all possible feedback segments by setting all of the bits in the Feedback Segment Retransmission Bitmap subfield to 1 in the User Info field addressed to the HE beamformee.

An HE beamformer that fails to receive some or all of the feedback segments of the HE compressed beamforming feedback from the HE beamformee, may solicit the selective retransmission of missing feedback segments by sending a Beamforming Report Poll frame or a BRP Trigger frame that indicates in the Feedback Segment Retransmission Bitmap subfield of the User Info field addressed to the HE beamformee the list of feedback segments solicited for retransmission (see 9.3.1.23.2 (Beamforming Report Poll (BRP) vari-ant)). The HE beamformer shall not transmit HE NDPA, HE NDP or BRP Trigger that solicit the sounding feedback of an HE NDP in more than one TXOP.

An HE beamformer that fails to receive the first feedback segment (identified by the First Feedback Segment field set to 1), may solicit the selective retransmission of the missing feedback segments assuming the HE compressed beamforming feedback is split into 8 feedback segments. The HE beamformer may also solicit the retransmission of all feedback segments by setting all of the bits in the Feedback Segment Retransmission Bitmap subfield to 1 in the User Info field addressed to the HE beamformee.

An HE beamformee that transmits HE compressed beamforming feedback including the HE Compressed Beamforming Report information and any MU Exclusive Beamforming Report information in response to a BRP Trigger frame shall either transmit only the feedback segments indicated in the Feedback Segment Retransmission Bitmap field in the Beamforming Report Poll frame or in the User Info field of the BRP Trigger frame addressed to the HE beamformee or transmit all the feedback segments available at the HE beamformee, excluding the feedback segments that do not exist at the HE beamformee.

After transmitting the HE compressed beamforming feedback, an HE beamformee may discard the transmitted feedback. If an HE beamformer solicits the missing segments from a beamformee and doesn’t receive the response from the beamformee, the HE beamformer should do another HE sounding with the beamformee.