IEEE P802.11
Wireless LANs

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| LB 271 Resolution for CIDs in Quarantine – Part 3 |
| Date: November 2, 2022 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Alfred Asterjadhi |  |  |  |  |
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 Abstract

This submission proposes resolutions for the following CIDs that are currently in quarantine:

* **Kaiying:** 15888, 16963, 16966, 17850, 18293
* **Laurent:** 15013, 15053, 15088, 15404, 15519, 15542, 15674, 15698, 15970, 15971, 15972, 16275, 16449, 16452, 16484, 16485, 17239, 17296, 17332, 17333, 17361, 17529, 17541, 17628, 17793, 17837, 17994, 18001, 18128, 18132, 18165, 18235, 18236, 18237, 18275, 18299,
* **Li-Hsiang:** (pending SP: 23/958r1)
* **Liwen:** 15032, 15418, 15623, 15925, 16106, 16383, 16432, 16667, 16935, 16936, 17367
* **Mike:** 15067, 15142, 15194, 15195, 15196, 15197, 15512, 16368, 18019, 18283
* **Michail:** 15062
* **Ming:** 15559, 15707, 15975, 16027, 16031, 16196, 16339, 16446, 16447, 16659, 16850, 17365, 17844, 17900, 17991, 17992, 18113, 18202, 18250
* **Minyoung:** 15005, 15016, 15073, 15074, 15084, 15449, 15450, 15472, 15564, 15614, 15615, 15619, 15633, 15655, 15658, 15659, 15701, 15703, 15870, 15927, 16054, 16097, 16221, 16307, 16308, 16401, 16434, 16553, 16625, 16657, 16658, 16676, 16677, 16824, 16899, 17010, 17840, 17867, 17868, 17869, 17876, 17877, 17990
* **Kumail:** (35Y, 15N, 26A)(pending status)15908, 16402

**Revisions:**

* Rev 0: Initial version of the document.
* Rev 1: With updates from whatever has been received until AM1 of Wednesday. Pending the update of the resolution boxes with the document numbers. We will use the following format: REJECTED – “This CID is discussed on July 6, 2023, in 11-23/xxxx and the group could not reach consensus on a resolution. The SP result was: X, Y, Z (if an SP was run)”

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** | **Commenter** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| **Kaiying** |
| 15888 | Chunyu Hu | 35.3.19.3 | 575.29 | The description in NOTE 2 seems to the baseline, why need to call out here? | Change to refer to the baseline or call out the difference explicitly. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16963 | Mark RISON | 35.3.19.1 | 574.52 | "shall set to 1" should be "shall be set to 1" | As it says in the comment | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16966 | Mark RISON | 35.3.19.3 | 575.28 | "in process for switching itsoperating channel/class" should be "in the process of switching itsoperating channel/class" | As it says in the comment | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17850 | Yunbo Li | 35.3.19.2 | 574.52 | Based on this sentence, it will exclude other cases to use TBTT Info Field Type equal to 1 and TBTT Info Field Length equal to 3. This is a big change on the original usage of TBTT Info Field Type and TBTT Info Field Length subfields | If the reported AP is operating on the nonprimary link, the corresponding TBTT Information Field Type and TBTT Information Field Length subfields shall be set to 1 and 3, respecitively. The commenter will bring the contribution. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18293 | kaiying Lu | 35.3.19.3 | 575.29 | Since an NSTR mobile AP MLD will not transmit Beacon frames on the non-primary link, the note here should clarify that the non-AP MLD can determine that the AP operating on the nonprimary link that is in process of channel switching has resumed BSS operation on the new operating class/channel when the most recently received multi-link element stops including the Max Channel Switch Time element corresponding to the non-primary link. That is the difference from the channel switch baseline procedure for regular AP MLD case. | Change the note to: "The non-AP MLD can determine that the AP operating on the nonprimary link that is in process of channel switching resumed BSS operation on the new operating class/channel when the most recently received multi-link element stops including the Max Channel Switch Time element corresponding to the nonprimary link". | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| **Laurent** |
| 15013 | Gabor Bajko | 9.4.2.217 | 0.00 | CSA and Max Channel Switch Time element in CSA may be used to signal a change in the channel which is not both a BSS operating channel frequency and bandwidth change. | add clarification to the spec that CSA and Max Channel Switch Time element in CSA can also be used to signal other changes in the channel (eg puncturing).The 'current' channel and 'new' channel may be the same in case of puncturing. | REVISEDThis CID is discussed on May 12, 2023 with 23/0792r2, but no straw poll is conducted yet.This CID is discussed on May 11, 2023 with 23/0792r1, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15053 | Xiangxin Gu | 35.3.7.1.1 | 513.26 | A non-AP MLD that performs multi-link (re)setup on at least two links with an AP MLD that sets the TID-To-Link Mapping Negotiation Support subfield of the MLD Capabilities field of the Basic Multi-Link element to a nonzero value shall support TID-to-link mapping negotiation with the TID-To-Link Mapping Negotiation Support subfield of the MLD Capabilities field of the Basic Multi-Link element it transmits to at least 1.According to annex b EHTM10.14, TID-to-Link Mapping is optional. Here it is mandatory to non-AP MLD. Please clarify. | as the comment | REVISEDThis CID is discussed on May 31, 2023 with 23/0588r5. The straw poll result on proposed resolution (Option 1) was 16 Yes, 19 No, 24 Abstain.This CID is discussed on April 12, 2023 with 23/0588r2, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15088 | Minyoung Park | 35.3.12.4 | 540.54 | In the following sentence, since the AID Bitmap element indicates Per-Link Traffic Indication Bitmap subfiels included in the Multi-Link Traffic Indication element in the Link Recommendation frame, the AID Offset subfield is not needed:"-- The Multi-Link Traffic Indication element includes Per-Link Traffic Indication Bitmap subfield(s), in the Per-Link Traffic Indication Bitmap List field, which correspond(s) to the AID(s) of the nonAP MLD(s), starting from the bit number k of the AID bitmap of the AID Bitmap element carried in the Link Recommendation frame. The AID Offset subfield of the Multi-Link Traffic Control field of the Multi-Link Traffic Indication element contains the value k. The order of the ... " | Revise the sentence as follows by deleting the part related to the AID Offset subfield and k:"-- The Multi-Link Traffic Indication element includes Per-Link Traffic Indication Bitmap subfield(s), in the Per-Link Traffic Indication Bitmap List field, which correspond(s) to the AID(s) of the non-AP MLD(s) indicated in the Partial AID Bitmap subfield of the AID Bitmap element carried in the Link Recommendation frame. The order of the ..."Also make the following change in 9.4.2.315 (Multi-Link Traffic Indication element) in P294L34:"The AID Offset subfield indicates a bit numbered k of the traffic indication virtual bitmap when the Multi-Link Traffic Indication element is included in the Beacon frame. When the Multi-Link Traffic Indication element is included in the Link Recommendation frame, the AID Offset subfield is reserved." | REVISEDThis CID is discussed on March 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15404 | John Wullert | 35.3.7.1.1 | 513.33 | The requirement regarding non-AP MLDs and TID-to-Link mapping seems to be written backwards, making it confusing. Given the conditions in the requirement, it is saying that non-AP MLDs that do not support TID-to-Link mapping must not attempt to set up multiple links with AP MLDs that support TID-to-Link mapping. | Rephrase as "A non-AP MLD that does not support TID-to-link mapping negotiation with the TID-To-Link Mapping Negotiation Support subfield of the MLD Capabilities field of the Basic Multi-Link element it transmits to at least 1 shall not perform multi-link (re)setup on more than one link with an AP MLD that sets the TID-To-Link Mapping Negotiation Support subfield of the MLD Capabilities field of the Basic Multi-Link element to a nonzero value." | REVISEDThis CID is discussed on May 31, 2023 with 23/0588r5. The straw poll result on proposed resolution (Option 1) was 16 Yes, 19 No, 24 Abstain.This CID is discussed on April 12, 2023 with 23/0588r2, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15519 | Chaoming Luo | 35.3.4.2 | 492.46 | The sentence is confusing. What is the AP MLD that corresponds to the nontransmitted BSSID? | Change to:If either the Address 1 field or the Address 3 field of the multi-link probe request is set to the MAC address of the AP that is affiliated with the targeted AP MLD and that corresponds to a nontransmitted BSSID, then the AP MLD ID subfield shall not be present in the Probe Request Multi-Link element of the multi-link probe request. | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15542 | Chaoming Luo | 35.3.12.4 | 538.48 | Beacon shall be broadcast addressed, whilst Link Recommendation frame may be individually addressed or broadcast addressed. And the word "AP's indication" is not consistent with previous sentences. | Change: The AP's indication may be carried in a broadcast or a unicast frameTo: The Link Recommendation frame may be Individually addressed or broadcast addressed. | REVISEDThis CID is discussed on March 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15674 | Yanchao Xu | 35.3.4.1 | 490.01 | The D3.0 only has requirement of max value for the TBTT offset (<=254 TUs)between differerent APs with the same AP MLD. And there is no requirement/note to illustrate the minimum value for the TBTT offset between APs with the same AP MLD.Assume that two APs in same AP MLD have very close TBTT, and there are two STAs which are in doze state while only STA one link0 listens the Beacon. While one STA0 on link0 firstly receives Beacon on link0, and the Beacon on link0 indicates there is buffererd (groupcast) frames on link1, there is possibility that the remaining time for STA MLD to wake up STA1 on link1 is not large enough, as the AP1 on link1 may already send the buffered groupcast frames due to the close TBTT offset between AP0 and AP1 | Add a requirement or at least add a note to illustrate this issue caused by close TBTT offset.For example, a note as below may be added in the same paragragh,"Note - the TBTT offset between two APs affiliated with the same AP MLD should not be two small, as the small TBTT offset may cause the associated STAs have not enough time to wake up if only one STA is listening Beacon on one link" | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15698 | Sanghyun Kim | 35.3.11 | 531.41 | The baseline restricts STAs from transmitting until they receive an enabling signal (such as a Beacon frame) from the AP on the new channel. However, non-AP MLD can perceive the completion of a channel switch based on information acquired through a link other than the one where the channel switch was performed. Therefore, 11be should allow non-AP MLDs to transmit on link 1 if they perceive the completion of a channel switch on link 1 through a frame received on link 2. (May help with non-AP MLD power saving) | Please allow non-AP MLDs to perform transmissions when they confirm the completion of a channel switch on a specific link through another link. Furthermore, the AP MLD can notify the completion of a channel switch on a specific link by sending unsolicited Probe Response frames to other links. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15970 | Binita Gupta | 35.3.4.1 | 491.37 | The AP MLD 2 may have an AP which is operating on the same channel as the reporting AP but it is a nontransmitted BSSID. In that case also RNR should include APs of the AP MLD 2. So, do we really need the 2nd condition to be true? | Clarify the behavior when 2nd condition may not be true as explained in the comment. | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15971 | Binita Gupta | 35.3.4.1 | 491.40 | Is it correct understanding that RNR advertises collocated APs from another MLD only if these are part of the same multiple BSSID set and if so why? Add text or a Note to clarify if co-located APs of another MLD are not part of same multiple BSSID set as reporting AP then whether these are advertised in the RNR or not? | Clarify requirement as per comment. | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15972 | Binita Gupta | 35.3.4.2 | 492.46 | Clarify why is AP MLD ID subfield not present in the ML probe request sent for to a nontransmitted BSSID? Similarly why AP MLD ID subfield is needed when ML probe request is sent for the responding AP as described in next para line 53? | Add Note to clarify why AP MLD ID is included in one case and not in the other. | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16275 | Ryuichi Hirata | 35.3.7 | 513.21 | For Multi-link load balancing, information of other links such as link utilization, number of STAs, link availability should be indicated in A-Control field. | as in the comment. | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16449 | Laurent Cariou | 35.3.12.4 | 540.58 | There is not real need for AID offset in the case of link recommendation frame cause the range of STAs is already defined in the AID Bitmap element. | Make the AID offset reserved in that situation | REVISEDThis CID is discussed on March 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16452 | Laurent Cariou | 9.4.2.170.2 | 241.10 | Definition of All Updates Included is the correct definition. However, there has been changes that are incorrect in 35.3.10 that redefine wrongly that field. Please change 35.3.10 to reflect the correct definition. | as in comment | REVISEDThis CID is discussed on May 12, 2023 with 23/0792r2, but no straw poll is conducted yet.This CID is discussed on May 11, 2023 with 23/0792r1, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16484 | Arik Klein | 35.3.7.1.1 | 513.33 | The current (very long) sentence is unclear with the requirement for the non-AP MLD to support the TID-To-Link mapping:" A non-AP MLD that performs multi-link (re)setup on at least two links with an AP MLD that sets the TID-To-Link Mapping Negotiation Support subfield of the MLD Capabilities field of the Basic Multi-Link element to a nonzero value shall support TID-to-link mapping negotiation with the TID-To-Link Mapping Negotiation Support subfield of the MLD Capabilities field of the Basic Multi-Link element it transmits to at least 1". Please revise as suggested. | Consider revising the sentence as follows:" A non-AP MLD that performs multi-link (re)setup on at least two links with an AP MLD that sets the TID-To-Link Mapping Negotiation Support subfield of the MLD Capabilities field of the Basic Multi-Link element to a nonzero value, shall support TID-to-link mapping negotiation \*by setting\* the TID-To-Link Mapping Negotiation Support subfield of the MLD Capabilities field of the Basic Multi-Link element it transmits to \*a value of 1, at least\*." | REVISEDThis CID is discussed on May 31, 2023 with 23/0588r5. The straw poll result on proposed resolution (Option 1) was 16 Yes, 19 No, 24 Abstain.This CID is discussed on April 12, 2023 with 23/0588r2, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16485 | Arik Klein | 35.3.7.1.1 | 513.38 | Please delete the following sentence, as the dot11EHTBaseLineFeaturesImplementedOnly MIB variable is removed: "An MLD with dot11EHTBaseLineFeaturesImplementedOnly equal to true shall not set the TID-To-Link Mapping Negotiation Support subfield of MLD Capabilities field of the Basic Multi-Link element to 3" | As in comment | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17239 | Sigurd Schelstraete | 35.3.7.1.1 | 513.43 | Editor's Note needs to be addressed | See comment | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17296 | Hanqing Lou | 35.3.7.1.1 | 513.23 | Do wireless functionalities mentioned here include transmitting of class 1 and 2 management frames and frames mentioned in the previous paragraph? Are they allowed to transmit? | Please clarify | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17332 | Alfred Asterjadhi | 35.3.7 | 513.30 | How about control frames? Do they follow the map? E.g., can I send a BAR with TID 0 in a link that is only enabled for other TIDs? | As in comment. | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17333 | Alfred Asterjadhi | 35.3.7 | 513.37 | Capability at a STA does not depend on the capability of the AP. Rephrase to say that a non-AP MLD (that supports more than one link) shall support TID to link mapping, | As in comment. | REVISEDThis CID is discussed on May 31, 2023 with 23/0588r5. The straw poll result on proposed resolution (Option 1) was 16 Yes, 19 No, 24 Abstain.This CID is discussed on April 12, 2023 with 23/0588r2, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17361 | Alfred Asterjadhi | 35.3.7.1.6 | 518.43 | How does the STA know from which TID the pending BUs are so that it can send the PS-Poll in the link that is mapped to that TID? | As in comment. | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17529 | Brian Hart | 9.2.4.5.1 | 222.25 | As expressed, we have conditions for all STAs using APSD and no STAs using APSD, but no conditions if APSD is used on some links but not other links (kixed usage). This is badly written but works if APSD is an MLD level protocol but that doesn't seem to be the case, since P517L41 and P537L43 imply APSD is a per-link agreement not a per-MLD agreement. Or, this is incomplete if APSD is a per-link agreement | a) Define clearly in clause 35 if APSD is per link or per MLD agreement, b) if per link, then extend this to account for the mixed usage case, c) if at MLD level, then rewrite for MLD not "all STAs affiliated ..." | REVISEDThis CID is discussed on May 12, 2023 with 23/0792r2, but no straw poll is conducted yet.This CID is discussed on May 11, 2023 with 23/0792r1, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17541 | Brian Hart | 9.4.2.36 | 230.54 | <Last assigned +1/2/3> is vague | Option 1) Assign these subelement IDs (e.g., ask the ANA for an assignment). Option 2) (preferred) update fig 9-1005 in 9.4.3 to include the optional Element ID Extension field as shown in Fig 9-193 then simplify all this so EHT Capabilities subelement == EHT Capabilities element, EHT Operation subelement == EHT Operation element, Basic ML subelement == Basic ML element. | REVISEDThis CID is discussed on May 12, 2023 with 23/0792r2, but no straw poll is conducted yet.This CID is discussed on May 11, 2023 with 23/0792r1, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17628 | Brian Hart | 35.3.11 | 533.15 | It is hard for an AP to switch to a DFS channel without disrupting assoc clients because of the long CAC. Option 1) Quiet element on serving channel during CAC then CSA/ECSA with short MCST after DFS channel is proven to be clear. If first/second/third/... DFS channels checked holds radar then multiple Quiet intervals before CSA/ECSA. CSA/ECSA is only used when new DFS channel is known.Option 2) AP sends CSA/ECSA up front. But if checked channel has radar, clients are left hanging; AP now has to check a new channel and somehow report that new channel (if & when the check is successful) to the clients, perhaps via other APs in the AP MLD. But the language here seems to prohibit that: "the Channel Switch Announcement element and the Extended Channel Switch Announcement element shall not be included in the per-STA profile of the affected AP in the Beacon and Probe Response frames" | 1) Add explanation for these two options. 2) In the second option, if the RNR can help point to the planned new channel, then describe that. Otherwise, remove the restriction at P533L16 | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17793 | Binita Gupta | 35.3.4.1 | 491.47 | Need to clarify whether RNR carried in the Beacon frame of a transmitted BSSID includes or does not include the nontransmitted BSSIDs in the TBTT Information fields. Description in this paragraph indicates that all affiliated APs of AP MLD 2 are reported in the RNR which will also include the nontransmitted BSSID itself if AP MLD 2 was MLD corresponding to a nontransmitted BSSID. | Clarify RNR related behavior as per the comment. | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17837 | Yunbo Li | 35.3.11 | 534.48 | what does the dash line mean in Figure 35-18? Same comment for Figure 35-19. | remove the dash line if it is not necessary. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17994 | Vishnu Ratnam | 35.3.12.4 | 541.10 | A mechanism should be provided for an AP affiliated with an AP MLD to recommend to a STA affiliated with a non-AP MLD to wake up STAs operating on other links to receive BUs when the traffic buffer at AP MLD is large. | Suggest to incorporate changes in proposal 11-22/1201r6 to resolve this issue. | REVISEDThis CID is discussed on March 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18001 | Yanjun Sun | 35.3.11 | 531.52 | Channel Switch Wrapper element is missing from the list | Add the element to be consistent with the text in 35.15.3 | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18128 | Abhishek Patil | 35.3.7.1.1 | 513.40 | The MIB dot11EHTBaseLineFeaturesImplementedOnly has been deleted from the spec. | Replace the sentence to be consistent with the resolution for CID 10213 (and as it appeared in D2.3): "An MLD shall not set the TID-To-Link Mapping Negotiation Support subfield of MLD Capabilities field of the Basic Multi-Link element to 3." Also, remove the EDITOR's NOTE | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18132 | Abhishek Patil | 35.3.7.1.1 | 515.01 | The 2nd bullet (P514L52) of paragraph on P514L47 already covers the cases (except MMPDU) covered in P515L1. | Delete the paragraph starting L1 of P515, along with both the bullets, the unless clause, and the two NOTEs that follow. Update the 2nd bullet of paragraph on P514L47 to cover the MMPDU case. | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18165 | Abhishek Patil | 35.3.12.4 | 540.55 | Is the 'k' based on AID Offset of ML Traffic IE or offset from the AID Bitmap IE? Please clarify. | As in comment | REVISEDThis CID is discussed on March 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18235 | Li-Hsiang Sun | 35.3.11 | 531.60 | add channel switch wrapper element in the list of elements that can be included in basic ML element in beacon or probe response frame for a reported link in case of reported link puncturing pattern change | as in comment | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18236 | Li-Hsiang Sun | 35.3.11 | 534.19 | After the last beacon on the current channel of the reported link, the reporting link advertises Max Chanel Switch Time element for the affected link. However, the value of this field is dependent on the time of channel access on the reporting link and it is dynamic based on medium contention. This affects the generation of MIC for the protected beacon frame on the reporting linkThe above bahaviors of changing field values/MIC based on channel access time is not desirable. | The value of Max Channel Switch time after the affected AP 's last beacon on the current channel and before the 1st Beacon on the new channel, and/or the values of channel switch count/quiet count/DTIM count should be the same as the values carried in the most recent beacon on the reporting link. The reference point of max channel switch time/count should be based on the most recent TBTT of the reporting link (TBTT at the beginning of the current BI). This enables reporting link transmitter to keep same field values for a BI duration independent of channel access.Change P533L14 to "After the estimated channel switch time, ...The value carried in the Switch Time field indicates the estimated time delta between the most recent TBTT of the reporting link (TBTT at the beginning of the current BI), and the expected time of the first Beacon frame in the new channel on the reported link, or the estimated time delta between the most recent TBTT of the reporting link and the expected time that non-primary link BSS resumes operation in the new channel, expressed in TUs"Change P246L60 to "After the last beacon is transmitted on the reported link, the Switch Time field indicates the estimated time delta between the most recent TBTT of the reporting link (TBTT at the beginning of the current BI) and the expected time of the first Beacon in the new channel on the reported link, , or the estimated time delta between the most recent TBTT of the reporting link and the expected time that non-primary link BSS resumes operation in the new channel, expressed in TUs" | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18237 | Li-Hsiang Sun | 35.3.11 | 534.56 | From Fig 35-18, the quiet count value seems depend on the channel access time of the association response frame, For example, if the frame is sent on link 2 before the last link 1 TBTT before quiet duration, then Quiet count=1. If the frame is delayed due to channel access and is sent after the last link 1 TBTT before quiet duration, then Quiet time needs to be changed to 128.The above bahaviors of changing field values based on channel access time is not desirable. | The of channel switch count/quiet count/DTIM count should be the same as the values carried in the most recent beacon on the reporting link. The reference point of the count should be based on the most recent TBTT of the reporting link (TBTT at the beginning of the current BI). This enables reporting link transmitter to keep same field values for a BI duration independent of channel access.Add in 35.3.11 "The value of channel switch count, quiet count or DTIM count advertised by the reporting link for an affected/reported link, is the value that is in effect on the affected/reported link at the most recent TBTT of the reporting link (TBTT at the beginning of the current BI)."Change Fig 35-18 to have (Re)Association Response frame having the same count value as the beacon prior on the reporting link. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18275 | Yongho Seok | 35.3.7.1.1 | 513.39 | "An MLD with dot11EHTBaseLineFeaturesImplementedOnly equal to true shall not set the TID-To-Link Mapping Negotiation Support subfield of MLD Capabilities field of the Basic Multi-Link element to 3."Remove this sentence as dot11EHTBaseLineFeaturesImplementedOnly was removed. | Remove this sentence as dot11EHTBaseLineFeaturesImplementedOnly was removed. | REVISEDThis CID is discussed on April 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18299 | kaiying Lu | 35.3.11 | 533.23 | Does "a second channel switch" change the target operating class/channel? If yes, then the (Extended) Channel Switch Announcement element shall be included. If not, then "The value carried in the Switch Time field indicates the adjusted estimated time of the first Beacon frame in the new channel" is good enough. Please clarify the second channel switch. | As in comment. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| **Li-Hsiang** |
|  |  |  |  |  |  |  |
| **Liwen** |
| 15032 | Xiangxin Gu | 35.3.18 | 571.24 | No EMLMR Transition Delay is defined in EML capability | Please add it in EML capability | REVISEDThis CID is discussed on June 12, 2023 with 23/0366r7, but no straw poll is conducted yet.This CID is discussed on May 12, 2023 with 23/0366r3, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15418 | John Wullert | 35.3.18 | 570.43 | The description of EMLMR does not make clear how this feature would be used. Clarifying the operation of the feature will make it easier to understand the elements that make it up. | Add a description of possible operation of EMLMR at the end of the paragaph. For example, "An EMLMR non-AP MLD might use two fully functional radios to monitor separate links. If the EMLMR non-AP MLD receives a soliciting frame from its peer MLD (e.g., AP MLD) on one link, the EMLMR non-AP MLD then switches the radio from the other link to that link to increase the number of spatial streams that it can support." | REVISEDThis CID is discussed on March 29, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15623 | Xiangxin Gu | 35.3.18 | 570.01 | Change satisfy to satisfies | As the comment | REVISEDThis CID is discussed on March 29, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15925 | Zhou Lan | 35.3.18 | 571.23 | There is no EMLMR Transition delay subfield; please fix this by either adding a new subfield or just use the EMLMR Delay subfield for the switch back delay as well. | As in comment | REVISEDThis CID is discussed on June 12, 2023 with 23/0366r7, but no straw poll is conducted yet.This CID is discussed on May 12, 2023 with 23/0366r3, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16106 | Insun Jang | 35.3.18 | 571.24 | Need to change "EMLMR Transition Delay subfield" to "EMLMR Delay subfield" | As in the comment | REVISEDThis CID is discussed on June 12, 2023 with 23/0366r7, but no straw poll is conducted yet.This CID is discussed on May 12, 2023 with 23/0366r3, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16383 | Michael Montemurro | 35.3.18 | 569.62 | The cited sentence is a run-on sentence and is impossible to parse. | Replace the paragraph with the following: "Enhanced multi-link multi-radio (EMLMR) operation allows a non-AP MLD with multiple radios in multiple links to listen on the EMLMR links when the corresponding affiliated STAs are in the awake state. An initial PPDU sent by an AP affiliated with an AP MLD whose Nss satisfy the receiving STA's receiving capabilities are followed by frame exchanges that satisfy the MCS, Nss capabilities in EMLMR mode on the link on which the initial frame was received. | REVISEDThis CID is discussed on March 29, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16432 | Morteza Mehrnoush | 35.3.18 | 571.23 | There is no EMLMR Transition delay subfield; please fix this by either adding a new subfield or just use the EMLMR Delay subfield for the switch back delay as well. | As in comment | REVISEDThis CID is discussed on June 12, 2023 with 23/0366r7, but no straw poll is conducted yet.This CID is discussed on May 12, 2023 with 23/0366r3, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16667 | Liwen Chu | 35.14.2 | 636.26 | It seems 1) this bullet should be applied to 6GHa band, 2) the EHT PPDU should be removed | As in comment | REVISEDThis CID is discussed on March 13, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16935 | Mark RISON | 35.3.18 | 569.64 | "an initial frame sent by an AP affiliated with an AP MLD in a PPDU whose Nss satisfy the receiving STA's receiving capabilities, followed by frameexchanges that satisfy the MCS, Nss capabilities in EMLMR mode on the link on which the initial framewas received." sounds as if the initial PPDU doesn't have the satisfy the STA's MCS capabilities. Also I think it's NSS or N\_SS not Nss | Change to "an initial frame sent by an AP affiliated with an AP MLD in a PPDU whose Nss satisfy the receiving STA's initial receiving capabilities, followed by frameexchanges that satisfy the full capabilities in EMLMR mode on the link on which the initial framewas received." | REVISEDThis CID is discussed on March 29, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16936 | Mark RISON | 35.3.18 | 570.20 | "A non-AP MLD with dot11EHTEMLMROptionActivated equal to true shall indicate the number of spatialstreams NSS that it supports for reception and transmission on any EMLMR link during EMLMR operation " is not clear. Is this the initial NSS supported or the NSS after the first frame? | Clarify | REVISEDThis CID is discussed on March 29, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17367 | Alfred Asterjadhi | 35.14.2 | 635.62 | The purpose of MU RTS Trigger frame is to set the NAV. If it is carried in EHT MU PPDU then it defeats the purpose. Provide a rationale as to why an MU RTS Trigger frame may be carried in EHT MU PPDU, alternatively remove this bullet. | As in comment. | REVISEDThis CID is discussed on March 13, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| **Mike Montemurro** |
| 15067 | Daniel Harkins | 12.4 | 0.00 | SAE changes are gratuitous and bad | Revert back the SAE changes. "SAE entity" is meaningless and distracts from the definition of the protocol. It's OK to mention that between 2 MLDs the MAC addresses are the MLD MACs but that doesn't justify the wholesale changes to this section. | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15142 | Po-Kai Huang | 12.2.10 | 0.00 | Expand privacy enhancement to MLD. Simply allow MLD to randomize MLD MAC address. | Allow non-AP MLD to randomize MLD MAC address by following the rule defined for non-AP STA under non-MLO. Simply allow the affiliated STA of an MLD to use random MAC address during authentication for the affiliated STA and use ranodm MAC address for affiliated STA during assocaition for the link that is not used to exchagne (re)assocaition request/response frame. The commenter is willing to submit the contribution. | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15194 | Henry Ptasinski | 12.4.1 | 396.58 | "SAE entity" is not defined anywhere. | Add a definition for "SAE entity" including what 802.11 architectural components can be an SAE entity. | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15195 | Henry Ptasinski | 12.4.1 | 397.32 | Which two STA does "Between the two STAs," refer to? | Change to "Between two non-MLD STAs," | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15196 | Henry Ptasinski | 12.4.1 | 397.33 | "Peer" is not defined in the context of "begin the protocol when they discover a peer by receiving Beacon or Probe Response frame(s)". Initiation of the protocol should be conditioned on the STA deciding to connect to a specific "peer". | Add a definition for "candidate SAE peer: a remote SAE entity with which the local SAE entity wishes to authenticate" and "SAE peer: a remot4e SAE entity with whith the local STA has completed SAE authentication". (See e.g. peer mesh station and candidate peer mesh station.) Change "when they discover a peer" to "when they discover a candidate SAE peer" and "authentication from a peer" to "authentication from a candidate SAE peer". | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15197 | Henry Ptasinski | 12.4.1 | 397.34 | "Peer" is not defined in the context of "when they receive an Authentication frame indicating SAE authentication from a peer." Initiation of the protocol should be conditioned on the receiving STA choosing to accept the authentication request from the "peer". | Add a definition for "candidate SAE peer: a remote SAE entity with which the local STA entity wishes to authenticate" and "SAE peer: a remot4e SAE entity with whith the local STA has completed SAE authentication". (See e.g. peer mesh station and candidate peer mesh station.) Change "when they discover a peer" to "when they discover a candidate SAE peer" and "authentication from a peer" to "authentication from a candidate SAE peer". | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15512 | Chaoming Luo | 12.5.2.3.1 | 402.26 | The text is not true, since the MPDU is modified (e.g., TA) in MLO case.Same issue in P406L35. | Change to: For non-MLO, MPDUs are not modified when retransmitted.For MLO, MPDUs are not encapsulated with a new PN when retransmitted on another link. | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16368 | Michael Montemurro | 12.2.4 | 395.28 | Need to clarify EAPOL PPDU behavior as well. The SA and DA for an EAPOL PPDU is set to the Supplicant and Authenticator address. In the case of MLO, the SA and DA are set to the respective MLD address. | Add the following at the end of the paragraph at 395.28."The SA and DA address for EAPOL PPDUs shall be set to the applicable Supplicant and Authenticator MLD MAC address." | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18019 | Duncan Ho | 12.7.2 | 415.23 | It's not clear what SA/DA value to use in the A3 of the EAPOL-Key frames in MLO case | Need to clarify. One option is to use the MLD MAC address and another option is to use the link MAC address that corresponds to the link for which the EAPOL-Key frame is transmitted. | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18283 | Yongho Seok | 12.5.2.3.1 | 402.26 | "NOTE 1--Retransmitted MPDUs are not modified on retransmission. For MLO, MPDUs are not encapsulated with a new PN when retransmitted on another link."Retransmitted MPDUs are modified on retransmission when it is retransmitted on a different link because the management frame is re-encrypted. | Fix this bug. | REVISEDThis CID is discussed on May 15, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| **Michail** |
| 15062 | Michail Koundourakis | 35.3.17 | 564.37 | There is no need to transition to active mode on all EMLSR links, one link should be enough. | Allow the non-AP STA to operate with only 1 EMLSR link in PM=0. | "REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore ""REVISED"" - it is just for the sole purpose of showing that this CID has a pending resolution." |
| **Ming** |
| 15559 | Chaoming Luo | 35.3.16.8.3 | 561.05 | A better wording is needed. | Change: an assisted STA that belongs to the NSTR link pair needs assistance in transmitting frames to its associated AP in the other linkTo: the non-AP STA that operating on the other link of the NSTR link pair needs assistance in transmitting frames to its associated AP. | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15707 | Yousi Lin | 35.3.16.8.3 | 561.56 | When a STA of a non-AP MLD is exchanging frames with an AP affiliated with an AP MLD on one of the EMLSR links, the other STAs affiliated with the same non-AP MLD on the EMLSR links lose medium synchronization. This is similar to the blindness issue of the NSTR non-AP MLD operation. The AP assisted medium synchronization recovery procedure has been specified for non-AP MLD with a NSTR pair in IEEE 802.11be Draft 2.0. But the AP assisted medium synchronization recovery procedure or rules for non-AP MLD in EMLSR mode need to be clarified. | Suggest to specify the AP assisted medium synchronization recovery procedure or rules for non-AP MLD operating in EMLSR mode. | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15975 | Binita Gupta | 35.3.4.4 | 495.07 | This clause is missing top level requirement that the AP shall include a Basic ML element in Beacon and Probe Response. It only provides details on what is included within the Basic ML element, but not a top level requirement for including Basic ML element. Similar comment for requirement on line 23 for nontransmitted BSSID case. | Add a first sub bullet "shall include a Basic Multi-Link element" | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16027 | Binita Gupta | 35.3.10 | 528.05 | Why restrict setting All Updates Included subfield to 1 only for elements described in 35.3.11. This mechanism can be used for any critical update for which elements are included in the frame carrying RNR. | Modify text such that the setting of All Updates Included subfield to 1 apply to any updates for which elements are included in the frame carrying RNR. | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16031 | Binita Gupta | 35.3.10 | 528.11 | In current draft only CUF is set when an AP is added or removed from the AP MLD. However since the CUF is set only until next DTIM Beacon, a non-AP MLD can miss indication for these updates if it misses the Beacons where the CUF was set. In last round there was a proposal to consider these events as BSS critical update events and increment BPCC, however group could not reach consensus. Given that these events happen at the MLD level, these are MLD level critical updates and result in updates to MLD level parameters/element. It would be good to define a mechanism which can be used to indicate MLD level parameters critical updates including for AP Addition, AP Removal , MLD level capability updates and advertised TID-to-Link mapping. | Define a mechanism which can be used to indicate MLD level parameter critical updates including for AP Addition, AP Removal, MLD level capability updates and advertised TID-to-Link mapping. | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16196 | Ming Gan | 35.3.16.8.3 | 561.56 | The AAR should be also applied to eMLSR/eMLMR. | Fix the issues mentioned in the comment | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16339 | Yongho Kim | 35.3.16.8.3 | 562.01 | Similar to NSTR STA MLD, EMLSR STA MLD also suffers from lost medium synchronization problem and also applies MediumSyncDelay after returning to EMLSR listening operation. AAR can also be applied to EMLSR operation. In case of non-AP MLD's EMLSR uplink response frame transmission, the current AAR method of NSTR can be applied. In EMLSR non-AP MLD's downlink reception case, QoS Null with AAR control may be transmitted with a response frame, such as the BA frame. | Please make a chage as follows: A STA affiliated with a non-AP MLD with dot11AAROptionImplemented that is equal to true and that belongs to an NSTR link pair or that operates on an EMLSR/EMLMR link shall transmit the AAR Control subfield in a frame that solicits an immediate response or a QoS Null frame with an ack policy set to No Ack to its associated AP affiliated with an AP MLD if it has received a Basic Multi-Link element from the AP with the AAR Support subfield equal to 1 and an assisted STA that belongs to the NSTR link pair or that operates on another EMLSR/EMLMR link needs assistance in transmitting frames to its associated AP in the other link. | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16446 | Laurent Cariou | 35.3.10 | 528.04 | "with the updated elements selected from the elements as described in 35.3.11" was added wrongly last round and is not in the spirit of how this field was originally defined and how it is still defined in subclause 9, which is to be generic and to just indicate whether the updated are included or not. This limitation is not needed. | remove that part of the sentence. | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16447 | Laurent Cariou | 35.3.10 | 528.11 | There is no reason to have a different mechanism for AP removal, than other critical event. And it is impacting the efficiency of the mechanism. Correct it by defining a critical event for AP removal (inclusion of Reconfiguration ML element) so that the BPCC of this AP gets incremented. | as in comment | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16659 | Liwen Chu | 35.3.10 | 257.25 | the information of reported AP's channel switch is not complete information. In 802.11 baseline specification after the channel switch, a STA can do the frme exchanges with the AP in the switched channel without receiving the Beacon in the switched channel. This (switch the chanel in reported AP's link per reporting AP's annoncement) may violate the regulatory requirement, e.g. using the punctured channel, using the Tx power being not allowed. | fix the issue per one of the following 1) mandating the inclusionof full information of reported AP's channel switch, 2) mandating the Beacon reception before the frame exchanges in the new channel when the new channel is acquired from another AP's Beacon | REVISEDThis CID is discussed on May 17, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16850 | Mark RISON | 35.3.15.1 | 548.24 | "The first n bits of N bits are used to indicate that one or more group addressed frames are buff-ered for each AP of the other AP(s) in the same AP MLD in an increasing order of their link IDs " -- this is a bit subtle. Also n not defined | Add a "NOTE---If for example the other APs have link IDs 3, 6 and 7, bit 1 is for the AP with link ID 3 and bit 3 is for the AP with link ID 7." In the cited text change "of the other AP(s)" to "of the other n AP(s)" with n italicised (also make this change at line 47 and next page) | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17365 | Alfred Asterjadhi | 35.3.15.1 | 548.05 | If the APs are scheduling the delivery of group addressed frames on all enabled links then what is the use of this per-link separation of the DTIM bits? | As in comment. | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17844 | Yunbo Li | 35.3.16.8.3 | 561.56 | The cases of EMLSR and EMLMR are missing | please complete the missing case | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17900 | Bo Gong | 35.3.16.8.3 | 562.13 | "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. Moreover there is capability for AP tp support this action and the corresponding condition (not have frame exchanges). It needs to be a shall. | As in the comment | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17991 | Vishnu Ratnam | 35.3.15 | 547.58 | Group addressed management frames are not buffered on all links, unlike group addressed data frames. Thus a nonAP MLD may desire to prioritize reception of group addressed management frames on each link over reception group-addressed data frames. With current indication of pending group-addressed traffic, this is not possible. | Provide an indication in either the TIM element or multi-link traffic indication element to indicate presence of buffered group addressed management frames | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17992 | Vishnu Ratnam | 35.3.15 | 548.05 | Since group addressed data frames are buffered for transmission on all links and the sequence numbers are MLD level, the need for cross-link group addressed frame indication is not clear. Note that with MLO and with multiple BSSIDs, this can eat up significant number of AIDs and can also bloat DTIM beacon. Hence it is better to allow an AP MLD to skip such indication. | Provide an indication field in the MLD Capabilities and Operations subfield transmitted by an AP MLD about whether it shall provide cross-link group addressed frame indication. | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18113 | Abhishek Patil | 35.3.1 | 480.09 | TIM broadcast is disallowed for a non-AP MLD. Therefore, changes to any MLO related features (such as including to Reconfiguration ML IE or T2LM advertisement) must not be added to 11.2.3.15 and instead must be listed in clause 35.3.10 (and cause the BPCC to increment). In other words, BPCC is incremented based on criteria listed in 11.2.3.15 & 35.3.10. Check Beacon field in TIM frame will be incremented only based on criteria listed in 11.2.3.15. The benefit here is that a non-MLO STA will not be affected by any MLO update (which it doesn't care about). | As in comment | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18202 | Liuming Lu | 35.3.16.8.3 | 561.53 | When a STA of a non-AP MLD is exchanging frames with an AP affiliated with an AP MLD on one of the EMLSR links, the other STAs affiliated with the same non-AP MLD on the EMLSR links lose medium synchronization. This is similar to the blindness issue of the NSTR non-AP MLD operation. The AP assisted medium synchronization recovery procedure has been specified for non-AP MLD with a NSTR pair. But the AP assisted medium synchronization recovery procedure or rules for non-AP MLD in EMLSR mode need to be clarified. | Suggest to specify the AP assisted medium synchronization recovery procedure or rules for non-AP MLD operating in EMLSR mode. | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 18250 | Li-Hsiang Sun | 35.3.10 | 528.11 | The critical update or nonTXBSSID critical update flag should be set when an advertise T2LM element is added | add "or if the frame incldues a new TID-to-Link Mapping element"add similar change to p529 L17 | REVISEDThis CID is discussed on April 20, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| **MINYOUNG** |
| 15005 | Matthew Fischer | 35.3.17 | 567.06 | Additional clarification is needed regarding eMLSR non-AP STA behavior | In the cited location within 35.3.17, add the following:While a frame exchanges is occurring on one link of a non-AP MLD operating in EMLSR mode,the EDCAFs operating on other link(s) of the MLD may perform EDCAF backoff.If any such EDCF gains the right to initiate transmissionthe corresponding STA shall not initiate the transmission of a frame of the corresponding AC if there is a non-zero valuein the transition delay timer on the link on which the frame exchange is occurring.In such a case, the STA shall invoke a backoff for the EDCAF associated with that ACas allowed per item i) of 10.23.2.2 (EDCA backoff procedure).And to 10.23.2.2, add a new item \*) to be inserted between items h) and i), appropriately modifying the following list item numbering\*) If explicitly indicated as in 35.3.17 (Enhanced multi-link single radio operation)And also in 10.23.2.2, add the new item number to the list of item numbers found in the following sentence:If the backoff procedure is invoked for reason a) or h) above, CW[AC] and QSRC[AC] shall be left unchanged. | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15016 | Matthew Fischer | 35.3.17 | 565.12 | The eMLSR switch to listening operation language is a bit vague and leaves out a few details. | Change:The non-AP MLD shall be switched back to the listening operation on the EMLSR links after the EMLSR transition delay time last indicated by the non-AP MLD either in the EMLSR Transition Delay subfield of the EML Capabilities subfield in the Common Info field of the Basic Multi-Link element or in the EMLSR Transition Delay subfield of the EMLSR Parameter Update field in the last successfully transmitted EML Operating Mode Notification frame, if any of the following conditions is met and this is defined as the end of the frame exchanges:ToThe non-AP MLD shall initiate a switch to listening operation on the EMLSR linksupon detection of any of the following conditions:ChangeThe non-AP MLD shall be switched back to the listening operation on the EMLSR links after the time duration indicated in the EMLSR Transition Delay subfield after the end of the TXOP.ToThe non-AP MLD shall initiate a switch to listening operation on the EMLSR links immediately after the end of the TXOP.Add the following text after the last bullet item, as new bullets:- The AP affiliated with the AP MLD should not transmit any frame to the non-AP MLD on the EMLSRlinks until after the advertised EMLSR transition delay time of the non-AP MLD has passed, as measured from the detection of the condition that initiated the switch.- The non-AP MLD shall complete an initiated switch back to listening operation on the EMLSR links not later than the EMLSR transition delay time last indicated by the non-AP MLD either in the EMLSR Transition Delay subfield of the EML Capabilities subfield in the Common Info field of the Basic Multi-Link element or in the EMLSR Transition Delay subfield of the EMLSR Parameter Update field in the last successfully transmitted EML Operating Mode Notification frame, as measured from the detection of the condition that initiated the switch. | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15073 | Minyoung Park | 35.3.17 | 563.45 | EMLSR links should be changed to EMLSR link(s) since a non-AP MLD can operate in EMLSR mode when only one EMLSR link is available for the operation. | Replace EMLSR links to EMLSR link(s). Make similar changes throughout the subclause. (e.g., P563L56, P563L62, etc.) | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15074 | Minyoung Park | 35.3.17 | 563.57 | "the bit positions of the EMLSR link bitmap subfield" should be "the bit position(s) of the EMLSR link bitmap" since there could be only one enabled link used for EMLSR mode. | Replace "the bit positions" to "the bit position(s)" | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15084 | Minyoung Park | 35.3.12.4 | 539.20 | For this sentence on setting the Bitmap Size subfield to work, there needs to be information about 'link id offset' that indicates the starting link id index of the Per-Link Traffic Indication Bitmap subfields. | Either remove the sentence or add a subfield that indicates the Link ID offset that indicates the starting Link Id index in each Per-Link Traffic Indication Bitmap subfield. | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15449 | Julien Sevin | 35.3.17 | 564.20 | An AP MLD has not the possibility to propose to a non-AP MLD to initiate the EMLSR mode | Specify a procedure allowing an AP to transmit an EML Operating Mode Notification frame for proposing to a non-AP STA to initiate its EMLSR mode. | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15450 | Julien Sevin | 35.3.17 | 564.47 | An AP MLD has not the possibility to propose to a non-AP MLD to disable the EMLSR mode | Specify a procedure allowing an AP to transmit an EML Operating Mode Notification frame for proposing to a non-AP STA to disable its EMLSR mode. | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15472 | Xiangxin Gu | 35.3.12.4 | 540.17 | It is unnecessary for advertised tid-to-link mapping to have corresponding Per-Link Traffic Indication Bitmap subfield. | As the comment | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15564 | Chaoming Luo | 35.3.17 | 568.06 | The figures 35-26 to 35-30 do not show the what makes EMLSR mode different from the normal mode. They provide little value and make the reader unhappy. | Either remove the examples or revise the figures to show the core of the EMLSR (e.g., mode switch frame exchange, and what happens to the other links when one of the EMLSR links is transmitting or receiving). | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15614 | Sanghyun Kim | 35.3.12.4 | 540.16 | Even if a non-AP MLD has successfully negotiated TID-to-Link mapping, the Per-Link Traffic Indication subfield might not be indicated depending on the TID of the BU for that non-AP MLD.It is neccessary adding a rule for the non-AP MLD that has successfully negotiated TID-to-link mapping and does not receive ML-TIM element. | Please add the following rule:When a non-AP MLD that has successfully negotiated TID-to-link mapping and not all TIDs are mapped to all the enabled links detects that the bit corresponding to its AID is equal to 1 in the TIM element and does not receive the corresponding Per-Link Traffic Indication Bitmap subfield, any non-AP STA affiliated with the non-AP MLD may issue a PS-Poll frame, or a U-APSD trigger frame if the STA is using U-APSD and all ACs are delivery enabled, to retrieve buffered BU(s) from the AP MLD. | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15615 | Sanghyun Kim | 9.4.2.315 | 295.15 | Because the Bitmap Size subfield can be set to the difference between the largest and smallest link ID value amongst the bits that are set to 1 in the Per-Link Traffic Indication Bitmap subfield(s), interpretation of the Per-Link Traffic Indication Bitmap subfield needs to be corrected. For example, if the Bitmap size subfield is determined to be 3-1 = 2 (the largest link ID set to 1 is 3, and the smallest is 1), then B0 in the Per-Link Traffic Indication Bitmap subfield should correspond to Link ID 1, and B2 should correspond to Link ID 3. | Link ID offset information should be provided along with the Bitmap size subfield, and the link ID corresponding to B0 in the Per-Link Traffic Indication Bitmap subfield should be determined based on the information. | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15619 | Sanghyun Kim | 35.3.17 | 593.39 | It may be necessary to verify if the MU-RTS TXS frame, when received by a non-AP STA operating on an EMLSR link, would not be confused with the Initial Control frame. | As in comment | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15633 | Atsushi Shirakawa | 9.4.2.315 | 294.26 | Two octets are assigned to Multi-link Traffic Indication Control field and its main objective is to indicate AID offset.But other indication may be helpful depending on situation. For example doc 22/1381 introduces Link ID offset. If combination of AID offset and other information is allowed, more flexible and efficient indication may be achieved. Extend Multi-Link Traffic Indiation Control field for future flexible use, like preparing more reserved bits. | as in comment | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15655 | Xiangxin Gu | 35.3.17 | 563.42 | It is helpful to have a state transition figure with 3 states: EMLSR disabled mode, EMLSR listening mode and EMLSR frame exchanging mode. | Add the state transition figure. | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15658 | Geonjung Ko | 35.3.17 | 565.39 | Following this text, an MU-RTS TXS Trigger frame can be the initial Control frame. However, when a STA in the EMLSR link received the MU-RTS TXS Trigger frame, it is unclear which sequence the STA should follow. After the CTS frame, the transmitter is the AP and the non-AP STA in the EMLSR operation and the triggered TXOP sharing procedure, respectively. | Please clarify the operation when a STA receives the MU-RTS TXS Trigger frame on the EMLSR link. | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15659 | Geonjung Ko | 35.3.17 | 566.20 | After a STA on the EMLSR link sends a frame during the allocated time by the triggered TXOP sharing procedure, the STA would not receive a PHY-RXSTART.indication primitive since the STA receives a response frame from the AP during the timeout interval. Then the MLD that the STA is affiliated with is switched back to the listening operation during the allocated time. | The STA on the EMLSR link should not be switched back to the listening operation during the allocated time. Also the condition for switching back in p.g. 566, line 20 should be applied only outside the allocated time. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15701 | Yousi Lin | 9.4.1.74 | 218.15 | A non-AP MLD that is in EMLSR mode also has different per-link capabilities. And AP MLD needs to be informed about the capabilities. So EMLMR Supported MCS And NSS Set should be extended for both EMLMR and EMLSR. | as in comment | REVISEDThis CID is discussed on March 14, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15703 | Yousi Lin | 35.3.17 | 564.20 | Allow AP MLD to recommend non-AP MLD to enable EMLSR/EMLMR mode. It is beneficial for AP MLD to manage the network load. | as in comment | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15870 | Chunyu Hu | 35.3.12.4 | 539.22 | The smallest link ID value is not indicated anywhere in the element. Without this info, the bitmap cannot be properly parsed. | Fix the issue. | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15927 | Zhou Lan | 35.3.17 | 563.53 | There were some discussions in the group to allow the EMLSR operation over single-link, however currently some paragraphs are written so that the EMLSR operation is only allowed over more than one link (like page564/line15), and some other paragraphs are mixed (like page563/line53). Please fix this throughout subclass 35.3.17. | As in comment | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16054 | Binita Gupta | 35.3.17 | 563.41 | Clarify if EMLSR operation is supported on a single link, e.g. when an AP is removed and only a single EMLSR link remains for a given non-AP MLD. Similar scenario will happen when a link is disabled which was an EMLSR link for a non-AP MLD and it has only a single EMLSR link enabled. | Clarify requirements for single link EMLSR operation as per comment. | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16097 | Insun Jang | 35.3.17 | 563.41 | Generally, after multi-link setup, a link pair of a non-AP MLD is always considred as STR if it is not indicated as NSTR during multi-link setup. Meanwhile,EMLSR mode is enabled and EMLSR links are set after EML OMN frame is successfully transmited. With this relationship, it is a little bit confused of whether STR or NSTR links can be EMLSR links for which we do not have any descriptions, especially for the relationship between STR/NSTR link pair and EMLSR link set | As in the comment, the relationhip between STR/NSTR link pair and EMSLR link set should be clarified since STR/NSTR link pair is always indicated during multi-link setup | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16221 | Stephen McCann | 3.2 | 61.12 | There is no definition for EMLMR operation. This appears to be similar to EMLSR operation and should have a definition, although the term should equate to "Reduced MLMR operation". | Add the following definition to the clause in alphabetical order:reduced multi-link multiple radio (RMLMR) operation: 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, and to perform a set of frame exchanges on one link of the set, while having limited ability to receive or transmit on the other links of the set. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16307 | Juseong Moon | 35.3.17 | 566.12 | When a non-AP STA affiliated with an EMLSR non-AP MLD performs a TXS operation as defined in 35.2.1.2 and transmits a CTS response to a MU-RTS frame, since it shall switch back after the end of the frame exchanges as defined in 35.3.17 due to not receiving PHY-RXSTART.indication in shared TXOP, it can not perform TXS operation. Therefore, EMLSR non-AP STA MLD's transmission to the AP or to a peer STA is not possible.An additional definition of the end of the frame exchanges (defined in 35.3.17) is needed in order to properly perform the TXS operation for EMLSR MLD. For example, rules with PHY.TXSTART primitives can be used in TXS operation, or the approach described on line 63 of page 566 can be applied. (P566L63: When a non-AP STA affiliated with the non-AP MLD initiates a TXOP, the following applies: The non-AP MLD shall be switched back to the listening operation on the EMLSR links after the time duration indicated in the EMLSR Transition Delay subfield after the end of the TXOP. | As in comment. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16308 | Juseong Moon | 35.3.17 | 565.27 | When a non-AP STA affiliated with an EMLSR non-AP MLD performs a TXS operation as defined in 35.2.1.2, clear description is needed whether MU-RTS TXS trigger frame can be used as initial control frame of EMLSR. | As in comment. | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16401 | Liuming Lu | 35.3.17 | 563.41 | When a STA of a non-AP MLD is exchanging frames with an AP affiliated with an AP MLD on one of the EMLSR links, the other STAs affiliated with the same non-AP MLD on the EMLSR links are blind. This is similar to the blindness problem of the NSTR non-AP MLD operation. The handling of the blindness issue for a non-AP MLD in EMLSR mode may be complex. | Suggest to add a mechanism to control the rights to initiate a TXOP for uplink transmission for non-AP STAs affiliated with a non-AP MLD in the EMLSR links | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16434 | Morteza Mehrnoush | 35.3.17 | 563.53 | There were some discussions in the group to allow the EMLSR operation over single-link, however currently some paragraphs are written so that the EMLSR operation is only allowed over more than one link (like page564/line15), and some other paragraphs are mixed (like page563/line53). Please fix this throughout subclass 35.3.17. | As in comment | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16553 | Arik Klein | 35.3.17 | 563.56 | The following sentence should clarify which bit positions in the EMLSR Link bitmap shall be set to 1, as suggested: "The EMLSR links shall be indicated in the EMLSR Link Bitmap subfield of the EML Control field of the EML Operating Mode Notification frame by setting the bit positions of the EMLSR Link Bitmap subfield to 1" | The sentence should be revised as follows: "The EMLSR links shall be indicated in the EMLSR Link Bitmap subfield of the EML Control field of the EML Operating Mode Notification frame by setting the bit positions \*corresponding to the Link ID value of these links in\* the EMLSR Link Bitmap subfield to 1" | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16625 | Sindhu Verma | 35.3.17 | 567.01 | In the text "The non-AP MLD shall be switched back to the listening operation on the EMLSR links after the time duration indicated in the EMLSR Transition Delay subfield after the end of the TXOP." , the implication is that the non-AP MLD shall be available in listening operation on the EMLSR links not later than after the EMLSR transition delay from the end of the burst. However, the language can be misleading and can seem to suggest that the switching to listening operation starts only after the EMLSR transition delay. This needs to be corrected. | Suggest to change the text to ""The non-AP MLD shall be switched back to the listening operation on the EMLSR links not later than the time duration indicated in the EMLSR Transition Delay subfield after the end of the TXOP" | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16657 | Liwen Chu | 35.3.17 | 571.21 | the frameexchange sequence is not complete: 1) the sequence of TXOP sharing is missing, 2) the NDP ranging sequence is missing, 3) the future 802.11 amendment may add the new sequence, e.g. 11bf | Please complete the allowed sequence. Another option is to generalize the text so that any vaild frame exchange sequence is included. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16658 | Liwen Chu | 35.3.17 | 565.12 | the frameexchange sequence is not complete: 1) the sequence of TXOP sharing is missing, 2) the NDP ranging sequence is missing, 3) the future 802.11 amendment may add the new sequence, e.g. 11bf | Please complete the allowed sequence. Another option is to generalize the text so that any vaild frame exchange sequence is included. | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16676 | Qi Wang | 35.3.17 | 564.35 | "After the successful transmission of the EML Operating Mode Notification frame by the non-AP STA affiliated with the non-AP MLD, the non-AP MLD shall operate in the EMLSR mode and the other non-AP STAs operating on the corresponding EMLSR links shall transition to active mode after the transition delay indicated in the Transition Timeout subfield in the EML Capabilities subfield of the Basic Multi-Link element or immediately after receiving an EML Operating Mode Notification frame from one of the APs operating on the EMLSR links and affiliated with the AP MLD." This sentence specifies that different EMLSR STAs/links enter the EMLSR mode at different times, some at the time of successful transmission of the EML Request frame, some a later time (i.e., when the EML OMN response frame is received or the EMLSR Timeout timer is expired, whichever comes earlier). | Please specify that (1) when the non-AP STA affiliated with the non-AP MLD successfully transmits an EML Operating Mode Notification frame in which the PM bit is set to 1, the non-AP MLD enters the EMLSR mode after the transition delay specified in the Transition Timeout subfield in the EML Capabilities subfield of the Basic Multi-Link element; (2) when the non-AP STA affiliated with the non-AP MLD successfully transmits an EML Operating Mode Notification frame in which the PM bit is set to 0, the non-AP MLD enters the EMLSR mode after the transition delay specified in the Transition Timeout subfield in the EML Capabilities subfield of the Basic Multi-Link element or immediately after receiving an EML Operating Mode Notification frame from one of the APs affiliated with the AP MLD successfully, whichever comes earlier. | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16677 | Qi Wang | 35.3.17 | 563.43 | Please specify that EMLSR can be operated on either STR or NSTR links and add the relevant signaling. Please differentiate the medium sync delay requirement for different EMLSR link pair characteristics. | As in comment. | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16824 | Mark RISON | 35.3.12.4 | 539.20 | "The Bitmap Size subfield of the Multi-Link Traffic Indication Control field should be set to m," and presumaby has to be at least m? | Add "and shall be at least m," with m italic | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16899 | Mark RISON | 35.3.16.8.1 | 560.23 | "perform CCA during frame exchanges that includes the link switch delays between an AP affiliated with anAP MLD and one of the other non-AP STAs operating on the other EMLSR links" is confusing both grammatically ("exchanges that includes") and technically (how do exchanges include link switch delays?) | As it says in the comment | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17010 | Mark RISON | 35 | 0.00 | Why is it EMLSR padding delay but EMLMR delay? | Change EMLMR delay to EMLMR padding delay throughout, ignoring case and underscore/space | REVISEDThis CID is discussed on May 12, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17840 | Yunbo Li | 35.3.12.4 | 539.17 | The indication of Per-Link Traffic Indication Bitmap always start from Link 0. Considering some Link ID may not used (e.g. link removed), Link ID offset could be used to save the signaling overhead. | Introduce link ID offset for Per-Link Traffic Indication Bitmap to save overhead. | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17867 | Gaurang Naik | 35.3.17 | 566.12 | If AP or non-AP STA's backoff counter expires during the EMLSR transition delay, it must select a new backoff counter.Otherwise, if the STAs whose backoff counter reached 0 keep their backoff counter at 0 until the end of the EMLSR transition delay, multiple STAs can initiate transmissions immediately following the EMLSR transition delay causing collisions. | Specify that if an AP or non-AP STA's backoff counter reaches 0 during EMLSR transition delay, the STA picks a new backoff counter. | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17868 | Gaurang Naik | 35.3.17 | 566.12 | It is not clear how long after the transition delay ends the non-AP MLD starts the listening operation. Clarify the text for non-AP MLD stating that it starts the listening operation at the expiration of the EMLSR transition delay so that expectation from both AP and non-AP MLD are in sync. | As in comment | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17869 | Gaurang Naik | 35.3.17 | 567.01 | It is not clear how long after the transition delay ends the non-AP MLD starts the listening operation. Clarify the text for non-AP MLD stating that it starts the listening operation at the expiration of the EMLSR transition delay so that expectation from both AP and non-AP MLD are in sync. | As in comment | REVISEDThis CID is discussed on May 10, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17876 | Gaurang Naik | 35.3.17 | 564.20 | The EML Operating Mode Notification frame sent by the AP to enable the EMLSR mode must be preceded with an initial Control frame | As in comment | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17877 | Gaurang Naik | 35.3.17 | 564.47 | The EML Operating Mode Notification frame sent by the AP to disable the EMLSR mode must be preceded with an initial Control frame | As in comment | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 17990 | Vishnu Ratnam | 9.4.1.74 | 217.13 | Having separate bits to indicate EMLSR mode, EMLMR mode, EMLSR parameter update, etc in the EML OMN frame is inefficient. | Define a EML Mode field containing 3 or 4 bits to indicate the different modes for the EML OMN frame. Change names of fields to be more generic by removing "EMLSR/EMLMR" in the name of the Link Bitmap. | REVISEDThis CID is discussed on March 14, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| **Kumail** |
|  |  |  |  | . |  | Pending SP in 754 |
| 15848 | Chunyu Hu | 9.4.2.199 | 244.50 | When the Restricted TWT Schedule Info has value 3, the schedule doesn't correspond to the transmitting AP, the Broadcast TWT ID needs to be re-interpreted otherwise there can be duplicated value. | As in comment. | REVISEDThis CID is discussed on May 18, 2023 with 23/0458r8. The straw poll result is 45 Yes, 27 No, 30 Abstain.This CID is discussed on May 16, 2023 with 23/0458r5, but no straw poll is conducted yet.Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 15908 | Xiaofei Wang | 9.4.2.199 | 245.12 | What is the purpose of indicting an idle R-TWT schedule? Does it imply that STA should NOT request membership or it should request membership? It is not clear from the text. Please clarify | please clarify the desired behavior | REVISEDThis CID is discussed on March 16, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |
| 16402 | Liuming Lu | 35.8.6 | 621.35 | 11be has specified latency sensitive traffic with predictable latency, and QoS Characteristics element that defines the characteristics and QoS expectations of a traffic flow including the parameter of Delay Bound. Therefore for the STAs (especilly the member r-twt STAs) that need to deliver Qos data frames of the latency sensitive traffic with delay bound, the urgencies for the delivery of the Qos data frames may be different for the r-TWT TIDs of the same STA or different STAs, and AP needs to schedule the delivery of the Qos data frames of the latency sensitive traffic according to their urgencies based on the current time and the delay bound of the traffic. But the currently specified BSRP trigger frame doesn't consider to aquire the urgency-bases BSR information, which would lead to the imprecisely scheduled dilivery of the QoS data frames of latency sensitive traffic for AP. | The mechansm needs to be specified to ensure that the delay bound (if available) for the uplink or downlink direction corresponding to the QoS Data frames of the R-TWT TID should be met during a restricted TWT SP. | REVISEDThis CID is discussed on April 6, 2023, but no straw poll is conducted yet. Please ignore "REVISED" - it is just for the sole purpose of showing that this CID has a pending resolution. |