IEEE P802.11  
Wireless LANs

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| LB266 – CR for CIDs related to 35.3.4.1 | | | | |
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| **CID** | **Clause Number(C)** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 10225 | 35.3.4.1 | 414.30 | This requirement lists three conditions that must be true, then the required behavior and then one additional condition. It would be easier to follow if the last condition was included in the initial list. | Add the following bullet to the list: "the APs of the other AP MLD (AP MLD 2) are not already reported in Beacon frames and broadcast Probe Response frames transmitted by an AP in the same co-located AP set as the reporting AP and operating on the same channel as the reporting AP." Remove the text at the end of sentence that begins "unless the APs of the other AP MLD (AP MLD 2) are already...". | Revised – agree with the commenter. Apply the changes marked as #10225 in this document. |
| 10412 | 35.3.4.1 | 414.55 | If an AP is affiliated with an AP MLD, it shall not have a BSSID index set to 255. The term 'BSSID index'should be changed to 'MLD ID' to keep consistent with similar description (The MLD ID subfield is set to 255 if the reported AP is not part of an AP MLD ) in P204L26 | as the comment | Revised – both statements are true and needed. Add to the sentence that the value of the MLD ID shall not be set to 255 and that the value of the BSSID Index shll not be set to 255. Apply the changes marked as #10412 in this document. |
| 10484 | 35.3.4.1 | 414.55 | "If an AP is affiliated with an AP MLD, it shall not have a BSSID index set to 255." I thought it is required for an AP to be affiliated with AP MLD. If so, remove the "if" from this statement. | as in comment | Revised – agree with the commenter. Clarify the rule for an EHT AP, which is always affiliated with an AP MLD. Apply the changes marked as #10484 in this document. |
| 10612 | 35.3.4.1 | 414.17 | No need to list out each field that will be carried in the TBTT Info field. The value in TBTT Info Length field is sufficient to determine which fields are carried for the reported APs. Therefore, it is sufficient to states that the length is 16 (and provide a reference to the table in 9.4.2.170.2).  Same comment applies to several instances in this subclause. | As in comment | Revised – agree with the commenter. Apply the changes marked as #10612 in this document. |
| 10613 | 35.3.4.1 | 414.48 | Isn't this co-hosted BSSID set? | Replace "same co-located AP set as the reporting AP and operating on the same channel as the reporting AP." with "same co-hosted AP set as the reporting AP." | Reject – I could indeed be part of a co-hosted BSSID set or part of a multiple BSSID set. If part of the MBSSID set, there is only one AP (the transmitted BSSID) sending the beacon frames. Propose to replace co-located set with co-hosted set and add a condition so that the reporting AP is not a nontransmitted BSSID. Apply the changes marked as #10613 in this document |
| 11409 | 35.3.4.1 | 414.54 | Capitalize 'l' in 'link ID' since it is referring to the subfield. | Change 'link ID' to 'Link ID' | Accept |
| 11552 | 35.3.4.1 | 414.54 | "link ID" should be "Link ID" | as in comment | Accept |
| 11553 | 35.3.4.1 | 414.61 | This rule has implicit requirements for beacon intervals for different APs affiliated with the same AP MLD; the rule should be explictly stated. | as in comment | Reject – the rule would be difficult to express as it’s dependent on the BI of both APs. Explicitly stating this implication is not needed as long the rule expressed here is respected. |
| 11723 | 35.3.4.1 | 414.12 | The first paragraph in 35.3.4.1 does not consider the case of a single AP within an AP MLD. | Add a paragraph with normative text which addresses the comment. | Revised – agree with the commenter. Add “if any” at the end of the sentence to cover the case of a single AP in AP MLD. Apply the changes marked as #11723 in this document. |
| 11724 | 35.3.4.1 | 414.21 | The second paragraph in 35.3.4.1 does not consider the case of a single AP within an AP MLD. | Add a paragraph with normative text which addresses the comment. | Revised – agree with the commenter. Add “if any” at the end of the sentence to cover the case of a single AP in AP MLD. Apply the changes marked as #11724 in this document. |
| 11725 | 35.3.4.1 | 414.28 | Missing period | as in comment | Accept |
| 11726 | 35.3.4.1 | 414.55 | Since all EHT APs are affiliated with an AP MLD, the 'if' condition in this line is incorrect. | Rewrite the sentence to: "An AP affiliated to AP MLD shall not have a BSSID index set to 255." | Accept |
| 11774 | 35.3.4.1 | 414.21 | What (AP MLD 1) refers to? | clarify | Revised – add a note to clarify that we use numbers here to differentiate the different APs and AP MLDs to ease the understanding of the sentence. Apply the changes marked as #11774 in this document. |
| 13625 | 35.3.4.1 | 414.27 | If AP2 is not affliated with the AP MLD 1 and if other APs (say AP3 and AP4) affiliated with AP MLD 1 are not members of the same MBSSID set as that of AP1, then AP2 does not need to include in RNR the TBTT Information fields corresponding to either AP3 or AP4. | Please correct the AP behavior by including an exception-rule as highlighted in the comment.. | Reject – AP2 is the transmitted BSSID and AP1 the non transmitted BSSID. AP 2 can therefore not be part of AP MLD1. Other APs affiliated with AP MLD1 (that the commenter calls AP3 and 4) can not be operating on the same channel as AP1 and can not be part of the same MBSSID set as AP1. The example mentioned in the comment therefore does not exist. |
| 13626 | 35.3.4.1 | 414.47 | The "Unless" part is redundant because of the second bullet above which ensures that none of the APs affiliated with AP MLD 2 operates on the same channel as the reporting AP. | Please consider removing the exception rule towards the end of this paragraph. | Revised – the “unless” part is not redundant, it mandates only one AP on that channel to report the AP MLD. Placing this condition at the end of the sentence makes its understanding difficult and explains the misunderstanding. As suggested by the commenter of #10225, move this “unless” part to the condition part at the beginning of the sentence. Apply the changes marked as #13626 in this document. |
| 13632 | 35.3.4.1 | 414.37 | Instead of "one AP", it should be "at least one AP" | As in comment | Revised – mentioning “at least” makes it ambiguous because the rest of the sentence talks about an AP in the same MBSSID, but agree with the comment. Replacing “one” by “an” makes the condition clearer. Apply the changes marked as #13632 in this document. |
| 13980 | 35.3.4.1 | 414.63 | There is a case that one AP affiliated with an AP MLD corresponds to a nontransmitted BSSID of a multiple BSSID set, and the case needs to be considered. An AP affiliated with an AP MLD shall not set the Neighbor AP TBTT Offset subfield to 255 for an AP that corresponds to a transmitted BSSID in the same multiple BSSID set as an AP affiliated with the same AP MLD. | As in comment | Revised – revise the sentence to the passive form to cover all cases. Apply the changes marked as #13980 in this document |
| 13981 | 35.3.4.1 | 414.61 | There is a case that one AP affiliated with an AP MLD corresponds to a nontransmitted BSSID of a multiple BSSID set, and the case needs to be considered. The TBTT offset between one AP affiliated with an AP MLD and the other AP that corresponds to a transmitted BSSID in the same multiple BSSID set as an AP affiliated with the same AP MLD shall not be larger than 254 TUs as well. | As in comment | Reject – the TBTT offset of a nontransmitted BSSID is set to the TBTT offset of the transmitted BSSID, so this case is already covered. |
| 13982 | 35.3.4.1 | 414.61 | Need a method for a non-AP STA to interpret the Neighbor AP TBTT Offset subfield set to 254, because the subfield value is set to 254 to indicate an offset of 254 TUs or higher, or to indicate an offset 254 TUs. | As in comment | Reject – this is already captured in subclause 9.4.2.170.2 Neighbor AP Information field page 203 line 41: “The value 254 indicates an offset of 254 TUs or higher if the AP is not affiliated with an AP MLD and indicates an offset of 254 TUs if the AP is affiliated with an AP MLD” |

1. **Introduction**
2. **Proposed spec text**

TGbe editor: Modify the subclause 35.3.4.1 AP behavior ***as follows:***

**35.3.4.1 AP behavior**

If an AP is affiliated with an AP MLD and does not correspond to a nontransmitted BSSID, then the Beacon and Probe Response frames transmitted by the AP shall include a TBTT Information field in a Reduced Neighbor Report element with the TBTT Information Length field set to 16 or higher (see 9.4.2.170.2 (Neighbor AP Information field)) (#10612), for each of the other APs affiliated with the same AP MLD, if any (#11723). A FILS Discovery frame transmitted by the AP may include a Reduced Neighbor Report element with the same information.

If an AP (AP 1) is affiliated with an AP MLD (AP MLD 1) and corresponds to a nontransmitted BSSID, then the Beacon and Probe Response frames transmitted by the AP (AP 2) corresponding to the transmitted BSSID of the same multiple BSSID set as the AP (AP 1) shall include a TBTT Information field in a Reduced Neighbor Report element with the TBTT Information Length field set to 16 or higher (see 9.4.2.170.2 (Neighbor AP Information field)),(#10612) for each of the other APs affiliated with the same AP MLD (AP MLD 1), if any (#11724). A FILS Discovery frame transmitted by the AP (AP 2) may include a Reduced Neighbor Report element with the same information. (#11725)

NOTE 1 – We use the term AP 1 and AP 2 and AP MLD 2 and AP MLD 2 in this paragraph with the sole purpose to differentiate the APs and the AP MLDs and ease the understanding of the sentences. (#11774)

If all the following conditions are true:

— a reporting AP is affiliated with an AP MLD (AP MLD 1) and is in the same co-located AP set as APs affiliated with another AP MLD (AP MLD 2)

— the reporting AP does not correspond to a nontransmitted BSSID in a multiple BSSID set (#10613)

— the other AP MLD (AP MLD 2) has no affiliated APs operating on the same channel as the reporting AP  
— an (#13632) AP affiliated with the other AP MLD (AP MLD 2) is in the same multiple BSSID set as an AP affiliated with the AP MLD (AP MLD 1) of the reporting AP

— the APs affiliated with the other AP MLD (AP MLD 2) are not already reported in Beacon frames and broadcast Probe Response frames transmitted by an AP in the same co-hosted AP set (#10613) as the reporting AP and operating on the same channel as the reporting AP. (#10225, #13626)

then each AP of the other AP MLD (AP MLD 2) shall be reported in a TBTT Information field with a TBTT Information Length field set to 16 or higher (see 9.4.2.170.2 (Neighbor AP Information field)) (#10612) in the Reduced Neighbor Report element that is included in the Beacon frames and broadcast Probe Response frames transmitted by the reporting AP and may be reported in a FILS Discovery frame that includes a Reduced Neighbor Report element transmitted by the reporting AP. (#10225)

If a reporting AP reports an AP affiliated with an MLD in a Reduced Neighbor Report element with the MLD Parameters subfield present in the TBTT Information field for that AP, then the reporting AP shall set the MLD ID, the Link ID (#11409, #11552)), and the BSS Parameters Change Count subfields as described in 9.4.2.170.2 (Neighbor AP Information field). The MLD ID of an AP MLD shall not be set to 255 and an AP affiliated with an AP MLD shall not have a BSSID index set to 255. (#10412, #10484, #11726)

NOTE—The MLD ID subfield in the Reduced Neighbor Report element is used to determine the AP MLD with which the reported AP is affiliated, especially when multiple AP MLDs are reported in the same frame.

The TBTT offset between two APs affiliated with the same AP MLD shall never be larger than 254 TUs. An AP affiliated with an AP MLD shall not have the Neighbor AP TBTT Offset subfield set to 255 for an AP affiliated with the same AP MLD, except under the rules defined in 35.3.11 (Multi-link procedures for channel switching, extended channel switching, and channel quieting). (#13980)