**IEEE P802.11
Wireless LANs**

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| Comment resolutions for Miscellaneous CIDs |
| Date: 2022-05-11 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Alfred Asterjadhi | Qualcomm Inc |  |  |  |
| Yanjun Sun | Qualcomm Inc. |  |  |  |
| Po-Kai Huang | Intel Corp. |  |  |  |

Abstract

This submission proposes resolutions for multiple comments related to TGbe D1.0 with the following CIDs (52 CIDs):

* 4077, 4080, 4238, ~~4276~~, 4288, 4730, ~~4822,~~ 4926, 4933, 5061,
* 5135, ~~5181~~, 5262, 5307, 5333, 5334, 5347, ~~5363,~~ 5502, 5504,
* 5535, 5772, ~~5802, 5882, 6057, 6058, 6059,~~ 6065, 6227, 6243,
* ~~6391,~~ 6457, 6496, 6515, 6654, 6655, 6656, 6758, ~~6765,~~ 6889,
* 6947, 7346, ~~7489,~~ 7575, ~~7727,~~ ~~7800,~~ ~~7864,~~ 8060, 8154,
* 8271, 8272.

Legend:

* CIDs that have not been resolved yet.
* ~~CIDs~~ that are assigned to be resolved in other docs (if yellow then still pending, if green then approved).

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Revised version, that accounts the latest CID transfers, and updates. Incorporated proposed resolutions for several CIDs using suggestions received from Po-Kai, Yanjun. 25 CIDs have resolutions. 15 CIDs to go.
* Rev 2: Updated version with some more CIDs resolved using suggestions from Abhishek, Jarkko, Gaurang, Payam, and updated tracking. 3 CIDs to go.
* Rev 3: Proposed resolution for the last 2 CIDs, and one of the CIDs was transferred to Rubayet.

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 subsequent 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** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 4077 | Abhishek Patil | 276.01 | Move the paragraph starting "An MLD shall set the MLD Capabilities Present subfield in ..." to be the first paragraph in this subclause. Also please provide the rules when carries in Beacon and Probe Response frames. | As in comment | Revised –Agree in principle with the comment. For the second point in the comment, this has been addressed by the resolution of CID 4405 in [11-22/684r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0684-00-00be-cc36-cr-for-cid-4405.docx). For the first point in the comment proposing the move of the paragraphsTGbe Editor: Please move the cited paragraph to be the first paragraph of the subclause, noting that the paragraph has been split into two as per resolution in [11-22/684r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0684-00-00be-cc36-cr-for-cid-4405.docx) (hence those two split paragraphs are to be moved as the first two paragraphs of this subclause. |
| 4080 | Abhishek Patil | 284.24 | It is possible that a nonprimary link becomes unavailable due to co-ex or p2p reasons. | The spec needs to provide a mechanism to signal unavailability of of an AP of an AP MLD. Commenter will provide a contribution | Rejected-The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.The commenter is invited to submit a comment that provides more details. |
| 4238 | Alfred Asterjadhi | 280.13 | Indefined MIB variable. Please define the MIB variable in Annec C. Also add in PICS. | As in comment. | Revised –Agree in principle with the comment. Proposed resolution adds the MIB variable dot11MSDOFDMthreshold to Annex C, noting that this is already done by the resolution of CID 7574. Also 35.3.16.8 has already been added in PICS of D1.5 (see EHTM9.8.1). Hence no further changes are required.TGbe editor to make the changes shown in [11-21/1339r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1339-03-00be-cc36-cr-for-35-3-15-7.docx) under all headings that include CID 7574.Note to Editor: These changes are already present in D1.5. Hence no further changes are required. |
| ~~4276~~ | ~~Alfred Asterjadhi~~ | ~~262.42~~ | ~~Need to call out both partial state and full state rules, including behaviors for implicit BAR and explicit BAR. Also anything else needed from Multi-TID A-MPDU perspective?~~ | ~~As in comment.~~ | ~~Being resolved by Abhishek in 11-21/1584~~ |
| 4288 | Alfred Asterjadhi | 0.00 | Check whether EHT related amendments are needed for subclauses 10.23, 10.27, 10.25 and 10.36.(references relative to TGax 8.0). | As in comment. | Rejected-The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.The commenter is invited to submit a comment that provides more details. |
| 4730 | Chittabrata Ghosh | 279.41 | In my opinion, an additional exclusion rule is needed: If the TX PPDU duration in one link is less than the time remaining in the received PPDU on the other link as indicated by the RX PPDU SIG field, then the STA in the other link does not lose medium synchronization; in essence, as long as the STA is able to decode a Rx PPDU in the other link, the STA should not be considered to have lost medium synchronization."A STA affiliated with a non-AP MLD that belongs to a NSTR link pair is considered to have lost medium synchronization (due to UL interference) when the other STA, which is affiliated with the same MLD and belongs to that link pair, transmits a PPDU, except under the following condition:--Both STAs ended a transmission at the same time." | Please include the exclusion scenario mentioned in the comment | Rejected –The group discussed the proposal presented by the commenter ([11-22/1641r1](https://qualcomm-my.sharepoint.com/personal/aasterja_qti_qualcomm_com/Documents/Desktop/Qgenesis/EHT/CC36_TGbe%20D1.0/see%20https%3A/mentor.ieee.org/802.11/dcn/21/11-21-1641-00-00be-rule-of-exclusion-for-medium-access-recovery-procedure-for-an-nstr-sta.pptx)). There were discussions on how to enforce the proposals. The group did not reach consensus and no SP was run. |
| ~~4822~~ | ~~Dibakar Das~~ | ~~245.59~~ | ~~Define a way for a STA to dynamically request air-time resource to an AP so that the AP can allocate the resources efficiently.~~ | ~~As in comment.~~ | ~~Being resolved by Duncan in 11-22/200~~ |
| 4926 | Eldad Perahia | 41.25 | There is a definition for single radio non-AP MLD, but not multi radio | Add definition for multi radio | Rejected –There is a definition for multi radio as well, its just that it is located in another location (due to alphabetical ordering of definitions). Quoting here:“multi-radio non-access point (non-AP) multi-link device (MLD): A non-AP MLD that supports reception and transmission frames on more than one link at a time.” |
| 4933 | Eldad Perahia | 283.51 | "...the non-AP MLD shall be able to support the following until the end of the frame exchange sequence...". What's the point of a multi-radio non-AP MLD if it can't always receive on either link. Does that mean the basic operation of a multi-radio device is actually single radio? Or is this an issue of something like two radios, but three links? | as in comment | Rejected –The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.In reply to the commenter, enhanced multi link multi radio (eMLMR) enables an MLD to dynamically reconfigure spatial multiplexing capabilities on each link. |
| 5061 | Gaurang Naik | 277.05 | The spec says that the AP shall align the end time of the PPDUs soliciting an immediate response except if the PPDU carries a high priority frame. However, the definition of the high priority frame is missing. | Provide a definition of a high priority frame. | Rejected –The group has discussed on providing a definition for high priority frame but has not reached consensus. The issue has been discussed as part of the resolution to several other CIDs that point out the same aspect, namely 5102, 5364, 4227, etc, which have been discussed in [11-22/77r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0077-02-00be-cr-for-cids-on-ppdu-end-time-alignment.docx) where they were rejected with the following reason: “The group could not reach consensus the changes necessary to address the comment.” The commenter is invited to submit a comment that provides more details on a set of changes that would satisfy the comment. |
| 5135 | Geonjung Ko | 153.57 | When the AID Offset subfield is set to a value less than 2^n, where n is the MaxBSSID Indiator subfield value, the meaning of the Per-Link Traffic Indication Bitmap subfield that corresponds to AID less than 2^n is unclear. | Need restriction for the AID Offset subfield setting. | Revised –This comment is similar to comment 4068, which has been resolved in [11-21/1185r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1185-06-00be-cc36-resolution-for-cids-related-to-mbssid-part-2.docx), where the following note was added: “NOTE – In a multiple BSSID set, the first 2^n bits of the partial virtual bitmap of TIM element are reserved for the indication of group addressed frame for the BSSIDs in the set (see 11.1.3.8.5 (Traffic advertisement in a multiple BSSID set)). As a result, an AP affiliated with an AP MLD does not assign, to a non-AP MLD, an AID value that is less than 2^N where N is the maximum of the value carried in the MaxBSSID Indicator (n) field of the Multiple BSSID element corresponding to each link that is accepted as part of the multi-link (re)setup where the AP affiliated with the AP MLD belongs to a multiple BSSID set.”TGbe Editor: Please make changes as instructed by the resolution of CID 4068 in [11-21/1185r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1185-06-00be-cc36-resolution-for-cids-related-to-mbssid-part-2.docx).Note to TGbe Editor: These changes are already executed, so no further changes are required. |
| ~~5181~~ | ~~Guogang Huang~~ | ~~216.10~~ | ~~For the individually addressed protected robust Management frames, how to construct AAD is missing~~ | ~~Please add a subclause to describe how to encrypt the individual MMPDU. The solution is proposed in my presentation DCN21/571~~ | ~~Being resolved by Guogang in 11-22/704~~ |
| 5262 | Insun Jang | 267.17 | This case is only for default mapping mode? Because the figrue shows the recommended links on default mapping mode. Please clarify it | As in the comment | Rejected –The comment fails to identify a technical issue. In response to the comment, which refers to Figure 35-8 (noting that page/line identifiers in the comment are wrong). As shown in the figure both cases are depicted, namely default mapping and non-default mapping.  |
| 5307 | Jarkko Kneckt | 192.07 | The non-AP MLD should be capable to add or delete a link when it operates in associated state. The link addition or deletion should not change the parameters of other links. Please see submission 21/534 for more details | Please add mechanisms from submission 21/534. | Rejected –A proposed resolution for this concept was discussed as part of the comment resolutions in [11-20/1554r4](https://mentor.ieee.org/802.11/dcn/20/11-20-1554-04-00be-ml-reconfiguration.pptx), however the group could not reach consensus on a proposed change that would resolve the comment.”. The discussions occurred several conf calls and several SPs were run: On 2021/01/28: 11-20/1554r4 (slides)SP1 (client side link add/delete)Result: 43Y/30N/18A.On 2021/03/08: 11-20/1554r4 (slides)SP4 (AP removal announcement)Result: 55Y/29N/33A.On 2021/06/17: 11-21/0534r3 (text)Full text including client side operationResult: 44Y/40N/18A.On 2021/06/24: 11-21/0534r5 (text)Reduced text for AP add/remove operation only (high level SP)Result: 71Y/15N/22A. |
| 5333 | Jarkko Kneckt | 105.07 | Currently, an AP may change the Beacon frame transmission parameters without signalign the coming change to the associated STAs/non-AP MLDs. If AP starts to transmit Beacon at higher TX rate, some associated non-AP STAs in non-AP MLD may not be able to receive Beacons transmitted at the new rate. The associated non-AP STAs should get information prior Beacon TX mode change in order to select the AP/link from which the non-AP MLD receives Beacons. This ensures that STA does not lose connectivity to AP MLD. | Please allow AP to signal the change time, Beacon frame type and MCS in order to let associated non-AP MLDs to prepare for the coming change. | Rejected –A proposed resolution was discussed as part of the comment resolutions in [11-21/1756](https://mentor.ieee.org/802.11/dcn/21/11-21-1756-06-00be-cr-for-beacon-type-information.docx)r6, however the group could not reach consensus on a proposed change that would resolve the comment.”. The last discussion occurred during the MAC conf call of November 22 2021 in [11-21/1756](https://mentor.ieee.org/802.11/dcn/21/11-21-1756-06-00be-cr-for-beacon-type-information.docx)r6 and the SP that was run at that time had the following outcome: 17Y/21N/28A. |
| 5334 | Jarkko Kneckt | 105.07 | All associated non-AP MLDs should detect, if an affiliated AP changes its Beacon frame transmission parameters. | Please add beacon frame transmission parameter modification as a criterion to add AP specific Change Sequence Counter to let all associated non-AP MLDs to detect the link specific beacon frame parameters change. | Rejected –A proposed resolution was discussed as part of the comment resolutions in [11-21/1756](https://mentor.ieee.org/802.11/dcn/21/11-21-1756-06-00be-cr-for-beacon-type-information.docx)r6, however the group could not reach consensus on a proposed change that would resolve the comment.”. The last discussion occurred during the MAC conf call of November 22 2021 in [11-21/1756](https://mentor.ieee.org/802.11/dcn/21/11-21-1756-06-00be-cr-for-beacon-type-information.docx)r6 and the SP that was run at that time had the following outcome: 17Y/21N/28A. |
| 5347 | Jarkko Kneckt | 256.11 | The group frames in all links should use the same SN and PN in order to allow simple detection of duplicate group frames and link switch from which STA receives group frames. | Please define that group addressed frames use the same SN and PN for all links. This is defined in submission 21/410 | Revised –MLD level SNS for group addressed Data frames has been agreed in [11-21/1260r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1260-01-00be-proposed-resolution-to-11be-cc36-cids-on-group-addressed-data-frame-duplicate-detection.docx).Need for MLD level group addressed PN has been discussed in [11-21/411r3](https://mentor.ieee.org/802.11/dcn/21/11-21-0411-03-00be-proposed-resolution-to-11be-cc34-cids-on-gtk-for-mlo.docx) but the proposal is not adopted.TGbe editor no further changes are needed. |
| ~~5363~~ | ~~Jay Yang~~ | ~~135.30~~ | ~~allow/deny list feature is widely used in current AP product in current design, the AP may not send probe response if the MAC address of a specified non-AP STA is added the deny list when receives the probe request . Because it doesn't make sense in such case if the AP intends to refuse the connection of a specified non-AP STA, and also it's too wasted for the efforts on both side if the non-AP STA is not aware of such rejection until receiving the association response with the status code equal to reject.Same concern for the MLD, if a AP MLD adds the MLD MAC address of a non-AP MLD to it's deny list, AP MLD may not response with ML probe response after receiving the ML probe request in which the MLD MAC address matches with the deny list.Besides, considering the buffer size of deny list, AP MLD may only store the MLD MAC rather than each link address of non-AP MLD~~ | ~~AP MLD may identify a non-AP MLD with its MLD MAC address, and may not send ML probe response if the MAC address matches the deny list. Therefore, the MLD MAC address shall be present in ML probe request frame.~~ | ~~Resolved by Rojan in 11-22/1278~~ |
| 5502 | Jinsoo Choi | 71.18 | It's not clear if the BQR is associated with dot11EHTBaseLineFeaturesImplementedOnly, but EHT BQR needs to be defined since the new 320 MHz BW is in R1. | As in comment | Rejected –A proposed resolution for this CID was discussed as part of the comment resolutions in [11-21/1299r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1299-02-00be-cc36-cr-bqr-for-320mhz.docx), however the group could not reach consensus on a proposed change that would resolve the comment.”. The discussion occurred during the Joint conf call of August 18 2021 in [11-21/1299r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1299-02-00be-cc36-cr-bqr-for-320mhz.docx) and the SP that was run at that time had the following outcome: 34Y, 23N, 45A. |
| 5504 | Jinsoo Choi | 71.28 | It's not cleary defined that the EHT STA utilizes the HE link adaptation (HLA) or a new EHT link adaptation. Like EHT operating mode (EHT OM), since EHT introduce a new bandwidth, MCS, Nss, it's recommended to define the EHT link adaptation (ELA) otherwise specify the EHT STAs use HE link adaptation (HLA). | Define the ELA (EHT link adaptation) Control subfield with a new Control ID (e.g. 9 or 11), otherwise specify the EHT STAs can operate with HLA Control subfield | Rejected –EHT STAs are HE STAs and as such can already use HE Link Adaptation as part of the suite of functionalities inherited from being an HE STA. Regarding the addition of the new parameters mentioned in the comment, it is not clear whether there is any benefit of including them into the HE link Adaptation Control field or defining an EHT Link Adaptation Control field. |
| 5535 | JINYOUNG CHUN | 71.42 | BQR (Bandwidth query report) Control subfield should be updated because it's only support till 160MHz. | add EHT BQR control as new subclause | Rejected –A proposed resolution for this CID was discussed as part of the comment resolutions in [11-21/1299r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1299-02-00be-cc36-cr-bqr-for-320mhz.docx), however the group could not reach consensus on a proposed change that would resolve the comment.”. The discussion occurred during the Joint conf call of August 18 2021 in [11-21/1299r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1299-02-00be-cc36-cr-bqr-for-320mhz.docx) and the SP that was run at that time had the following outcome: 34Y, 23N, 45A. |
| 5772 | Laurent Cariou | 246.18 | the task group agreed on motion 142 saying: The support of the following MLO features is mandatory for 802.11be AP and 802.11be STA. This means that an EHT STA shall support MLO and shall be capable of being part of an MLD. This is still not captured in the spec and needs to be added. | as in comment | Revised –Relevant texts related to the comments has been discussed and agreed in [11-21/2009r7](https://mentor.ieee.org/802.11/dcn/21/11-21-2009-07-00be-cr-for-3-2.docx).TGbe editor no further changes are needed. |
| ~~5802~~ | ~~Lei Huang~~ | ~~289.30~~ | ~~EHT NDP frame should be changed to EHT sounding NDP~~ | ~~as in the comment~~ | ~~Resolved by Arik in 11-22/683~~ |
| ~~5882~~ | ~~Liangxiao Xin~~ | ~~298.34~~ | ~~Need extra parameter setting for R-TWT setup, whether there is quiet elment protection, whether R-TWT member STA is allowed to contend channel outside R-TWT SP.~~ | ~~suggest to use all the values of the broadcast TWT recommendation subfield 4~7 for restricted TWT.~~ | ~~Discussed in 11-22/536r0 and resolved by Motion 374.~~ |
| ~~6057~~ | ~~Liwen Chu~~ | ~~288.50~~ | ~~this paragraph should be removed since subclause 35.5.4 gives complete and accurate rules.~~ | ~~As in comment~~ | ~~Being resolved by Zinan in 11-22/757~~ |
| ~~6058~~ | ~~Liwen Chu~~ | ~~289.01~~ | ~~Based on the tet, an AP with 160MHz can annoucne 80MHz MU beamformer capability or 320MHz MU beamformer capability which should be disallowed.~~ | ~~Change the text according to the comment.~~ | ~~Being resolved by Zinan in 11-22/757~~ |
| ~~6059~~ | ~~Liwen Chu~~ | ~~289.05~~ | ~~Based on the tet, an STA with 160MHz can annoucne 80MHz MU beamformee capability or 320MHz MU beamformee capability which should be disallowed.~~ | ~~Change the text according to the comment.~~ | ~~Being resolved by Zinan in 11-22/757~~ |
| 6065 | Liwen Chu | 284.06 | Because of the restricted medium access of soft AP MLD, the TWT power ave etc. should be adapted accordingly. | Change the text according to the comment. | Rejected –The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined. |
| 6227 | Ming Gan | 0.00 | If MLD participates the fast BSS transition, the address setting needs update, like FT request/response | as in the comment | Revised –Relevant texts has been discussed and agreed in [11-21/1271r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1271-04-00be-cc36-cr-on-ft-action-frame.doc).TGbe editor no further changes are needed. |
| 6243 | Ming Gan | 0.00 | In the approved document 21/80r9, the TWT tear down operation for MLD is missing, please update the the text | as in the comment | Rejected –The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.The commenter is invited to submit a comment on the TGbe draft rather than doc 11-21/80r9. |
| ~~6391~~ | ~~Muhammad Kumail Haider~~ | ~~166.21~~ | ~~EHT STAs supporting rTWT operation may also be NSTR limited during r-TWT SPs if r-TWT SP is on a link which is NSTR with another link. Rules for determining NSTR limitation and hence whether to respond to CTS e.g., should be revised to take into account r-TWT operation.~~ | ~~Revise the rules for NSTR limited STAs as needed~~ | ~~Being resolved by Rubayet in 11-22/254.~~ |
| 6457 | namyeong kim | 130.30 | We need to define solicited method for critical update information of other APs. In baseline spec., a STA shall awake to gather the updated parameters from AP's Beacon and this may be inefficient when the STA is in doze state. If we can use MLD probe request to retrieve the critical update information, it is beneficial for power saving. (Please see contribution 21/720) | Please define a solicited method to retrieve critical update information of other APs using ML probe request. | Rejected –A proposed resolution for this CID was discussed as part of the comment resolutions in [11-22/61r4](https://mentor.ieee.org/802.11/dcn/22/11-22-0061-04-00be-cc36-cr-for-ml-probing-to-retrieve-critical-update.docx), however the group could not reach consensus on a proposed change that would resolve the comment.”. The last discussion occurred during the Joint conf call of May 12 2022 during the motions and the Motion that was run at that time had the following preliminary outcome: 72Y, 44N, 53A. |
| 6496 | Osama Aboulmagd | 276.59 | I am confused by the statement, "If a NSTR MLD that is receiving a PPDU on a first link simultaneously transmits another PPDU on a second link, then the NSTR..." if it is an NSTR device how it can receive and transmit at the same time? | Clarify | Rejected –The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.In response to the commenter, the capability of the device to receive and transmit at the same time depends on the amount of the self-interference caused by the transmission on the other link. This part is explicitly stated in the sentence under discussion as well. Quoting the sentence: If a non-AP MLD that is receiving a PPDU on a link that is part of an NSTR link pair for that MLD concurrently transmits another PPDU on another link that is part of the same NSTR link pair for that MLD, then the non-AP MLD might fail to receive the PPDU on the link because of the interference caused by its transmission on the other link.” |
| 6515 | Pascal VIGER | 240.04 | The NDP Feeback Report procedure is universal (as energy emitted on a RU tone set) and can be used to trigger both HE and EHT stations. There is a need to capitalize on that feature to support an efficient random access mechanism | Please consider an efficient Random Access scheme on top of NFRP mechansim, as illustrated through document 11-20/1903. | Rejected –A proposed resolution for this CID was discussed as part of the comment resolutions in [11-20/1903r3](https://mentor.ieee.org/802.11/dcn/20/11-20-1903-03-00be-random-access-for-11be.pptx), however the group could not reach consensus on a proposed change that would resolve the comment.” The discussion occurred during the Joint conf call of 23 June 2021 in [11-20/1903r3](https://mentor.ieee.org/802.11/dcn/20/11-20-1903-03-00be-random-access-for-11be.pptx) and no SP was run at that time. |
| 6654 | Qi Wang | 220.08 | "Each transmitter STA that is affiliated with an MLD shall use the PN that is maintained by the MLD for the PTKSA and the PN that is maintained by the AP affiliated with the AP MLD for the GTKSA." Unify the design for unicast and groupcast frame delivery. Specify that a ML level common GTK and PN check applied to group addressed frames delivery over all links. | As in comment. See 11be submission 2021/41 for additional details. | Rejected –Need for MLD level group addressed PN has been discussed in [11-21/411r3](https://mentor.ieee.org/802.11/dcn/21/11-21-0411-03-00be-proposed-resolution-to-11be-cc34-cids-on-gtk-for-mlo.docx) but the proposal is not adopted. |
| 6655 | Qi Wang | 228.09 | "MLO GTK: is the GTK for the AP affiliated with the AP MLD for the link specified by thevalue in the LinkID field." Unify the design for unicast and groupcast frame delivery. Specify that a ML level common GTK and PN check applied to group addressed frames delivery over all links. | As in comment. See 11be submission 2021/41 for additional details. | Rejected – Need for MLD level group addressed PN has been discussed in [11-21/411r3](https://mentor.ieee.org/802.11/dcn/22/11-22-0411-03-00bd-p802-11bd-report-to-ec-on-approval-to-go-to-sa-ballot.pptx) but the proposal is not adopted. |
| 6656 | Qi Wang | 256.11 | "Different links use different GTK/IGTK/BIGTK and each link has its own PN space. TheGTK/IGTK/BIGTK of each setup links are delivered to the non-AP MLD using a single 4-way handshake as defined in 12.7.6 (4-way handshake).". Specify that a ML level common GTK and PN check applied to group addressed frames delivery over all links. | As in comment. See 11be submission 2021/41 for additional details. | Rejected –Need for MLD level group addressed PN has been discussed in [11-21/411r3](https://mentor.ieee.org/802.11/dcn/22/11-22-0411-03-00bd-p802-11bd-report-to-ec-on-approval-to-go-to-sa-ballot.pptx) but the proposal is not adopted. |
| 6758 | Romain GUIGNARD | 257.37 | During (re)setup procedure, if the AP MLD rejects the setup for one link requested by the non-AP MLD, it may be interesting for the non-AP MLD that the AP MLD suggests a fallback link (if it is possible) to avoid multiple attempts from the non-AP MLD in order to find the preferred AP/link. | AP MLD shall suggest prefered link in case of rejection on one link during (re)setup. | Revised –A reason code for this particular case was added as part of the comment resolution of CID 6642 in [11-22/599r6,](https://mentor.ieee.org/802.11/dcn/22/11-22-0599-06-00be-cr-for-miscellaneous-cids-part-ii.docx) which added the following:*“The Status Code field included in the STA Profile subfield of the Per-STA Profile subelement shall indicate DENIED\_LINK\_ON\_WHICH\_THE\_(Re)ASSOCIATION\_FRAME\_IS\_TRANSMITTED\_NOT\_ACCEPTED if the Status Code is not set to REFUSED\_REASON\_UNSPECIFIED and the link corresponiding to the Per-STA Profile subelement is not accepted only because the link on which the (Re)Association Request frame is transmitted is not accepted.”*TGbe Editor: Please make changes as instructed by the resolution of CID 6642 in [11-22/599r6](https://mentor.ieee.org/802.11/dcn/22/11-22-0599-06-00be-cr-for-miscellaneous-cids-part-ii.docx).Note to TGbe Editor: These changes are already executed, so no further changes are required. |
| ~~6765~~ | ~~Romain GUIGNARD~~ | ~~267.17~~ | ~~Please refer paragraph which explains by which means the AP MLD may recommend a non-AP MLD to use one or more enabled links to retrieve addresse buffered Bus because in the following text of the sub clause, the term recommended is not present except in the figure.~~ | ~~as in comment~~ | ~~Being resolved by Pooya in 11-21-1793~~ |
| 6889 | Rubayet Shafin | 152.38 | There are 16 possible TID values. Why only 8 TIDs are considered in Multi-Link Traffic element? | Please provide the justification/rationale | Rejected –The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.In response to the commenter, there are only 8 TIDs in use for EDCA (which is the default access mechanism for EHT). Please refer to Table 9-12 (TID subfield). |
| 6947 | Saju Palayur | 0.00 | Does HE Link adaptation (HLA) Control ID subfield should be updated for EHT ? | please clarify and update RU Allocation/BW fields accordingly | Rejected –The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined. |
| 7346 | Stephen McCann | 90.52 | The MIB variable dot11ehtbaselinefeaturesimplementedonly is only ever used when it is set to true. The one occurance of when it might be set to false (P409L19) implies that the value of false has no meaning in the draft. Therefore this MIB variable is superfluous and can be removed. | Delete all occurances of "dot11ehtbaselinefeaturesimplementedonly" throughout the draft. |  Rejected –The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined. |
| ~~7489~~ | ~~Tomoko Adachi~~ | ~~41.21~~ | ~~Is this supposed to be a non-AP MLD in EMLMR mode? Or is it supposed to be an STR MLD (or an MLD with all link pairs STR)? In either way, the definition is not accurate. It should be revisited.~~ | ~~As in comment.~~ | ~~Resolved by Liwen in 11-22/570.~~~~Rejected –~~~~The definition “multi-radio non-access point (non-AP) multi-link device (MLD): A non-AP MLD that supports reception or transmission of frames on more than one link at a time.” is sufficiently accurate to cover all intended cases, which are all MLD modes that require more than one radio (i.e., MLMR, eMLMR, STR, NSTR, and so on).~~  |
| 7575 | Tomoko Adachi | 280.57 | "The other AP affiliated with the AP MLD should transmit a Trigger frame to the other non-AP STA affiliated with the non-AP MLD to solicit an UL PPDU if ... the other AP does not have frame exchanges already scheduled with another STA." By this "should", the AP can always be irresponsible and the mechanism will be in no use. It needs to be a shall. | As in comment. |  Rejected –A proposed resolution for this CID was discussed as part of the comment resolutions in [11-21/1685r5](https://mentor.ieee.org/802.11/dcn/20/11-20-1903-03-00be-random-access-for-11be.pptx), however the group could not reach consensus on a proposed change that would resolve the comment.” The discussion occurred during the MAC conf call of November 17 2021 in [11-21/1685r5](https://mentor.ieee.org/802.11/dcn/20/11-20-1903-03-00be-random-access-for-11be.pptx) and the SP result was: 33Y/19N/27A. |
| ~~7727~~ | ~~Xiaofei Wang~~ | ~~280.28~~ | ~~The note describes normative behavior and should be in regular spec text~~ | ~~as in comment~~ | ~~Resolved by Xiaofei in 11-22/750.~~ ~~Revised –~~~~The normative behavior is already specified in IEEE802.11ax, and as such additional normative behavior is redundant. In order to help the reader find the location of the normative behavior the proposed resolution is to add a reference to that subclause.~~ ~~TGbe editor: Please add “(see 26.2.4 Updating two NAVs”) at the end of the note below:~~~~“NOTE—If either the intra-BSS NAV or the inter-BSS NAV is nonzero in the non-AP STA affiliated with the non-AP MLD when it starts the MediumSyncDelay timer, the non-AP STA does not initiate any TXOP and follow the same rules as an HE STA to respond to any RTS or MU-RTS frame until both NAVs expire.”~~ |
| ~~7800~~ | ~~Yanyi Ding~~ | ~~289.45~~ | ~~"In partial bandwidth non-TB sounding sequence case, the Puncturing Channel Information fields in U-SIG shall indicate the same puncturing pattern as in the Partial BW Info subfield in the EHT NDP Announcement frame." Better to specify where the U-SIG belongs to, is it of the NDP following the NDPA or the PPDU carrying the NDPA?~~ | ~~Revise the sentence to specify the where the U-SIG belongs to.~~ | ~~Being resolved by Zinan in 11-22/760~~ |
| ~~7864~~ | ~~Yonggang Fang~~ | ~~310.25~~ | ~~The procedure of EDCA operation using NSEP EDCA parameters is not efficient and effective for the NSEP AP MLD to control NSEP non-AP devices to perform EDCA based channel access when multiple NSEP non-AP devices contend to media at same time and cause access congestion.~~ | ~~Please define a method to allow an NSEP AP MLD to update NSEP EDCA parameters in broadcast way to control NSEP enabled non-AP devices' priority access when experiencing NSEP priority access congestion.~~ | ~~Resolved by Yonggang in 11-22/742.~~ |
| 7892 | Yongho Seok | 181.22 | Please speicfy the contention based admission control procedures in MLO. | As in the comment. | Withdrawn |
| 8060 | Yuchen Guo | 135.59 | The probe request variant MLE should be able to let the STA optionally NOT solict the information of the transmitting link. | Add one field called "transmitting link info requested" in the STA Control field of the probe request variant MLE | Rejected –A proposed resolution for this CID was discussed as part of the comment resolutions in [11-21/1452r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1452-01-00be-cr-for-probe-request-variant-mle.docx), however the group could not reach consensus on a proposed change that would resolve the comment.” The discussion occurred during the MAC conf call of 22 November 2021 in [11-21/1452r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1452-01-00be-cr-for-probe-request-variant-mle.docx) and no SP was run at that time. |
| 8154 | Yunbo Li | 71.50 | The indication of 320MHz through BQR already passed motion (Motion 135, #SP220). It is label in R2 just because some member asked whether it is a R2 feature without provide a reason. Since 320MHz is a R1 feature, 320MHz BQR indication should also be R1. | covert the motion text into 11be spec in R1 | Rejected –A proposed resolution for this CID was discussed as part of the comment resolutions in [11-21/1299r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1299-02-00be-cc36-cr-bqr-for-320mhz.docx), however the group could not reach consensus on a proposed change that would resolve the comment.”. The discussion occurred during the Joint conf call of August 18 2021 in [11-21/1299r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1299-02-00be-cc36-cr-bqr-for-320mhz.docx) and the SP that was run at that time had the following outcome: 34Y, 23N, 45A. |
| 8271 | Zhiqiang Han | 108.19 | The parameter dot11MultiLinkActivated has added.so it's better to use this parameter to describe the capability. Change the setence to " if dot11MultiLinkActivated is true;" | as in comment. | Revised –Agree in principle with the comment. TGbe Editor: Please replace“The Basic Multi-Link element is present if the AP is affiliated with an AP MLD. Otherwise it is not present.” with “The Basic Multi-Link element is present if dot11MultiLinkActivated is true. Otherwise it is not present.” |
| 8272 | Zhiqiang Han | 108.40 | The parameter dot11MultiLinkActivated has added.so it's better to use this parameter to describe the capability. Change the setence to " if dot11MultiLinkActivated is true;" | as in comment. | Revised –Agree in principle with the comment. TGbe Editor: Please replace“The Basic Multi-Link element is optionally present if the STA is affiliated with an MLD and the frame exchange is with a peer STA that is affiliated with an MLD. Otherwise it is not present.” with “The Basic Multi-Link element is present if dot11MultiLinkActivated is true and the frame exchange is with a peer STA that is affiliated with an MLD. Otherwise it is not present.” |

* + - 1. **Probe Response frame format*(#8271)***

**Table 9-67—Probe Response frame body**

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| 11 | Quiet | The Quiet element is optionally present if dot11SpectrumManage- mentRequired is true or if dot11RadioMeasurementActivated is true or dot11RestrictedTWTOptionImplemented is true(#2215). |
| <Last assigned + 1> | Multi-Link | (#3016)(#1005)(#1896)(#1007)(#2861)(#1898)(#2860)(#1155)(# 1414)(#2581)(#3367)(#3359)(#2859)(#6700)The Basic Multi-Link element is present if the AP is affiliated with an AP MLD. Otherwise it is not present. |
| <Last assigned + 2> | EHT Capabilities | The EHT Capabilities element is present if dot11EHTOptionIm- plemented is true; otherwise it is not present. |
| <Last assigned + 3> | EHT Operation | The EHT Operation element is present if dot11EHTOptionImple- mented is true; otherwise it is not present. |

* + - 1. **Authentication frame format*(#8272)***

**Table 9-68—Authentication frame body**

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| <Last assigned + 1> | Multi-Link | (#6700)(#4002)The Basic Multi-Link element is present if the STA is affiliated with an MLD and the frame exchange is with a peer STA that is affiliated with an MLD. Otherwise it is not pres- ent. |