IEEE P802.11
Wireless LANs

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| LB266: CR for Basic Multi-Link element – part 1 |
| Date: July 13, 2022 |
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 Abstract

This submission proposes resolutions for following 27 CIDs received for TGbe LB266:

11387, 11388, 12057, 11389, 11122, 13474, 10099, 13754, 11391, 12059, 12935, 13099, ~~12740~~, ~~12368, 11515~~, 11393, 13755, 11517, ~~13476~~, 14113, 13841, 13842, 12221, 11124, 11125, 11126, 11127

11387, 11388, 12057, 11389, 11122, 13474, 10099, 13754, 11391, 12059, 12935, 13099, 11393, 13755, 11517, 14113, 13841, 13842, 12221, 11124, 11125, 11126, 11127

**Revisions:**

* Rev 0: Initial version of the document.

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGbe Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbe Editor: Editing instructions preceded by “TGbe Editor” are instructions to the TGbe editor to modify existing material in the TGbe draft. As a result of adopting the changes, the TGbe editor will execute the instructions rather than copy them to the TGbe Draft.***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Section** | **Pg.Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 11387 | Gaurang Naik | 9.4.2.312.2.2 | 215.47 | No need to specify that the subfield is one octet long. It is evident from the format. | As in comment | **Revised**Agree with the commenter. The part of the statement that refers to the length of the subfield is deleted. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11387** |
| 11388 | Gaurang Naik | 9.4.2.312.2.2 | 215.48 | No need to describe the initialization and incrementing of the value here. It is described in the normative subclause 35.3.10. Also, the text here should refer to 35.3.10 instead of 11.2.3.15. | Revise to 'The BSS Parameters Change Count subfield carries the BSS parameters change count of the AP that is affiliated with an AP MLD (as defined in 35.3.10 (BSS parameter critical update procedure)) which is described in the Basic Multi-Link element and satisfies one of the following:' | **Revised**‘BSS parameters change count’ for an AP is not defined in the draft. The current description is sufficient. The reference has been updated from 11.2.3.15 to 35.3.10.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11388** |
| 12057 | Massinissa Lalam | 9.4.2.312.2.2 | 215.48 | Remove the extra "(" in "The value carried in the subfield is incremented when a critical update (as defined in 11.2.3.15" | As in comment | **Revised**The cited text is updated as part of resolution for CID 11388. The closing parenthesis is added. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11388** |
| 11389 | Gaurang Naik | 9.4.2.312.2.2 | 215.59 | Typo: 'Common info field' --> 'Common Info field'. | As in comment | **Accepted** |
| 11122 | Brian Hart | 9.4.2.312.2.2 | 217.49 | Value of EMLSR Transition Delay subfield, when sent by an AP, is undefined. | Define what an AP sents this field to | **Revised**Agree with the commenter. A statement is added to clarify that when included by an AP of an AP MLD, the EMLSR Transition Delay subfield is reserved and set to 0.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11122** |
| 13474 | Liwen Chu | 9.4.2.312.2.2 | 217.49 | Add the text to say that EMLSR Transition Delay transmitted by AP is set to 0. | As in comment | **Revised**Agree with the commenter. A statement is added to clarify that when included by an AP of an AP MLD, the EMLSR Transition Delay subfield is set to 0.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11122** |
| 10099 | Minyoung Park | 9.4.2.312.2.2 | 217.52 | The EMLSR Transition Delay subfield is used when it is included in a frame that is transmitted by a non-AP MLD. When included in a frame that is transmitted by an AP MLD, the subfield is not used and reserved. This clarification needs to be added. | Revise the following sentence "The EMLSR Transition Delay subfield indicates the transition delay time needed by a non-AP MLD to switch from exchanging frames on one of the enabled links to the listening operation on the enabled links (see 35.3.17 (Enhanced multi-link single radio operation)). The EMLSR Transition Delay subfield is 3 bits and set to 0 for 0 µs, set to 1 for 16 µs, 2 for 32 µs, set to 3 for 64 µs, set to 4 for 128 µs, set to 5 for 256 µs, and the values 6 to 7 are reserved."as follows:"The EMLSR Transition Delay subfield is 3 bits and indicates the transition delay time needed by a non-AP MLD to switch from exchanging frames on one of the enabled links to the listening operation on the enabled links (see 35.3.17 (Enhanced multi-link single radio operation)). When the EMLSR Transition Delay subfield is included in a frame sent by a STA affiliated with a non-AP MLD, the EMLSR Transition Delay subfield is set to 0 for 0 µs, set to 1 for 16 µs, 2 for 32 µs, set to 3 for 64 µs, set to 4 for 128 µs, set to 5 for 256 µs, and the values 6 to 7 are reserved. When the EMLSR Transition Delay subfield is included in a frame sent by an AP affiliated with an AP MLD, the EMLSR Transition Delay subfield is reserved and set to 0." | **Revised**Agree with the commenter. A statement is added to clarify that when included by an AP of an AP MLD, the EMLSR Transition Delay subfield is reserved and set to 0.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11122** |
| 13754 | Yuchen Guo | 9.4.2.312.2.2 | 218.36 | The transition timeout is a value set by the AP MLD, and should be reserved for non-AP MLD | change "is set to 0" to "is reserved and is set to 0" | **Revised**Agree with the commenter. The cited change is made for Transition Timeout subfield. Similar change is made for EMLSR Padding Delay subfield, EMLSR Transition Delay subfield, and EMLMR Delay subfield. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 13754** |
| 11391 | Gaurang Naik | 9.4.2.312.2.2 | 217.52 | Provide the encoding in a tabular format, consistent with encoding for EMLSR Padding Delay subfield and others. | As in comment | **Revised**Agree with the commenter. The encoding of the EMLSR Transition Delay subfield is provided in a tabular format. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11391** |
| 12059 | Massinissa Lalam | 9.4.2.312.2.2 | 217.52 | Just like for EMLMR Delay subfield, a table should be preferred to describe the various values of EMLSR Transition Delay subfield instead of the sentence "The EMLSR Transition Delay subfield is 3 bits and set to 0 for 0 Âµs, set to 1 for 16 Âµs, 2 for 32 Âµs, set to 3 for 64 Âµs, set to 4 for 128 Âµs, set to 5 for 256 Âµs, and the values 6 to 7 are reserved." | Add a table similar to Table 9-401g | **Revised**Agree with the commenter. The encoding of the EMLSR Transition Delay subfield is provided in a tabular format. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11391** |
| 12935 | Payam Torab Jahromi | 9.4.2.312.2 | 219.14 | Suggest more reserved bits for MLD Capabilities subfiled in Multi-Link element; left with only 3 bits. | Add an octet to MLD Capabilities to increase Reserved bits by 8 | **Rejected**The structure of the Multi-Link element is flexible to support future expansion. If newer capabilities are added in future (11be or newer amendments), a new subfield can be added to the Common Info field and its presence can be signaled by the Presence Indicator bitmap in the Multi-Link Control field.  |
| 13099 | Chittabrata Ghosh | 9.4.2.312.2 | 219.14 | Suggest more reserved bits for MLD Capabilities subfiled in Multi-Link element; left with only 3 bits. | Add an octet to MLD Capabilities to increase Reserved bits by 8 | **Rejected**The structure of the Multi-Link element is flexible to support future expansion. If newer capabilities are added in future (11be or newer amendments), a new subfield can be added to the Common Info field and its presence can be signaled by the Presence Indicator bitmap in the Multi-Link Control field. |
| 12740 | Liuming Lu | 9.4.2.312.2.2 Common Info field of the Basic Multi-Link element | 220.18 | There is no indication on whether the non-AP MLD supports to operate with an NSTR mobile AP MLD. | Suggest to add an indication on whether the non-AP MLD supports to operate with NSTR mobile AP MLD. | **Rejected**Each AP of an AP MLD announces whether it is affiliated with an NSTR mobile AP MLD or not in the AP MLD Type Indication subfield. Based on this indication, it is up to a non-AP MLD whether to associate with the AP MLD or not. There is no clear motivation for the non-AP MLD to announce the cited capability. |
| 12368 | Rojan Chitrakar | 9.4.2.312.2.2 | 220.26 | Directly reference bit number (B7) is risky, in case the format of the MLD capabilities field is changed, the bit position may change; also B7 refers to bit position within the MLD capabilities and operations subfield, not within the AP MLD Type Indication subfield. | Best if values of the the AP MLD Type Indication subfield can be used, e.g. value 0 indicates not a NSTR mobile AP MLD, 1 indicates NSTR mobile AP MLD and remaining values are reserved. If preference is to use the first bit of the subfield, change B7 to B0 of the AP MLD Type Indication subfield. | **Revised**Agree with the commenter. Since the other values of the subfield are unused, the encoding is changed. Instead of tying the setting to a particular bit of the AP MLD Type Indication subfield, the value of the subfield is used to identify an NSTR mobile AP MLD, which achieves the same objective as earlier. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 12368** |
| 11515 | Xiaofei Wang | 9.4.2.312.2.2 | 220.28 | does "not an NSTR mobile AP MLD" mean "a regular non-mobile AP MLD" or "a STR mobile AP MLD" or "an AP MLD that is a regular STR AP MLD"? Please clarify | maybe change to "set to 1 to indicate AP MLD is an NSTR mobile AP MLD; otherwise, set to 0" | **Revised**The text is revised. The subfield is set to 1 if the AP MLD is an NSTR mobile AP MLD. Otherwise, the subfield is set to 0.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11515** |
| 11393 | Gaurang Naik | 9.4.2.312.2.2 | 220.49 | Need to add some details about which frames can carry this subfield (like it has been done for the other subfields of the Common Info field). | Add the following - 'The MLD ID subfield is not present in the Basic Multi-Link element included in a frame sent by a non-AP STA. The MLD ID subfield is not present in the Basic Multi-Link element when the element is carried in a Beacon, (Re)Association Request, (Re)Association Response, Authentication, or Probe Request frame that is not a Multi-Link probe response. The condition for the presence of the MLD ID subfield in a Multi-Link probe response is defined in 35.3.4.2 (Use of Multi-Link probe request and response.' | **Revised**Agree with the commenter. Similar text exists for all other subfields in the Common Info subfield. Suggested text is added with some revisions. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11393** |
| 13755 | Yuchen Guo | 9.4.2.312.2.3 | 220.55 | Fragment subelement may also be present in the Link Info field. | Please add the corresponding description | **Revised**Agree with the commenter in principle. The cited statement is revised to indicate that Per-STA Profile subelement along with other optional subelements defined in Table 9-401d.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 13755** |
| 11517 | Xiaofei Wang | 9.4.2.312.2.2. | 221.37 | Why is STA MAC address not always included? The information would be needed. | as in comment | **Rejected**When the Basic ML element is included in Beacon and Probe Response frames, the same frame carries the MAC address of the APs reported in the Per-STA Profile subelements in Reduced Neighbor Report element. Therefore, including STA MAC Address subfield for the APs will be duplicate information. (Re)Association Request/Response frames carry complete profile of all reported STAs. There is no case in D2.0 where the STA MAC address is not included in the same frame.  |
| 13476 | Liwen Chu | 9.4.2.312.2.3 | 221.50 | add the following text at the end of the paragraph: An AP affiliated with an NSTR mobile AP MLD and that is operating on the nonprimary link set this subfield to 0. | As in comment | **Revised**Agree with the commenter in principle. However, the AP operating on nonprimary link does not send Beacon/Probe Response frames. Hence, a statement is added to say that the AP operating on the primary link sets the subfield to 0 in the Per-STA Profile corresponding to the AP operating on the nonprimary link.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 13476** |
| 14113 | Li-Hsiang Sun | 9.4.2.312.2.3 | 221.52 | TSF Offset Present should always be set to 0 for a NSTR mobile AP MLD | As in comment | **Revised**Agree with the commenter. A statement is added to say that the AP operating on the primary link sets the subfield to 0 in the Per-STA Profile corresponding to the AP operating on the nonprimary link.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 13476** |
| 13841 | Sanghyun Kim | 9.4.2.312.2.3 | 221.56 | An AP affiliated with an NSTR mobile AP MLD operating on the primary link shall set the Beacon Interval Present subfield corresponding to the non-primary link AP to 0. | As in comment. | **Revised**Agree with the commenter. A statement is added to say that the AP operating on the primary link sets the subfield to 0 in the Per-STA Profile corresponding to the AP operating on the nonprimary link.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 13841** |
| 13842 | Sanghyun Kim | 9.4.2.312.2.3 | 221.60 | An AP affiliated with an NSTR mobile AP MLD operating on the primary link shall set the DTIM Info Present subfield corresponding to the non-primary link AP to 0. | As in comment. | **Revised**Agree with the commenter. A statement is added to say that the AP operating on the primary link sets the subfield to 0 in the Per-STA Profile corresponding to the AP operating on the nonprimary link.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 13842** |
| 12221 | Stephen McCann | 9.4.2.312.2.3 | 222.02 | Some of the "link pairs" in the draft should be "NSTR link pairs" | Change "link pair" to "NSTR link pair". A similar change needs to be made at P223L2, P427L2, P453L2 (x2), P459L20 and P460L2. | **Revised**Agree with the commenter regarding the change on P222L2. However, the term ‘link pair’ at locations P223L2, P427L2, P453L2, and P459L20 can refer to either STR link pair or NSTR link pair. The suggested change is not appropriate at these locations. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 12221** |
| 11124 | Brian Hart | 9.4.2.312.2.3 | 222.48 | "in 2us unit ... in 2s complement" reads badly. Also "Floor" is "floor" in the baseline. | Try "The TSF Offset subfield of the STA Info field indicates the offset (Toffset) between the TSF timer of the reported AP (TA) and the TSF timer of the reporting AP (TB) and is encoded as a 2s complement signed integer with units of 2usec. Toffset is calculated as Toffset = floor((TA - TB)/2)." | **Revised**Agree with the commenter. The statement is revised as suggested. **TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11124** |
| 11125 | Brian Hart | 9.4.2.312.2.3 | 222.64 | "carries" verb number is wrong | Try "and carry" | **Accepted** |
| 11126 | Brian Hart | 9.4.2.312.2.3 | 223.02 | "with <singular noun> equals to" reads badly and is not found in the baseline | "with <singular noun> equal to" x7 in D2.0 (3x in this para alone) | **Revised**Agree with the commenter. The three instances of the issue in the cited paragraph are revised.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11126** |
| 11127 | Brian Hart | 9.4.2.312.2.3 | 223.10 | "the value of BSS parameters change count for the reported AP" has two problems: a) style guide discourages use of redundant "value of" here and b) need initial caps for "BSS Parameters Change Count". Perhaps this is trying ot avoid including procedural language in clause 9 which is commendable but, if so, " BSS parameters change count" is not defined anywhere else in the amendment, so we need a more thorough solution | Try "the most recent BSS Parameters Change Count field sent by the reported AP" | **Revised**Agree with the commenter in principle. The statement is revised as suggested with some modifications.**TGbe editor: Please implement the changes shown in document [**[https://mentor.ieee.org/802.11/dcn/22/11-22-1018-01-00be-lb266-cr-for-basic-multi-link-element-part-1.docx](https://mentor.ieee.org/802.11/dcn/22/11-22-1018-00-000be-lb266-cr-for-basic-multi-link-element-part-1.docx)] **tagged as 11127** |

***TGbe editor: Please note Baseline is 11be D1.4 and REVme D1.3***

**9.4.2.312 Multi-Link element**

**9.4.2.312.2 Basic Multi-Link element**

**9.4.2.312.2.2 Common Info field of the Basic Multi-Link element**

***TGbe editor: Please update the following paragraphs as shown below: [CID 11387, 11388, 11389]***

The BSS Parameters Change Count subfield in the Common Info field (#11387) carries an unsigned integer, initialized to 0. The value carried in the subfield is incremented when a critical update (as defined in 11.2.3.15 (TIM Broadcast) and 35.3.10 (BSS parameter critical update procedure)) (#11388) occurs to the operational parameters for the AP that is affiliated with an AP MLD which is described in the Basic Multi-Link element and satisfies one of the following:

* It is the AP that transmitted the Basic Multi-Link element.
* It is the AP that corresponds to a nontransmitted BSSID that is a member of the same multiple BSSID set as the AP that transmitted the Multiple BSSID element containing the profile for the non transmitted BSSID which includes the Basic Multi-Link element.

The BSS Parameters Change Count subfield in the Common Info (#11389) field is not present if the Basic Multi-Link element is sent by a non-AP STA.

***TGbe editor: Please update the following paragraph as shown below: [CID 13754]***

The EMLSR Padding Delay subfield indicates the minimum MAC padding duration of the Padding field of the initial Control frame requested by the non-AP MLD as defined in 35.3.17 (Enhanced multi-link single radio operation). When the EMLSR Padding Delay subfield is included in a frame sent by an AP affiliated with an AP MLD, the EMLSR Padding Delay subfield is reserved (#13754). The EMLSR Padding Delay subfield includes 3 bits and is set as defined in Table 9-401f (Encoding of the EMLSR Padding Delay subfield).

***TGbe editor: Please update the following paragraph and add a Table as shown below: [CID 11122, 11391]***

The EMLSR Transition Delay subfield indicates the transition delay time needed by a non-AP MLD to switch from exchanging frames on one of the enabled links to the listening operation on the enabled links (see 35.3.17 (Enhanced multi-link single radio operation)). When the EMLSR Transition Delay subfield is included in a frame sent by an AP affiliated with an AP MLD, the EMLSR Transition Delay subfield is reserved (#11122). The EMLSR Transition Delay subfield includes 3 bits and is set as defined in Table 9-401xyz (Encoding of the EMLSR Transition Delay subfield). (#11391)

**Table 9-401xyz—Encoding of the EMLSR Transition Delay subfield (#11391)**

|  |  |
| --- | --- |
| **EMLSR Transition Delay subfield value** | **EMLSR****Transition delay** |
| 0 | 0 µs |
| 1 | 16 µs |
| 2 | 32 µs |
| 3 | 64 µs |
| 4 | 128 µs |
| 5 | 256 µs |
| 6–7 | Reserved |

***TGbe editor: Please update the following paragraph as shown below: [CID 13754]***

When the EMLMR Delay subfield is included in a frame sent by a STA affiliated with a non-AP MLD, the EMLMR Delay subfield is set as defined in Table 9-401g (Encoding of the EMLMR Delay subfield). When the EMLMR Delay subfield is included in a frame sent by an AP affiliated with an AP MLD, the EMLMR Delay subfield is reserved (#13754).

***TGbe editor: Please update the following paragraph as shown below: [CID 13754]***

When the Transition Timeout subfield is included in a frame sent by an AP affiliated with an AP MLD, the Transition Timeout subfield is set as defined in Table 9-401h (Encoding of the Transition Timeout subfield). When the Transition Timeout subfield is included in a frame sent by a non-AP STA affiliated with a non-AP MLD, the Transition Timeout subfield is reserved (#13754).

***TGbe editor: Please update the Table 9-401i as shown below: [CID 13754]***

**Table 9-401i – Subfields of the MLD Capabilities and Operations field**

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| Frequency Separation For STR/AP MLDType Indication | Frequency Separation For STR: Indicates the minimum frequency gap between any two links that is recommended by the non-AP MLD for STR operation. The fre- quency gap is specified as the dif- ference between the nearest frequency edges of the two links.AP MLD Type Indication:Indicates the type of an AP MLD. | Frequency Separation For STR:For a non-AP MLD:Set to 0 to indicate that no frequency sepa- ration information is provided.Set to a nonzero value *n* to indicate that the STR frequency gap is (*n* – 1) ´ 80 MHz.AP MLD Type Indication:For an AP MLD: (#11515)Set (#12368) to 1 to indicate that the AP MLD is an NSTR mobile AP MLD; otherwise, set to 0 (#11515) (#12368)See 35.3.16.2 (Multi-link device capability and operation signaling). |

***TGbe editor: Please update the following paragraph as shown below: [CID 11393]***

The MLD ID subfield indicates the identifier of the AP MLD whose MLD information is carried in the Basic Multi-Link element. The MLD ID subfield is not present in the Basic Multi-Link element included in a frame sent by a non-AP STA affiliated with a non-AP MLD. The MLD ID subfield is not present in the Basic Multi-Link element when the element is carried in a Beacon, (Re)Association Response, Authentication, or Probe Response frame that is not a Multi-Link probe response. The condition for the presence of the MLD ID subfield in a Multi-Link probe response is defined in 35.3.4.2 (Use of Multi-Link probe request and response). (#11393)

**9.4.2.312.2.3 Link Info field of the Basic Multi-Link element**

***TGbe editor: Please update the following paragraph as shown below: [CID 13755]***

If the Link Info field is present, it consists of one or more Per-STA Profile subelements along with other optional elements in Table 9-401d (Optional subelement IDs for Link Info field of the Multi-Link element) . (#13755)

***TGbe editor: Please update the following paragraph as shown below: [CID 13841]***

The Beacon Interval Present subfield indicates the presence of the Beacon Interval subfield in the STA Info field and is set to 1 if the Beacon Interval subfield is present in the STA Info field; otherwise set to 0. A non-AP STA sets the Beacon Interval Present subfield to 0 in the transmitted Basic Multi-Link element. An AP affiliated with an AP MLD that is not an NSTR mobile AP MLD sets this subfield to 1 when the element carries complete profile. The AP affiliated with an NSTR mobile AP MLD operating on the primary link sets this subfield to 0 in the Per-STA Profile subelement corresponding to the AP affiliated with the same NSTR mobile AP MLD that is operating on the nonprimary link. (#13841)

***TGbe editor: Please update the following paragraph as shown below: [CID 13476]***

The TSF Offset Present subfield indicates the presence of the TSF Offset subfield in the STA Info field and is set to 1 if the TSF Offset subfield is present in the STA Info field; otherwise set to 0. A non-AP STA sets the TSF Offset Present subfield to 0 in the transmitted Basic Multi-Link element. An AP affiliated with an AP MLD that is not an NSTR mobile AP MLD sets this subfield to 1 when the element carries complete profile. The AP affiliated with an NSTR mobile AP MLD operating on the primary link sets this subfield to 0 in the Per-STA Profile subelement corresponding to the AP affiliated with the same NSTR mobile AP MLD that is operating on the nonprimary link (#13476).

***TGbe editor: Please update the following paragraph as shown below: [CID 13842]***

The DTIM Info Present subfield indicates the presence of the DTIM Info subfield in the STA Info field and is set to 1 if the DTIM Info subfield is present in the STA Info field; otherwise set to 0. A non-AP STA sets the DTIM Info Present subfield to 0 in the transmitted Basic Multi-Link element. An AP affiliated with an AP MLD that is not an NSTR mobile AP MLD sets this subfield to 1 when the element carries complete profile. The AP affiliated with an NSTR mobile AP MLD operating on the primary link sets this subfield to 0 in the Per-STA Profile subelement corresponding to the AP affiliated with the same NSTR mobile AP MLD that is operating on the nonprimary link (#13842).

***TGbe editor: Please update the following paragraph as shown below: [CID 12221]***

If the value of the Maximum Number Of Simultaneous Links subfield in the MLD Capabilities and Operations field is greater than 0, the NSTR Link Pair Present subfield in the STA Control field indicates if at least one NSTR link pair is present in the MLD that contains the link corresponding to that STA. It is set to 1 if there is at least one NSTR link pair (#12221); otherwise it is set to 0.

***TGbe editor: Please update the following paragraph as shown below: [CID 11124]***

The TSF Offset subfield of the STA Info field indicates the offset (*Toffset*) between the TSF timer of the reported AP (*TA*) and the TSF timer of the reporting AP (*TB*) and is encoded as a 2s complement signed integer with units of 2 ms. *Toffset* is calculated as *Toffset*= floor((*TA* – *TB*)/2). (#11124)

***TGbe editor: Please update the following paragraph as shown below: [CID 11126]***

Each bit B*j* (j≠i) in the NSTR Indication Bitmap subfield included in the Per-STA Profile subelement with Link ID subfield equal (#11126) to *i* (where 0 ≤ *i* < 15) is set to 1 if the link pair corresponding to Link IDs equal to <*i,* *j>* is NSTR and the Basic Multi-Link element contains a Per-STA Profile subelement with Link ID value equal (#11126) to *j*; otherwise it is set to 0. Bit B*i* in the NSTR Indication Bitmap subfield included in the Per-STA Profile subelement with Link ID subfield value equal (#11126) to *i* is reserved.

***TGbe editor: Please update the following paragraph as shown below: [CID 11127]***

The BSS Parameters Change Count subfield of the STA Info field is defined in 9.4.2.170.2 (Neighbor AP Information field) and carries the most recent BSS parameters change count corresponding to the reported AP. (#11127)

**35.3.19.2 Discovery of an NSTR mobile AP MLD**

***TGbe editor: Please update the following paragraph as shown below: [CID 12368]***

The discovery procedure for an NSTR mobile AP MLD is the same as the procedure described in 35.3.4 (Discovery of an AP MLD) with the following exceptions:

* An AP affiliated with an NSTR mobile AP MLD and that is operating on the primary link of an NSTR link pair shall indicate that it is an NSTR mobile AP MLD by setting the (#12368) AP MLD Type Indication subfield to 1 in MLD Capabilities and Operations field of the Common Info field in the Basic Multi-Link element.