IEEE P802.11
Wireless LANs

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| Comment resolutions for remaining CIDs (misc) |
| Date: 2022-03-15 |
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Abstract

This submission proposes resolutions for multiple comments related to TGbe D1.0 with the following CIDs (12 CIDs):

* 4232, 4282, 5161, 5997, 6132, 6381, 6562, 6941, 7450, 7495

Revisions:

* Rev 1: Updated with offline feedback.
* 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** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 4232 | 35.3.14.5 | 279.04 | Need to explicitly call out whether these are the only two PPDU formats or not. At least means that there might be others. | As in comment. | Agree in principle with the comment. Proposed resolution explicitly clarifies that the calculation of the expected PPDU is either HE SU or EHT MU PPDU, while the selection at the responding side is essentially whichever fits, although limiting to only 3 formats for simplicity.TGbe editor to make the changes shown in 11-22/0527r1 under all headings that include CID 4232. |
| 4282 | Annex C | 591.01 | Annex C is incomplete. Please complete. | As in comment. | Revised.Agree in principle.TGbe editor to make changes shown in 11-22/0527r1 |
| 4293 | 10.3.2.13 | 0.00 | Expand for adding EHT PPDUs in this subclause (references relative to TGax 8.0). Same for subclause 10.3.8 | As in comment. |  Work in progress |
| 4294 | 10.3.2.3.7 | 0.00 | Add execption for EHT PPDUs (references relative to TGax 8.0). Same for subclause 10.3.7. | As in comment. |  Work in progress |
| 5161 | 26.2.4 | 241.04 | As per 26.2.4 of baseline (IEEE 802.11ax(TM)/D8.0), a STA updates its intra-BSS NAV with the duration information indicated by the received frame if (among other conditions) the STA is not a TXOP holder and the received frame is a Trigger frame.Thus a STA receiving an MU-RTS TXS Trigger frame would have updated its intra-BSS NAV and will be unable to start transmitting non-TB PPDUs as per 35.2.1.3.3. | Change the 26.2.4 text of baseline (IEEE 802.11ax(TM)/D8.0) to exclude a non-AP STA following the procedure of 35.2.1.3 from the requirement to update its intra-BSS NAV on receiving an MU-RTS TXS Trigger frame. | Rejected. The CS response rules in section 26.5.2.5 already allows the client to ignore the intra BSS while responding to MU RTS |
| 5997 | 35.3.14.5 | 278.56 | the correct lause for selecting EHT MCS rules should be selected. | As in comment | Revised –Agree in principle with the comment. Proposed resolution clarifies this aspect by calling out the subclause where these extra rules are expected to be defined and adds the MCS expectation rule for the MCS of the EHT SIG field since that is variable as well. In addition added a statement for DCM use in HE SU PPDU since DCM is a separate parameter w.r.t., MCS, and also covered the rule for coding selection.TGbe editor to make the changes shown in 11-22/0527r1 under all headings that include CID 5997. |
| 6132 | C.3 | 0.00 | It is not clear whether MLDs have a MIB, or only their constitutent STAs. However dot11WNMSleepModeImplemented suggests MLDs do have a MIB. In that case, do they have all the attributes shown in C.3? | Clarify | RejectIt is clarified that "This attribute, when true, indicates that the station or non-AP MLD implementation is capable of supporting WNM sleep mode when dot11WirelessManagementImplemented is equal to true". No need to add any additional MIB for this purpose |
| 6381 | 35.3.14.5 | 279.09 | In Note-6 it says "if the PPDU carrying the response is an HE SU PPDU or an EHT MU PPDU addressed to one non-AP STA,..."; is there any scenario where the PPDU carrying the response is not HE SU PPDU or EHT MU PPDU?If there is no other scenario, please remove the "if" condition in Note-6 and rewrite the sentense;if there are other scenarios, please add text and clarify how the padding for those scenarios (except response as HE SU PPDU or EHT MU PPDU) should be calculated. | as in comment | Revised –These PPDUs are the only formats that can carry aggregated MPDUs, the reason for which this condition exists. However to explicitly call out all possible PPDU formats the proposed resolution is similar to that of CID 4242 where we specify that the only other PPDU format that can be used is non-HT (duplicate) PPDU, which does not actually carry A-MPDUs, hence needing no changes to note 6 anyways.TGbe editor to make the changes shown in 11-22/0527r1 under all headings that include CID 6381. |
| 6562 | 35.3.14.5 | 278.49 | The usage of the SRS control subfield should be extended to other PPDU formats, instead of limited to HE SU PPDU and EHT MU PPDU. | Please replace "PPDU format that includes HE SU PPDU, or EHT MU PPDU" to "PPDU format that includes HE SU PPDU, or any EHT PPDU" | Revised –The current text is very generic (allowing all other types of formats) and leads to ambiguity in this aspect. Proposed resolution is to call out that legacy format (non-HT (dup) PPDUs) can be used. That way it is clear that there are only three possibilities rather than leaving it open to any PPDU format.  TGbe editor to make the changes shown in 11-22/0527r1 under all headings that include CID 6562. |
| 6941 | 10.6 | 0.00 | It is important to maintain constant BW utilization during TXOP since the decision to grab the secondaries channels is done with short period of energy detection (not NAV as in primary). In order to reduce the risk of secondaries being taken in the mid of TXOP by other station, it is preferred that TXOP Initiator and Responder will utilize the same channels. At the current, this is not achieved through RTS/CTS exchange (the mechanism that ensure it until now). | add normative in 10.6 Multirate support saying that EHT responder shall not transmit in the disallowed channels it receives in the received PPDU U-SIG field. | Reject.EHT access follows the baseline channel utilization rules for this part, which are consistent with the commenter's observation. No need to change the current spec |
| 7450 | Annex C | 0.00 | Many existing MIB variables seem to be relevant at the MLD, but are not defined | Define MIB for an MLD as necessary | Revised.Agree in principle.TGbe editor to make changes shown in 11-22/0527r1 |
| 7495 | 3.2 | 43.03 | "a single multiple resource unit (MRU)" seems to have contradition between "single" and "multiple". It may be better to descibe that users are not multiplexed in frequency domain or use similar expression with the one in non-OFDMA HE PPDU or in non-OFDMA UL MU-MIMO. | As in comment. | Rejected.Agree in principle. However, the needed change is already made in D1.4 |

**Discussion: *See proposed resolution columns.***

**35.3.15.5 PPDU end time alignment**

**TGbe Editor: *Change the paragraph below of this subclause as follows (#CID 4232, 5997):***

If STAs affiliated with an NSTR non-AP MLD simultaneously transmit PPDUs to the respective APs affiliated with an AP MLD that has dot11SRSOptionImplemented equal to true, the transmitted PPDUs solicit control response frames and the NSTR non-AP MLD intends to align the end times of the PPDUs sent in response by the peer APs, then at least one of the PPDUs soliciting a control response frame shall carry an MPDU with SRS Control subfield. The STA shall set the PPDU Response Duration subfield of the SRS Control subfield to a value that is equal to or longer than the maximum of the expected duration of the response PPDUs on all links, where the expected duration of the response PPDU is calculated based on the following parameters:

* PPDU format that is HE SU PPDU, or an EHT MU PPDU with EHT-SIG MCS equals 0 and addressed to a single STA ,*(#4232, 5997)*
* Bandwidth that is equal to the bandwidth of the soliciting PPDU, with BCC coding if the BW is 20 MHz and LDPC coding if the BW is greater than 20 MHz.*(#5997)*
* NSS and number of LTFs that are equal to one,
* GI that is equal to the longest mandatory GI value (3.2 µs),
* MCS that is selected following the rate selection rules defined in 10.6.6.5 (Rate selection for control response frames), 26.17.1 (Basic HE BSS operation), 26.15.3 (MCS, NSS, BW and DCM selection), [35.13 (EHT BSS operation)](#bookmark84), and 35.12 (PPDU format, BW, MCS, NSS, and DCM selection rules)*(#5997)*
* A PSDU length that is equal to or greater than the length of a PSDU that contains the larger of a Multi-STA BlockAck frame and a Compressed BlockAck frame expected in response to the soliciting PPDU.

**TGbe Editor: *Change the paragraph below of this subclause as follows (#CID 4232, 6381, 6562):***

An EHT AP affiliated with an AP MLD that transmits a PPDU in response to a frame containing an SRS Control subfield shall:

* Have the duration of the PPDU to be equal to the duration that is specified in the PPDU Response Duration subfield of the soliciting SRS Control subfield.
* Use a non-HT (dup) PPDU, or HE SU PPDU,or an EHT MU PPDU format addressed to a single STA. If the PSDU carried in the response PPDU contains an A-MPDU then the contents of the A-MPDU shall be as defined in Table 9-533 (A-MPDU contents in the control response context).If the PPDU is an HE SU PPDU then it shall not use DCM encoding. *(#4232, 6381, 6562, 5997)*

NOTE 6—If the PPDU carrying the response is an HE SU PPDU or an EHT MU PPDU addressed to one non-AP STA, then the AP might use any type of padding to ensure that the duration of the PPDU is equal to the duration that is specified in the PPDU Response Duration subfield of the soliciting SRS Control subfield.

**TGbe Editor: *Change the paragraph below of this subclause as follows (#CID 4282, 7450):***

**C.3 MIB Detail**

***Editor’s Note: The following is a list of new MIB objects introduced in the main text:***

—dot11AAROptionImplemented

—dot11EHTEMLSROptionImplemented

—dot11EHTEMLMROptionImplemented

—dot11EHTOMIOptionImplemented

—dot11MLDAssociationSAQueryMaximumTimeout

—dot11MultiLinkActivated

—dot11RestrictedTWTOptionImplemented

—dot11SCSActivated

—dot11MobileAPMLDImplemented

—dot11SRSOptionImplemented

—dot11SupportedEMLMRRxNSS

—dot11SupportedEMLMRTxNSS

—dot11EHTOptionImplemented

—dot11TIDtoLinkMappingActivated

—dot11EHTBaseLineFeaturesImplementedOnly

—dot11EHTEPCSPriorityAccessActivated

—dot11EPCSPriorityAccessAuthorized

—dot11EHTTXOPSharingTFOptionImplemented

—dot11MSCSActivated

—dot11EHTOMIOptionImplemented

—dot11EHTPPEThresholdsRequired *(#CID 4282, 7450*)