IEEE P802.11  
Wireless LANs

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| **TGbe D2.0 LB266 Comment Resolutions**  **for A-MPDU in EHT PPDU** |
| **Date:** 2022-09-06 |

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Abstract

This submission proposes resolutions for the following 9 CIDs received for TGbe LB266:

* 10920, 11835, 11836, 11929, 11986, 12071, 12125, 12126, 14103

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.***

**Part 1:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause**  **(page.line)** | **Comment** | **Proposed Change** | **Resolution** |
| 11835 | Alfred Asterjadhi | 9.7.2  (274.41) | Underline/strikethrough seem to not be consistent in this table. Please check the baseline table and amend accordingly. | As in comment. | **Revised**  Agree with the commenter. I checked and compared tables in 11be spec and baseline spec and found two strikethroughs were missed. The changes are applied below.  **TGbe editor, please make changes as shown in doc 11-22/1424r0 tagged as CID 11835** |
| 11986 | Albert Petrick | 9.7.1  (271.47) | Spelling error in Table 9-627 | Change "AMPDU" to "A-MPDU" | **Accepted**  **TGbe editor, please make changes as shown in doc 11-22/1424r0 tagged as CID 11986** |

**Propose:**

***TGbe editor: Please note that the baseline is 11be D2.1.1 and REVme D1.3.***

**9.7 Aggregate MPDU (A-MPDU)**

**9.7.1 A-MPDU format**

***TGbe editor: Please change Table 9-627 (MPDU delimiter fields) as follows:***

**Table 9-627 – MPDU delimiter fields**

|  |  |  |
| --- | --- | --- |
| Field | Size (bits) | Descriptions |
| EOF/Tag | 1 | End of frame indication if the MPDU Length field is 0. Set to 1 in an A-MPDU subframe that has 0 in the MPDU Length field and that is used to pad the (#11986)A-MPDU in a VHT, ~~or~~ HE, or EHT PPDU as described in 10.12.6 (A-MPDU padding for VHT, HE, EHT or S1G PPDU). Set to 1 in the MPDU delimiter of an S-MPDU as described in 10.12.7 (Setting the EOF/Tag field of the MPDU delimiter).  Tagged/untagged indication if the MPDU Length field is nonzero. Set to 1 in an MPDU delimiter preceding a QoS Data frame or Management frame soliciting an Ack frame or Per AID TID Info field with the Ack Type field set to 1 in a Multi-STA BlockAck frame in a response that is contained in an ack-enabled multi-TID A-MPDU as described in 26.6.3.4 (Ack-enabled multi-TID A-MPDU operation) and ack-enabled single-TID A-MPDU as described in 26.6.3.2 (Ack-enabled single-TID A-MPDU operation). Set to 0 otherwise.  In a DMG PPDU, this field is reserved. In an EDMG PPDU, it is set to 1 in EOF padding subframes and set to 0 otherwise (see 10.12.7 (Setting the EOF/Tag field of the MPDU delimiter)). |
| Reserved | 1 |  |
| MPDU Length | 14 | Length of the MPDU in octets. Set to 0 if no MPDU is present. An A-MPDU subframe with 0 in the MPDU Length field is used as defined in 10.12.3 (Minimum MPDU start spacing rules) to meet the minimum MPDU start spacing requirement and also to pad the A-MPDU to fill the available octets in a VHT, ~~or~~ HE, or EHT PPDU as defined in 10.12.6 (A-MPDU padding for VHT, HE, EHT or S1G PPDU). |
| CRC | 8 | 8-bit CRC of the preceding 16 bits. |

**9.7.2 A-MPDU contents**

***TGbe editor: Please change two rows in the Table 9-628(A-MPDU contexts) as follows:***

**Table 9-628 – A-MPDU contexts**

|  |  |  |
| --- | --- | --- |
| **Name of context** | **Definition of context** | **Table defining permitted contents** |
| (#11835)HE Non-Ack-Enabled Multi-TID Immediate Response | The A-MPDU is transmitted by a TXOP holder or TXOP responder in an HE PPDU, and solicits block acknowledgments for multiple TIDs. | Table 9-636 (A-MPDU contents in the HE non-ack-enabled multi-TID immediate response context or in the EHT non-ack-enabled multi-TID immediate response context) |
| (#11835)EHT Non-Ack-Enabled Multi-TID Immediate Response | The A-MPDU is transmitted by a TXOP holder or TXOP responder in an EHT PPDU, and solicits block acknowledgments for multiple TIDs. | Table 9-636 (A-MPDU contents in the HE non-ack-enabled multi-TID immediate response context or in the EHT non-ack-enabled multi-TID immediate response context) |

**Part 2:**

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| **CID** | **Commenter** | **Clause**  **(page.line)** | **Comment** | **Proposed Change** | **Resolution** |
| 11836 | Alfred Asterjadhi | 9.8  (276.27) | None of the subclauses under clause 9.8 were amended in 11be. Hence no need for these subclause titles. Remove 9.8 heading and dependent headings under 9.8. | As in comment. | **Revised**  Agree with the commenter. The changes are applied below.  **TGbe editor, please make changes as shown in doc 11-22/1424r0 tagged as CID 11836** |
| 12071 | SunHee Baek | 9.8  (275.34) | The several tables about A-MPDU contents locate under 9.8(MAC frame format for PV1 frames). The tables deal with A-MPDU, so they need to move under 9.7(Aggregate MPDU(A-MPDU)). And section 9.8 needs to remove. | As the comment | **Revised**  Agree with the commenter. The changes are applied below.  **TGbe editor, please incorporate the changes as shown in doc 11-22/1424r0 tagged as CID 11836** |
| 12125 | JINYOUNG CHUN | 9.8  (275.27) | Table 9-632 is not belong to subclause 9.8.2. So delete the subclause 9.8 and 9.8.2 and add the table at the end of 9.7.2 A-MPDU contents | As the comment | **Revised**  Agree with the commenter. The changes are applied below.  **TGbe editor, please incorporate the changes as shown in doc 11-22/1424r0 tagged as CID 11836** |
| 12126 | JINYOUNG CHUN | 9.8.3  (276.20) | Table 9-634 to Table 9-637 are not belong to subcluase 9.8.3. So delete the subcluase title 9.8.3 and 9.8.3.1 and add the tables at the end of 9.7.2 A-MPDU contents | As the comment | **Revised**  Agree with the commenter. The changes are applied below.  **TGbe editor, please incorporate the changes as shown in doc 11-22/1424r0 tagged as CID 11836** |

**Propose:**

***TGbe editor: Please note that the baseline is 11be D2.1.1 and REVme D1.3.***

***TGbe editor: Please remove Section 9.8 and 9.8.2 from 11be D2.1.1:***

**(#11836)(#11836)**

***TGbe editor: Please place Table 9-632 and Table 9-633 in order in Section 9.7.2.***

***TGbe editor: Please remove Section 9.8.3 and 9.8.3.1 from 11be D2.1.1:***

**(#11836)(#11836)**

***TGbe editor: Please place the tables from Table 9-634 to Table 9-637 in order in Section 9.7.2.***

**Part 3:**

|  |  |  |  |  |  |
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| **CID** | **Commenter** | **Clause**  **(page.line)** | **Comment** | **Proposed Change** | **Resolution** |
| 11929 | Alfred Asterjadhi | 35.6  (489.61) | this requirement is misleading since it calls out all possible capability elements that can be present while not specifying the rules clearly. If this sentence is taken into account then one might think that the a-mpdu size is limited by the min of the sizes advertised by each of these capability elements, which is not true. please make this sentence declarative and the ones that follow as normative. | As in comment. | **Revised**  D2.1.1 already captures what this comment points out.  The first sentence of the paragraph describes which capabilities element is needed to calculate the maximum A-MPDU length in EHT PPDU. It includes EHT Capabilities element, HE Capabilities element, VHT Capabilities element, and HT Capabilities element, which looks like to be considered only to 5 GHz. But, the followed sentences of the paragraph are explaining the detailed cases such as whether VHT Capabilities element is received depending on the 2.4 GHz, 5 GHz, and 6 GHz bands.  **TGbe editor, No further changes are required for addressing this CID.** |
| 10920 | Kiseon Ryu | 35.6  (490.43) | TID-to-link mapping rule is applicable to transmission of MSDUs or A-MSDUs corresponding to a TID that is mapped to the link, not MPDU. | Replace "A STA affiliated with an MLD, which transmits a multi-TID A-MPDU on a link, shall follow the procedures described in 26.6.3  (Multi-TID A-MPDU and ack-enabled single-TID A-MPDU) for constructing the multi-TID A-MPDU with the exception that the A-MPDU shall not include an MPDU corresponding to a TID that is not mapped to the link (see 35.3.7.1 (TID-to-link mapping))."  with "A STA affiliated with an MLD, which transmits a multi-TID A-MPDU on a link, shall follow the procedures described in 26.6.3  (Multi-TID A-MPDU and ack-enabled single-TID A-MPDU) for constructing the multi-TID A-MPDU with the exception that the A-MPDU shall not include an MPDU with an MSDU or an A-MSDU corresponding to a TID that is not mapped to the link (see 35.3.7.1 (TID-to-link mapping))." | **Revised**  Agree with the commenter. The changes are applied below.  **TGbe editor, please make changes as shown in doc 11-22/1424r0 tagged as CID 10920** |
| 14103 | Li-Hsiang Sun | 35.6  (490.45) | Missing the case that neither 6GHz band capabilities nor VHT capabilities are sent but HT ,HE, EHT capabilities are sent | add the case | **Rejected**  The case of that HT, HE, and EHT capabilities are sent was not included because the data rate calculated based on the maximum A-MPDU length and the maximum PPDU duration of EHT PPDU could not be supported in the 2.4 GHz band. |

**Propose:**

***TGbe editor: Please note that the baseline is 11be D2.1.1.***

**35.6 A-MPDU Operation in an EHT PPDU**

***TGbe editor: Please change the paragraph as follows:***

A STA affiliated with an MLD, which transmits a multi-TID A-MPDU on a link, shall follow the procedures described in 26.6.3 (Multi-TID A-MPDU and ack-enabled single-TID A-MPDU) for constructing the multi-TID A-MPDU with the exception that the A-MPDU shall not include an MPDU (#10920)with an MSDU or an A-MSDU corresponding to a TID that is not mapped to the link (see 35.3.7.1 (TID-to-link mapping)).