IEEE P802.11
Wireless LANs

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| D2.0 comment resolution of miscellaneous comments |
| Date: 2023-01-11 |
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Abstract

This submission proposes resolutions for multiple comments related to TGbe D1.0 with the following CIDs:

 10351, 10550, 11376, 11902, 12472

 12727, 12729

Revisions:

* Rev 0: Initial version of the document.

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 TGbe Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbe Editor: Editing instructions preceded by “TGbe Editor” are instructions to the TGbe editor to modify existing material in the TGbe draft. As a result of adopting the changes, the TGbe editor will execute the instructions rather than copy them to the TGbe Draft.***

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| **CID** | **PP** | **LL** | **Comment** | **Proposed Change** | Resolution |
| 10351 | 201 | 38 | "... the number of buffers available for this particular TID, which is negotiated as defined in 35.3.8 (Block ack procedures in Multi-link operation), ..."The number of buffers available is not limited to MLO, so its negotiation should be defined in 35.4 (EHT acknowledgment procedure). | Refer to 35.4 (EHT acknowledgment procedure).Move the buffer size negotiation rules described in 35.3.8 to 35.4. | RevisedDiscussion: The commenter is correct. An EHT STA that is not affiliated with a MLD may still negotiate the BA buffer size defined by 11be.TGbe editor to make changes in THIS DOCUMENT with CID tag 10351 |
| 10550 | 201 | 39 | Provide reference to Table 35-1 as well since it covers buffer size. | As in comment | RevisedTGbe editor to make changes in THIS DOCUMENT with CID tag 10550 |
| 11376 | 128 | 34 | Ethernet MTU has been upgraded from 1.5K bytes to 9K bytes. As a result, 802.11 needs to provide support for MSDU size that is compatible with Ethernet MTU of 9K bytes. | Please specify the support of a larger MSDU that is compatible with the Ethernet MTU size of 9K bytes. | RejectedDiscussion: The MSDU size 9k may create the cases to fragment a MSDU e.g. when the maximal MPDU size is not 11, 454 octet. However the nondynamic fragmentation procedure is disallowed by 11be. |
| 11902 | 286 | 1 | Control response rate rules need to be amended to account for the EHT cases. | As in comment. | RejectedDiscussion: subclause 35.14 (PPDU format, BW, MCS, NSS, and DCM selection rules) defines the EHT case, i.e. the last paragraph in **35.14.3 (MCS, NSS, BW selection) in 11be D2.3 (35.15.3 in D2.0)**. This is like 11ax spec where the responding rate rules are not dfined in 10.6. |

*TGbe editor: Please change 9.4.2.139 as follows:*

**9.4.2.139 ADDBA Extension element**

**……**

The Extended Buffer Size field together with the Buffer Size subfield in the Block Ack Parameter Set field indicates the number of buffers available for this particular TID, which is negotiated as defined in 35.3.8 (Block ack procedures in Multi-link operation) and 35.4.2 **(Block ack Procedure) (#10351. 10550)**, where the buffer size is Extended Buffer Size **×** 1024 + Buf-fer Size.

*TGbe editor: Please change the title of 35.4.2 as follows:*

**35.4.2 Block ack Procedure (#10351)**

*TGbe editor: Please add the following paragraphes at the beginning of 35.4.2:(#10351)*

The BA agreement setup between two EHT STAs where at least one of them is not affiliated with the MLD follows the procedure defined in **10.25 (Block acknowledgment (block ack)) and the following procediure:**

* When a block ack agreement is established between two EHT STAs where at least one of them is not affiliated with the MLD, the originator may change the size of its transmission window (*WinSizeO*) so that the transmit window meets the following conditions:
	+ Is not greater than the buffer size indicated in the ADDBA Response frame.
	+ Is not greater than 1024 if the sender and receiver of the ADDBA Response frame are the EHT STAs.
* If the buffer size indicated in the ADDBA Response frame is smaller than the buffer size indicated in the ADDBA Request frame, the originator shall change the size of its transmission window (*WinSizeO*) such that:
	+ The transmission window is not greater than the buffer size indicated in the ADDBA Response frame.
	+ The transmission window is not greater than 1024 if the sender and the receiver of the ADDBA Response frame are EHT STAs.

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| **CID** | **PP** | **LL** | **Comment** | **Proposed Change** | Resolution |
| 12472 | 53 | 65 | Definition of EMLMR mode is missing in clause 3. Please add the definition in clause 3. | As in comment. | RevisedTGbe editor to make changes in THIS DOCUMENT with CID tag 12472 |

3.2 Definitions specific to IEEE 802.11

*TGbe editor: Please add the following definition at the end of 3.2:(#12472)*

**enhanced multi-link multi-radio (EMLMR) operation:** (#11819)A mode of operation that allows a non-access point (non-AP) multi-link device (MLD) with multiple receive chains to listen on a set of enabled links when the corresponding stations (STAs) affiliated with the non-AP MLD are in awake state for the ini­tial frame(s) sent by an AP affiliated with an AP MLD in a physical layer (PHY) protocol data unit (PPDU) with MCS, Nss defined by the EHT Capabilities element announced by the STA associated with the AP and the latest (EHT) OM announced by the STA (if exists), followed by frame exchanges with MCS, Nss defined in the latest EML Control field of the non-AP MLD on the link on which the initial frame(s) was received.

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| **CID** | **PP** | **LL** | **Comment** | **Proposed Change** | Resolution |
| 12727 | 467 | 55 | EMLMR STAs shall be able to receive beacon frames on their EML links in order to determine the TWT/rTWT SPs of which they are member of | Please provide rules for an EMLMR STAs to be able to receive beacon frames on their EMLMR links. | RevisedDiscussion: an EMLMR STA can select to receive the Beacons at the TBTTs in the link that the EMLMR STA negotiates the broadcast TWT membership and/or RTWT membership. The APs affiliated with the same AP MLD as the EMLMR STA’s associated AP is recommended to non do the frame exchanges at the TBTT. Please note that if the reception of the Beacons fails, the EMLMR STA can still figure out the RTWT (broadcast TWT) SP through TWT element in the TWT membership negotiation or the correctly received Beacon.TGbe editor to make changes in THIS DOCUMENT with CID tag 12727 |
| 12729 | 467 | 55 | EMLMR STAs shall be able to receive beacon frames on their EMLMR links in order to determine the TWT/rTWT SPs of which they are member of. There is an issue if an Initial frame is received during a TBTT expiry on another link. | Please provide rules for an EMLMR STAs or AP, to deal with the case of initial frame overlapping the TBTT on other EMLMR Link . | RevisedDiscussion: an EMLMR STA can select to receive the Beacons at the TBTTs in the link that the EMLMR STA negotiates the broadcast TWT membership and/or RTWT membership. The APs affiliated with the same AP MLD as the EMLMR STA’s associated AP is recommended to non do the frame exchanges at the TBTT. Please note that if the reception of the Beacons fails, the EMLMR STA can still figure out the RTWT (broadcast TWT) SP through TWT element in the TWT membership negotiation or the correctly received Beacon.TGbe editor to make changes in THIS DOCUMENT with CID tag 12729 |

**35.3.18 Enhanced multi-link multi-radio operation**

*TGbe editor: Please add the following paragraph at the end of 35.3.8:(#12727, 12729)*

At the TBTT of an AP affiliated with an AP MLD with which an EMLMR STA negotiates the broadcast TWT membership or R-TWT membership, another AP affiliated with the same AP MLD as the AP should not do the frame exchange with another EMLMR STA affiliated with the same non-AP MLD as the EMLMR STA.