IEEE P802.11  
Wireless LANs

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| LB271 – CR for some CIDs related to clause 9 | | | | |
| Date: 2023-05-12 | | | | |
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| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 15013 | 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. | Revised – agree with the commenter. Nothing prevents this to be true in baseline CSA/eCSA mechanisms. Add a note in 35.15.3 to remind that this is a possible configuration. |
| 17303 | 9.2.4.1.8 | 137.48 | The following statement " The More Data subfield is valid in individually addressed Data or Management frames transmitted by an AP affiliated with an AP MLD to a non-AP STA affiliated with a non-AP MLD that is in PS mode and in certain control frames as defined below." I would think it is applicable not only for MLDs but also for STAs in general. Please clarify. | Please clarify. | Revised – the first paragraph is covering the same case for non-MLD. Clarify that in the first paragraph by qualifying the STA as not affiliated with a non-AP MLD. Apply the changes marked as #17303 in this document. |
| 17378 | 9.2.4.1.8 | 137.48 | When More Data is invalid, is it reserved? | When More Data is invalid, define how to set it and what semantics is has: e.g., reserved. | Revised – agree with the commenter. Define that in other conditions, the field is reserved. Apply the changes marked as #17378 in this document. |
| 17377 | 9.2.4.1.8 | 137.50 | "as defined below" implicates another 4000-5000 pages in the baseline | "as defined in subsections of 9.3 | Revise – as those are defined in this subclause, refer to this subclause. Apply the changes marked as #17377 in this document. |
| 17304 | 9.2.4.1.8 | 137.55 | This sentence now has become too long. Please try to simplify, eventually splitting into two sentences. | Please clarify. | Revised – agree with the commenter. Why the AP sets the field to 1 doesn’t need to be repeated here. Remove that redundant portion to simplify the sentence. Apply the changes marked as #17304 in this document. |
| 17528 | 9.2.4.5.1 | 222.06 | List of 3 would be clearer if a bulleted list | Convert mesh/unaffil/affil to three different bullets, starting with "for" | Accept |
| 17529 | 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 ..." |  |
| 17905 | 9.4.2.5.1 | 222.36 | “(see NOTE below)” should be put just before the period. | As in comment. | Revised – no need to mention that there is a note below. Remove this to all subbullets. Apply the changes marked as #17905 |
| 18082 | 9.4.2.5.1 | 222.38 | The NOTE must be added after the paragraph containing the bullets and not in between the bullets | Move the NOTE after the paragraph containing the bullets | Accept |
| 17537 | 9.4.2.22 | 228.64 | “For an EHT AP ...” but it is outside EHT AP’s control if this was sent by a legacy OBSS AP. Ditto but in reverse at L62 | “If sent by a non-EHT AP ... If sent by an EHT AP ...” (i.e., exclude the RX case x2) | Accept |
| 17536 | 9.4.2.22 | 229.04 | “to reach” is vague; needs more precison. OOR, frankly delete this. What purpose does it serve!? | 1) make this more precise, perhaps via an example or figure. Either 2a) just delete this bullet which doesn’t seem to help anything or 2b) add a xref to where its use is described. | Revise – replace “to reach” by “until”. Add reference to relevant section in 35. Apply the changes marked as #17536 in this document |
| 18083 | 9.4.2.22 | 229.08 | The baseline spec already has a sentence for Quiet Count field which says: "The value of 0 is reserved." Preserve that sentence and delete this one. Consider modifying the baseline text (for added clarity) as: "The value of 0 in the Quiet Count field is reserved." | As in comment | Revised – Remove the underlining of the baseline part of the sentence and remove the last part of the sentence as it applies to any AP. Apply the changes marked as #18083 in this document. |
| 17535 | 9.4.2.22 | 229.12 | "must not" does not belong in a note or in clause 9 | Copy to a non-Note in clause 35, and convert this to a non-normative xref | Revise – add a reference to subclause 35.3.11 to clarify why this is a note. Apply the changes marked as #17535 in this document. |
| 18084 | 9.4.2.22 | 229.14 | The NOTE does serve its purpose. Instead, it creates a mystery and leaves the reader wondering why a value of 127 not allowed. | Replace the second sentence as: "A quiet count value greater than 127 indicates a quiet interval that has aready started. This is possible when the Quiet element is carried in the per-STA profile of Basic Multi-Link element and there is an on-going quiet interval for the reported AP." | Revise – agree with the commenter. Modify the sentence to better explain the context. Apply the changes marked as #18084 in this document. |
| 17542 | 9.4.2.36 | 230.14 | ".." | Try "." | Accept |
| 17539 | 9.4.2.36 | 230.16 | "Extremely High Throughput" is not a great name since it seems to be synonymous with the AP being an EHT, but really this is about whether certain subelements match the beacon or not | Rename to something more precise such a "EHT Beacon Alignment" | Reject – this field indicates whether the AP is an EHT AP or not, similarly to HT, VHT, HE, … |
| 17543 | 9.4.2.36 | 230.17 | Ambiguous antecedent for "it": most naturally section "35.3.3" but probably "The AP" is intended. | Try "... when the AP includes ..." | Revise – modify the sentence to remove the ambiguity. Apply the changes marked as #17543 in this document. |
| 17544 | 9.4.2.36 | 230.17 | Who is "The AP"? | Try "An AP sending a Neighbor Report ..." | Revise – modify the sentence to remove the ambiguity. Apply the changes marked as #17544 in this document. |
| 17540 | 9.4.2.36 | 230.29 | AFAIK, AP at L29 and neighboring AP at L33 are the same AP. Confusing to use two different terms | Change them both to "neighboring AP" (which also aligns them with P230L38) | Revise – modify the sentence to remove the ambiguity. Apply the changes marked as #17540 in this document. |
| 17541 | 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. |  |
| 15131 | 9.4.2.36 | 231.15 | There is an extra period in "... if the reported AP is not affiliated with an AP MLD.." | Delete one. | Accept |
| 17561 | 9.4.2.164 | 238.15 | "must not" does not belong in a note or in clause 9 | Convert to neutral language and add a xref to the normative language e.g. in clause 35 | Revised – apply same changes as for the Note in the Subclause for Quiet element. Apply the changes marked as #17561 in this document. |
| 17562 | 9.4.2.164 | 238.16 | 1) "An EHT AP must not advertise a number of TBTTs that is greater than 127 until the beacon interval during which the next quiet interval starts" implies there is a single Quiet Channel element leading up to a quiet interval. However, from 9.3.3.2. in the baseline there can be one or more Quiet Channel elements in the beacon in an infras BSS - i.e., a rolling thunder of quiet periods where the next quiet period may be associated with a completely different Quiet Channel element. 2) Actually thins language is very unclear and perhaps misleading. | Try "An EHT AP does not advertise a number of TBTTs that is greater than 127 beacon intervals before the beacon interval during which the indicated quiet interval starts." | Revised – agree with the commenter. apply same changes as for the Note in the Subclause for Quiet element. Apply the changes marked as #17562 in this document. |
| 17564 | 9.4.2.164 | 238.16 | "quiet count" is a field name - needs init caps | Try "A Quiet Count field greater than 127 ..." | Accept |
| 18085 | 9.4.2.164 | 238.17 | The NOTE is referring to Quiet element instead of Quiet Channel element. Furthermore, the NOTE does serve its purpose. Instead, it creates a mystery and leaves the reader wondering why a value of 127 not allowed. | Replace the second sentence as: "A quiet count value greater than 127 indicates a quiet interval that has aready started. This is possible when the Quiet Channel element is carried in the per-STA profile of Basic Multi-Link element and there is an on-going quiet interval for the reported AP. Also see 9.4.2.22 (Quiet element)" | Revised – apply the changes marked as #18085 in this document |
| 17563 | 9.4.2.164 | 238.18 | Bad article (can be many Per-STA Profile subelements), missing article, bad case | Try "a Per-STA Profile subelement in the Basic ..." | Revised – apply the changes marked as #17563 in this document. |
| 17565 | 9.4.2.170.2 | 240.03 | "the AP" is unclear - is this the reported AP or the AP that transmits this element? | Be specific. The reported AP? | Revised – clarify the sentence by referring the reported AP. Apply the changes marked as #17565 in this document. |
| 17566 | 9.4.2.170.2 | 240.05 | Why are we making it impossible to signal a TU offset greater than 254 ? It remains allowable that BIs may be higher than 254 TU!!! | Delete this change!!! Ditto P492L1. What is the rationale for constraining the AP in such an unnecessary manner??? For instance, how does the AP signal the case of different BIs on different links??? | Revise – we are mandating an accurate TBTT offset value between APs of the same AP MLD. Add a reference to the subclause that contains the related normative text. Apply the changes marked as #17566 in this document. |
| 17567 | 9.4.2.170.2 | 240.11 | BTW baseline language "the TBTT Information Length subfield is set to 3, other values are reserved" has two sentences connected by a comma and should be fixed. Maybe 11be and 11me editors could discuss this among themself and fix the baseline? | Editorial referral and fix |  |
| 18086 | 9.4.2.170.2 | 240.38 | Organize this long paragraph as bullets so that each condition and the corresponding value for AP MLD ID is clearly stated as a separate bullet. | As in comment | Revised – agree with the commenter. Apply the changes marked as #18086 in this document. |
| 17568 | 9.4.2.170.2 | 240.54 | "reported AP is not part of an AP MLD" is not the usual language | Try "reported AP is not affilliated with an AP MLD" | Accept |
| 17878 | 9.4.2.170.2 | 240.54 | Revise 'not part of an AP MLD' as 'not affiliated with an AP MLD'. Same comment on line 64. | As in comment | Revised – apply the changes marked as #17568 in this document. |
| 17569 | 9.4.2.170.2 | 240.57 | Using "which" when "that" is needed; missing an article | Try "... only in the frames \*that\* carry the Reduced Neighbor Report element describing \*the\* reported APs affiliated with the AP MLD" | Accept |
| 17570 | 9.4.2.170.2 | 240.59 | No normative text in notes: ("may") | Try "another AP might use a different ..." | Accept |
| 17571 | 9.4.2.170.2 | 240.60 | Note implies a strong rule but provides no normative xref, and is incorrect if MaxBSSIDIndicator in Multiple BSSID element is 8. | Identify/create normative text that makes this so, then add xref in note. Also fix the inelegant language: try "does not indicate that the reported AP has a BSSID index set to 255." | Reject – the note is correct as we use value 255 for an AP not part of an AP MLD or for an unknown value. |
| 17572 | 9.4.2.170.2 | 240.64 | "that information" seems to refer to "the reported AP is not part of an AP MLD" but that is surely not intended | Try "or if the link identifier of the reported AP within the AP MLD is not known to the reporting AP" | Accept |
| 15907 | 9.4.2.170.2 | 241.01 | This note "NOTE 3--The link identifier is unique to an AP affiliated an AP MLD (see 35.3.3.2 (Link ID))." is not accurate and missing words. I think it should be changed to "NOTE 3--The link identifier is unique to an AP affiliated with the same an AP MLD (see 35.3.3.2 (Link ID))." | as in comment | Revise – modify the sentence to make it accurate. Apply the changes marked as #15907 in this document. |
| 17879 | 9.4.2.170.2 | 241.01 | The word “with” is missing. | As in comment | Revised – apply the changes marked as #17879 in this document. |
| 16452 | 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 | Revised – agree with the commenter. Revert the changes in 35.3.10 to how it was described when the All Updates Included field was added to the spec and that corresponds to the definition in 9.4.2.170.2.  Apply the changes marked as #16452 in this document. |
| 17880 | 9.4.2.170.2 | 241.12 | Clarify which AP is being referred to. | Revise "subfield for the AP" as "subfield for the \*reported\* AP" | Accept |
| 17573 | 9.4.2.170.2 | 241.13 | Probably unintendedly ambiguous antecedent (It => RNR element) | Try "The All Updates Included subfield is set to 1 ..." | Accept |
| 15946 | 9.4.2.170.2 | 241.18 | Since RNR can carry information for APs of multiple AP MLDs, clarify why Disable link Indication field can’t be used for other AP MLDs as well if the link disablement information is known to the reporting AP for APs of those MLDs. | Clarify or revise test as in comment | Reject – the commenter fails to identify a technical issue. |
| 17590 | 9.4.2.199 | 246.52 | This implies the MSCT element be can carried in another element - but how can that be? (When a TLV is carried in another element, it is a subelement) | Options: a) (clean) if possible generalize the language here so it works for both elements and subelements without needing to mention either, else b) (precise) move this description to the Basic ML element description where it includes a MCST subelement, and therem where there the mapping from MCST subelement to MCST element is defined, indicate the modification herein. Or c) (breaking new ground) create a new subsection in 9.4.3 to hold this indirection. | Reject – in that case, the MSCT is carried directly in the Beacon frame. |
| 17591 | 9.4.2.199 | 246.58 | Writing "time delta between A and B until C" is very confusing. Also "When the Max Channel Switch Time element is carried in a Basic Multi-Link element" applies to the next sentence too yet this isn't stated. | Try moving things around and adding bullets, as " When the Max Channel Switch Time element is carried in a Basic Multi-Link element, in the Per-STA Profile subelement corresponding to a reported AP: \* Until the last beacon is sent on the current channel, the Switch Time field indicates the maximum time delta between the time the last Beacon frame is transmitted by the reported AP in its current channel and the expected time of the first Beacon frame in its new channel, expressed in TUs \* After the last beacon is transmitted on the reported link, the Switch Time field indicates the estimated time delta between the time the frame carrying the Basic Multi-Link element containing the Max Channel Switch Time element is transmitted by the reporting AP and the expected time of the first Beacon in the new channel by the reported AP. See 35.3.11 (Multi-link procedures for channel switching, extended channel switching, and channel quieting)." | Revised – agree with the commenter. Apply the changes marked as #17591 in this document. |
| 18096 | 9.4.2.315 | 294.34 | Clarify that this field is reserved when carried in Link Recommendation frame. In addition, clarify that the traffic indication virtual bitmap points to the partial virtual bitmap of the TIM element. | As in comment | Reject – this was discussed last meeting and the proposal didn’t reach consensus. |
| 18098 | 9.4.2.315 | 294.41 | It is unclear which AID bitmap this is referring to. Please clarify if it is the one from Multi-Link Traffic Indication element or AID Bitmap element. | As in comment | Revised – agree with the commenter. The sentence is confusing. Remove the term AID Bitmap. Apply the changes marked as #18098 in this document. |
| 17348 | 9.4.2.318 | 300.08 | This element seems very much like the TIM element we have defined today. Do we need a new element? Also no need to say how long the fields are, the figure does that already. | As in comment. | Reject – the group converged on defining a new element to clarify its usage. |
| 17349 | 9.4.2.318 | 300.12 | The length of the AID Bitmap element already gives you the length of the Partial AID Bitmap field, so you don't need another length. Unless the intention is to have this element extensible in the future, in which case please tag it as extensible in the appropriate location. | As in comment. | Reject – the reason is indeed to make it extensible, and it is written as extensible in table 9-128. |
| 17748 | 9.4.2.318 | 300.26 | "The Bitmap Control field is a single octet." Is already defined in the figure | Change to "The Bitmap Control field is defined in Figure 9-1002az (Bitmap Control field of the AID Bitmap element)." After the figure, write "The Bitmap Offset subfield is a bitmap index and is used in the definition of the Partial AID Bitmap field." | Accept |
| 18101 | 9.4.2.318 | 300.26 | The 7 bits shown in Figure 9-1002az don't provide much information about Bitmap Offset field. | Replace the paragraph as "The Bitmap Control field is a single octet with Bit 0 reserved and the rest of the 7 bits representing Bitmap Offset field. The format of Bitmap Control field is as shown in 9-1002az" | Revised – follow the suggestion in CID17748 to resolve this comment. Apply the changes marked as #17748 in this document. |
| 18102 | 9.4.2.318 | 300.32 | The description or purpose Bitmap Offset field is buried in the description of Partial AID Bitmap field. Provide a separate paragraph to describe Bitmap Offset field. | As in comment | Revised – follow the suggestion in CID17748 to resolve this comment. Apply the changes marked as #17748 in this document. |
| 17749 | 9.4.2.318 | 300.34 | B! to B7 is 7 bits | Change 6 to 7 | Accept |
| 18103 | 9.4.2.318 | 300.35 | The number of bits shown under Bitmap Offset field is incorrect. It should be 7 not 6 | As in comment | Accept |
| 18104 | 9.4.2.318 | 300.39 | Where is the AID bitmap field? | Please clarify which field represents AID bitmap value (or how this value is determined) | Reject – there is no AID Bitmap field, but a Partial AID Bitmap field. |
| 17750 | 9.4.2.318 | 300.42 | Why use both N and k when k was working out fine? Then use k1 and k2 in place of N1 and N2 ... | Change N/N1/N2 to k/k1/k2, respectively | Revised – Replace k by N as we indeed don’t need 2 variables. Apply the changes marked as #17750 in this document. |
| 18109 | 9.6.35.9 | 323.08 | The description text provides a reference to clause 9.4.2.315. No need to repeat it in the table. | Delete reference to 9.4.2.315 | Accept |

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

**35.15.3 Channel switching methods for an EHT BSS**

Tgbe editor: Modify the following paragraph in subclause 35.15.3 Channel switching methods for an EHT BSS as follows (#15013):

An EHT STA follows the rules defined in 11.38.4 (Channel switching methods for a VHT BSS) and theadditional rules defined in this subclause.

NOTE – The BSS operating channel, the primary channel and the operating class can be the same between the new channel and the current channel.

**9.2.4.1.8 More Data subfield**

Tgbe editor: Modify the following paragraphs in subclause 9.2.4.1.8 More Data subfield as follows:

A non-DMG and non-S1G STA uses the More Data subfield to indicate to a STA (#17303)that is not affiliated with a non-AP MLD and in PS mode that more BUs are buffered for that STA at the AP. The More Data subfield is valid in individually addressed Data or Management frames transmitted by (#17303)the AP to (#17303)that STA in PS mode(#17378), otherwise it is reserved. The More Data subfield is set to 1 to indicate that at least one additional buffered BU is present for the same STA (see 11.2.3.6 (AP operation)).

For a non-AP MLD, an AP affiliated with an AP MLD uses the More Data subfield to indicate to a non-AP STA in PS mode affiliated with the non-AP MLD that more BUs, corresponding to Data frames with TIDs that are mapped to this link by the most recent DL TID-to-link mapping (negotiated TID-to-link mapping or default link mapping, see 35.3.7.1 (TID-to-link mapping)) or bufferable Management frames (see Table 11- 3 (Bufferable/nonbufferable classification of MMPDUs) and 35.3.12.4 (Traffic indication)) are buffered for the non-AP MLD at the AP MLD (see 35.3.7.1.6 (Use of More Data subfield by an MLD)). The More Data subfield is valid in individually addressed Data or Management frames transmitted by an AP affiliated with an AP MLD to a non-AP STA affiliated with a non-AP MLD that is in PS mode and in certain control frames as defined (#17377)in this subclause (#17378), otherwise it is reserved.

The AP can set the More Data subfield to 1 (#17304) if ~~it~~the AP has received a frame that contains a QoS Info field in which the More Data Ack subfield is equal to 1 from the STA and one of the following conditions is true:

**9.4.2.5 TIM element**

**9.4.2.5.1 General**

Tgbe editor: Modify the following sentence in subclause 9.4.2.5.1 General as follows (#17528):

Each bit in the traffic indication virtual bitmap corresponds to traffic buffered:

* for a specific neighbor peer mesh STA within the MBSS that the mesh STA is prepared to deliver1,
* or for a STA that is not affiliated with an MLD within the BSS that the AP is prepared to deliver at the time the Beacon frame is transmitted,
* or for a non- AP MLD that APs affiliated with the AP MLD are prepared to deliver at the time the Beacon frame is transmitted.

Tgbe editor: Modify the following subbulets in subclause 9.4.2.5.1 General as follows:

* If all STAs affiliated with non-AP MLD are not using APSD and any individually addressed MSDUs/MMPDUs for that non-AP MLD are buffered, then bit number *N* in the traffic indication virtual bitmap is 1(#17905).
* If all STAs affiliated with non-AP MLD are using APSD and any individually addressed MSDUs/ MMPDUs for that non-AP MLD are buffered in at least one nondelivery-enabled AC (if there exists at least one nondelivery-enabled AC in each of the affiliated STAs), then bit number *N* in the traffic indication virtual bitmap is 1(#17905).
* If all STAs affiliated with non-AP MLD are using APSD whereas all ACs are delivery-enabled per each affiliated STA and any individually addressed MSDUs/ MMPDUs for that non-AP MLD are buffered in any AC, then bit number *N* in the traffic indication virtual bitmap is 1. (#17905)
* Otherwise, bit number *N* in the traffic indication virtual bitmap is 0. (#18082)

NOTE—The existence of individually addressed MSDUs/MMPDUs buffered for that non-AP MLD is based on the rules defined in 35.3.12.4 (Traffic indication).

(#18082)

**9.4.2.22 Quiet element**

Tgbe editor: Modify the following paragraph in subclause 9.4.2.22 Quiet element as follows:

(#17537)If sent by a non-EHT AP, the Quiet Count field is set to the number of TBTTs until the beacon interval during which the next quiet interval starts. (#17537)If sent by an EHT AP (see 35.3.11 (Multi-link procedures for channel switch- ing, extended channel switching, and channel quieting)):

* the Quiet Count field is equal to the number of TBTTs until the beacon interval during which the next quiet interval starts if the field is set to a value lower than or equal to 127.
* (#18084) A Quiet Count field value greater than 127 indicates a quiet interval that has already started (#17536)(see 35.3.11 (Multi-link procedures for channel switching, extended channel switching, and channel quieting)). (#18084)If the Quiet Count field is set to a value greater than 127, the Quiet Count field minus 127 is equal to the number of TBTTs in the past (#17536)until the beacon interval during which the ongoing quiet interval started(#18084).

(#18083)The value of 0 is reserved.

NOTE 1—A value of 1 indicates the quiet interval starts during the beacon interval starting at the next TBTT.

(#17535, #18084) NOTE 2—An EHT AP can not advertise a number of TBTTs that is greater than 127 until the beacon interval during which the next quiet interval starts. A Quiet Count field value greater than 127 is used to indicate a quiet interval that has already started and is possible when the Quiet element is carried in a Per-STA Profile subelement in a Basic Multi-Link element (see 35.3.11 (Multi-link procedures for channel switching, extended channel switching, and channel quieting)).

**9.4.2.36 Neighbor Report element**

Tgbe editor: Modify the following paragraph in subclause 9.4.2.36 Neighbor Report element as follows (#17540, #17544, #17543):

The Extremely High Throughput subfield is set to 1 to indicate that the AP represented by this BSSID (reported AP) is an EHT AP and that the EHT Capabilities element (or EHT Operation element), if included as a subelement in the report, is identical in content to the EHT Capabilities element (or EHT Operation element) that the reported AP includes in the Beacon frames it transmits. Otherwise, the Extremely High Throughput subfield is set to 0.

When the Extremely High Throughput subfield is set to 1, and when the Basic Multi-Link element is present as a subelement in the report for a reported AP, the fields included in the Basic Multi-Link element are identical in content to the corresponding fields that are present in the Basic Multi-Link element that the reporting AP includes in the Beacon frames that it transmits.

Tgbe editor: Modify the following paragraph in subclause 9.4.2.36 Neighbor Report element as follows (#15131, #17542):

The Data field of the Basic Multi-Link subelement has the same format as the Information field of the Basic Multi-Link element defined in 9.4.2.312.2 (Basic Multi-Link element). The Basic Multi-Link subelement is not present if the reported AP is not affiliated with an AP MLD.

**9.4.2.164 Quiet Channel element**

***Insert the following note at the end of the subclause:***

Tgbe editor: Modify the following NOTE in subclause 9.4.2.164 Quiet Channel element as follows (#17561, #17562, #17564, #18085, #17563):

NOTE—An EHT AP can not advertise a number of TBTTs that is greater than 127 until the beacon interval during which the next quiet interval starts. A Quiet Count field value greater than 127 is used to indicate a quiet interval that has already started and is possible when the Quiet Channel element is carried in a Per-STA Profile subelement in a Basic Multi-Link element (also see 9.4.2.22 (Quiet element) and 35.3.11 (Multi-link procedures for channel switching, extended channel switching, and channel quieting)).

**9.4.2.170 Reduced Neighbor Report element**

**9.4.2.170.2 Neighbor AP Information field**

Tgbe editor: Modify the following paragraph in subclause 9.4.2.170.2 Neighbor AP Information fiel as follows (#17565, #17566):

The value 254 indicates an offset of 254 Tus or higher if the reported AP is not affiliated with an AP MLD and indicates an offset of 254 Tus if the reported AP is affiliated with an AP MLD. The value 255 indicates an unknown offset value (see 35.3.4.1 (AP behavior)).

Tgbe editor: Modify the following paragraph in subclause 9.4.2.170.2 Neighbor AP Information field as follows:

(#18086)The AP MLD ID subfield indicates the identifier of the AP MLD with which the reported AP is affiliated.

* If the reported AP is affiliated with the same MLD as the reporting AP sending the frame carrying this ele- ment, the AP MLD ID subfield is set to 0.
* If the reported AP is affiliated with the same MLD as a nontrans- mitted BSSID that is in the same multiple BSSID set as the reporting AP (that corresponds to the transmitted BSSID) sending the frame carrying this element, the AP MLD ID subfield is set to the same value as in the BSSID Index field in the Multiple BSSID-Index element in the nontransmitted BSSID profile corresponding to the nontransmitted BSSID.
* If the reported AP is affiliated with an AP MLD that is neither the AP MLD with which the reporting AP is affiliated nor an AP MLD with which a nontransmitted BSSID that is in the same multiple BSSID set as the reporting AP is affiliated, the AP MLD ID subfield is set to a value that is unique for this AP MLD in frames sent by the reporting AP
  + and that is higher than 0 and lower than 255 if no Multiple BSSID element is carried in the same frame
  + or that is higher than 2*n* – 1 and lower than 255 if a Multiple BSSID element is carried in the same frame, where n is the value contained in the MaxBSSID Indicator field in the Multiple BSSID element.
* If the reported AP is not (#17568)affiliated with an AP MLD, or if the reporting AP does not have information of that MLD, The AP MLD ID subfield is set to 255.

(#17569)NOTE 1—The AP MLD ID is used to identify the list of reported APs affiliated with the same AP MLD, especially when APs from multiple AP MLDs are reported, and is assigned such that it is unique to an AP MLD only in the frames that carry the Reduced Neighbor Report element describing the reported APs affiliated with the AP MLD. Following the rules to set the AP MLD ID field, another AP (#17570)might use a different AP MLD ID for the same AP MLD.

NOTE 2—An AP MLD ID subfield set to 255 does not mean that the reported AP has BSSID index set to 255.

The Link ID subfield indicates the link identifier of the reported AP within the AP MLD with which the reported AP is affiliated. The Link ID subfield is set to 15 if the reported AP is not part of an AP MLD, or if the (#17572)Link ID of the reported AP is not known to the reporting AP.

(#15907)NOTE 3—The link identifier is unique to an AP affiliated (#17879)with an AP MLD within this AP MLD (see 35.3.3.2 (Link ID)).

The BSS Parameters Change Count subfield is an unsigned integer, initialized to 0, that increments when a critical update to the BSS Parameters of the reported AP occurs. The critical updates are defined in 11.2.3.15 (TIM Broadcast). The BSS Parameters Change Count subfield is set to 255 if the reported AP is not part of an AP MLD, or if the reporting AP does not have that information.

The All Updates Included subfield indicates if the updated elements that correspond to the latest critical update that generated a change to the value carried in the BSS Parameters Change Count subfield for the (#17880)reported AP are included in the frame carrying the Reduced Neighbor Report element. (#17573)The All Updates Included subfield is set to 1 if all the updated ele- ments are included and set to 0 otherwise.

The Disabled Link Indication subfield is set to 1 if the reported AP is operating on a link that is advertised as disabled for all associated non-AP MLDs and the reported AP is affiliated with the same AP MLD as the reporting AP, or the Co-Located AP bit of the BSS Parameters subfield of the TBTT Information field of the Neighbor AP Information field is set to 1. Otherwise, the Disabled Link Indication subfield is set to 0. Addi- tional rules for associated and unassociated STAs when a link is advertised as disabled for all associated non-AP MLDs are defined in 35.3.7.1.7 (Advertised TID-to-link mapping in Beacon and Probe Response frames).

Tgbe editor: Modify the following paragraphs in subclause 35.3.10 BSS Parameter critical update procedure as follows (#16452):

for each reported AP affiliated with the same AP MLD as the reporting AP, set the All Updates Included subfield to 1 in the MLD Parameters subfield in the TBTT Information field of the Reduced Neighbor Report element corresponding to the reported AP if the updated elements that correspond to the latest critical update that generated a change to the value carried in the BSS Parameters Change Count subfield for the reported AP are included in the frame carrying the Reduced Neighbor Report element, and until th updated elements are no longer included or until the BSS Parameters Change Count subfield is (#17291)additionally incremented due to another critical update, and set to 0 otherwise(#16028).

(#16809)for each reported AP affiliated with the same AP MLD as the AP corresponding to the nontransmitted BSSID, set the All Updates Included subfield to 1 in the MLD Parameters subfield in the TBTT Information field of the Reduced Neighbor Report element corresponding to the reported AP if all the updated elements that correspond to the latest critical update that generated a change to the value carried in the BSS Parameters Change Count subfield for the reported AP are included in the frame carrying the Reduced Neighbor Report element, and until the updated elements are no longer included or until the BSS Parameters Change Count subfield is (#17291)additionally incremented due to another critical update, and set to 0 otherwise.

**9.4.2.217 Max Channel Switch Time element**

***Change the third paragraph as follows:***

Tgbe editor: Modify the following paragraphs in subclause 9.4.2.217 Max Channel Switch Time element as follows (#17591):

The Switch Time field is a 3-octet field. When the Max Channel Switch Time element is carried outside a Basic Multi-Link element, the Switch Time field indicates~~indicating~~ the maximum time delta between the time the last Beacon frame is transmitted by the AP in the current channel and the expected time of the first Beacon frame in the new channel, expressed in TUs.

When the Max Channel Switch Time element is carried in a Basic Multi-Link element, in the Per-STA Profile subelement corresponding to a reported AP:

* until the last Beacon frame is sent on the current channel of the reported AP, the Switch Time field indicates the maximum time delta between the time the last Beacon frame is transmitted by the reported AP in its current channel and the expected time of the first Beacon frame in its new channel, expressed in TUs,.
* After the last Beacon is transmitted on the current channel of the reported AP, the Switch Time field indicates the estimated time delta, expressed in TUs, between the time the frame carry- ing the Basic Multi-Link element containing the Max Channel Switch Time element is transmitted by the reporting AP and the expected time of the first Beacon in the new channel by the reported AP (see 35.3.11 (Multi-link procedures for channel switching, extended channel switching, and channel quieting)).
  + - 1. **Multi-Link Traffic Indication element**

Tgbe editor: Modify the following paragraphs in subclause 9.4.2.315 Multi-Lin Traffic Indication element as follows (#18098):

The Per-Link Traffic Indication List field is defined in [Figure 9-1002as (Per-Link Traffic Indication List](#bookmark240) [field format)](#bookmark240). The Per-Link Traffic Indication List field contains Per-Link Traffic Indication Bitmap sub- fields that correspond to the AIDs of the non-AP MLDs and STAs starting from the bit numbered *k* of the traffic indication virtual bitmap or the AID bitmap. The Per-Link Traffic Indication List field contains *l* Per- Link Traffic Indication Bitmap subfields, where *l* is the number of the bits that correspond to the AIDs of the non-AP MLDs and STAs and set to 1, counting from the bit numbered *k* of:

* the traffic indication virtual bitmap in the Partial Virtual Bitmap subfield of the TIM element that is included in a Beacon frame with the Multi-Link Traffic Indication element
* the Partial AID Bitmap subfield of the AID Bitmap element that is included in a Link Recommendation frame with the Multi-Link Traffic Indication element,
  + - 1. **AID Bitmap element**

Tgbe editor: Modify the following paragraph in subclause 9.4.2.318 AID Bitmap element as follows:

(#17748)The Bitmap Control field is defined in [Figure 9-1002az (Bitmap Control field of the AID Bitmap element)](#bookmark252).

B0 B1 B7

Bitmap Offset

Reserved

Bits: 1 7 (#17749, #18103)

**Figure 9-1002az—Bitmap Control field of the AID Bitmap element**

(#17748)The Bitmap Offset subfield is a bitmap index and is used in the definition of the Partial AID Bitmap field.

(#17750) An AID bitmap refers to a bitmap consisting of 2008 bits where a bit position *N* is set to 1 if AID *N* is a mem- ber of the signaled list of AIDs and otherwise is set to 0.