IEEE P802.11
Wireless LANs

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| LB 266 Resolution for CIDs related to ML IE rules |
| Date: July 12, 2022 |
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 Abstract

This submission proposes resolutions for following 78 CIDs received for TGbe LB266:

10298 11030 10219 10481 10220 11709 10302 12791 11405 11028 11029 11031 11255 13776 14058 11032 11256 14059 10303 10222 11716 14060 11257 11406 13890 13257 10601 13341 13979 11770 12176 10305 10223 13777 11718 10602 10439 11034 13609 13778 10603 13613 11035 13610 13780 11033 11719 10224 13781 13782 10604 11407 13342 13779 14108 10770 11036 13343 12587 12177 13612

11386 12822 11394 12823 11402 10565 11400 13478 11399 10568 10559 10569 10570 11403 12792 12793 10599

**Revisions:**

* Rev 0: Initial version of the document.

***TGbe editor: The baseline for this document is 11be D2.0***

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** | **Pg/Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 10298 | Michael Montemurro | 35.3.1 | 404.61 | TDLS can be established between MLDs or an MLD and a non-AP STA. | Change "non-AP MLD" to "non-AP MLD or non-AP STA" at cited location. | **Revised**Agree in principle. However, when a non-AP MLD establishes a TDLS direct link with a legacy STA, it can only be a single link TDLS direct link. The cited sentence is modified as suggested by the comment with the additional change that it is a single link TDLS direct link.**TGbe editor, please replace the cited sentence as: “A non-AP MLD may establish a single link TDLS direct link with another non-AP MLD or a non-AP STA as defined in 35.3.21 (TDLS procedure in multi-link operation).”** |
| 11030 | Rubayet Shafin | 35.3.1 | 404.62 | A non-AP MLD can also establish a TDLS direct link with a STA that is not affiliated with any MLD. This fact needs to be added in the sentence to make the sentence more complete. | As in comment | **Revised**Agree in principle. The text was updated as a resolution to CID 10298.**TGbe editor: please apply the same resolution as CID 10298** |
| 10219 | John Wullert | 35.3.1 | 405.01 | The fact that the STA is affiliated with the MLD is essential to the rest of the sentence, so should use "that" rather the "which". | Revise sentence as "A STA that is affiliated with an MLD may select and manage..." | **Revised**Agree in principle. The sentence also needs to say that each STA of the MLD can independently select its operating parameters.**TGbe editor, please update the cited sentence as: “Each STA affiliated with an MLD may select and manage …”** |
| 10481 | Eldad Perahia | 35.3.1 | 405.04 | "may select its BSS color corresponding to the BSS that the AP generates differently." That the AP generates differently? It is unclear what this means. | clarify | RevisedAgree in principle. The NOTE is revised to clearly state the intention. In addition, ‘may’ is removed since NOTE cannot be normative.**TGbe editor, please update the cited NOTE as: “NOTE 1 – For example, each AP affiliated with an AP MLD can independently select, disable, and update the BSS color (see 26.17.3 (BSS color)) for its BSS.”** |
| 10220 | John Wullert | 35.3.1 | 405.04 | In the note, the fact that the AP is affiliated with the MLD is essential to the rest of the sentence, so should use "that" instead of "which". | Revise sentence as "For example, each AP that is affiliated with an AP MLD may select its BSS color..." | **Revised**Agree in principle. The NOTE was updated as a resolution to CID 10481.**TGbe editor: please apply the same resolution as CID 10481** |
| 11709 | Gaurav Patwardhan | 35.3.1 | 405.04 | Note-1 does not parse properly. | Change current Note-1 to "For example, each AP affiliated with an AP MLD may select its own BSS color" | **Revised**Agree in principle. The NOTE was updated as a resolution to CID 10481.**TGbe editor: please apply the same resolution as CID 10481** |
| 10302 | Michael Montemurro | 35.3.2.1 | 405.51 | For an AP MLD and affiliated APs, "shall follow the rules in" really is just a requirement that points to other clauses with requirements. | Change"An AP affiliated with an AP MLD shall follow the rules defined in 35.3.4.4 (Multi-Link element usage rules in the context of discovery) for including a Basic Multi-Link element in a Beacon frame that it transmits or in a Multi-Link probe response, that it transmits.An AP affiliated with an AP MLD shall follow the rules in 35.3.4.2 (Use of Multi-Link probe request and response) for including a Basic Multi-Link element in a Multi-Link probe response, that it transmits.An AP affiliated with an AP MLD shall follow the rules in 35.3.5.4 (Usage and rules of Basic Multi-Link element in the context of multi-link (re)setup) for including a Basic Multi-Link element in a (Re)Association Response frame and in an Authentication frame that it transmits."to"Advertisment of multilink information is maintained by the MLD and transmitted by its affiliated APs. The requirements for including a Basic Multi-Link element in a Beacon frame or in a Multi-Link probe response is described in 35.3.4.2 (Use of Multi-Link probe request and response) and 35.3.4.4 (Multi-Link element usage rules in the context of discovery). The requirements for including a Basic Multi-Link element in a (Re)Association Response frame or in an Authentication frame is described in 35.3.5.4 (Usage and rules of Basic Multi-Link element in the context of multi-link (re)setup)" | **Revised**Agree in principle with comment. The cited paragraphs were consolidated into one paragraph as suggested by the commenter. Additional changes were made to better align with the intention of the original paragraphs. Furthermore, rules related to Reconfiguration and Priority Access variant were also added. The description related to these variants was missing in this section since the variants were not defined when the section was first written.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 10302** |
| 12791 | Laurent Cariou | 35.3.2.1 | 405.50 | This paragraph should also talk about regular probe response frame (non-ML) | as in comment | **Revised**Agree in principle with the comment. The cited paragraph was modified as a resolution to CID 10302. The term Multi-Link probe response was not used in the revised text. Instead, the text states Probe Response frame which will cover both ML probe response and non-ML probe response.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 12791** |
| 11405 | Gaurang Naik | 35.3.2.1 | 405.53 | This statement must refer to Probe Response frame that is not an ML Probe response. It is incorrectly referring to ML probe response, which is addressed in the next paragraph. | Revise as 'in a Beacon frame that it transmits or a Probe Response frame, which is not a Multi-Link probe response, that it transmits.' | **Revised**Same resolution as CID 12791**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 12791** |
| 11028 | Hanqing Lou | 35.3.2.1 | 405.53 | Why do we use "in a Multi-Link probe response" here while in the other similar paragraphs we use "in a xxx frame". This may make people think Multi-Link probe response is a frame. | Change "in a Multi-Link probe response" to "in a Probe Reqponse frame" or "in a Multi-Link Probe Response frame" if we determine to define it. | **Revised**Same resolution as CID 12791**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 12791** |
| 11029 | Hanqing Lou | 35.3.2.1 | 405.56 | Why do we use "in a Multi-Link probe response" here while in the other similar paragraphs we use "in a xxx frame". This may make people think Multi-Link probe response is a frame. | Change "in a Multi-Link probe response" to "in a Probe Reqponse frame" or "in a Multi-Link Probe Response frame" if we determine to define it. | **Revised**Same resolution as CID 12791**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 12791** |
| 11031 | Rubayet Shafin | 35.3.2.1 | 405.53 | The comma before the "that it transmits." is misplaced. | Please remove the comma. | **Revised**The cited sentences were updated as a resolution to CID 10302 and the issue point out by the comment no longer applies**TGbe editor: please apply the same resolution as CID 10302** |
| 11255 | Sigurd Schelstraete | 35.3.2.1 | 405.53 | No comma needed ("response, that it transmits" should be "response that it transmits") | Delete comma | **Revised**The cited sentences were updated as a resolution to CID 10302 and the issue point out by the comment no longer applies**TGbe editor: please apply the same resolution as CID 10302** |
| 13776 | Yuchen Guo | 35.3.2.1 | 405.53 | Remove ",", same for Line 57 | Remove "," at 405.53 and 405.57. | **Revised**The cited sentences were updated as a resolution to CID 10302 and the issue point out by the comment no longer applies**TGbe editor: please apply the same resolution as CID 10302** |
| 14058 | Pooya Monajemi | 35.3.2.1 | 405.53 | No comma required | Remove the comma before ", that it transmits" | **Revised**The cited sentences were updated as a resolution to CID 10302 and the issue point out by the comment no longer applies**TGbe editor: please apply the same resolution as CID 10302** |
| 11032 | Rubayet Shafin | 35.3.2.1 | 405.57 | The comma before the "that it transmits." is misplaced. | Please remove the comma. | **Revised**The cited sentences were updated as a resolution to CID 10302 and the issue point out by the comment no longer applies**TGbe editor: please apply the same resolution as CID 10302** |
| 11256 | Sigurd Schelstraete | 35.3.2.1 | 405.57 | No comma needed ("response, that it transmits" should be "response that it transmits") | Delete comma | **Revised**The cited sentences were updated as a resolution to CID 10302 and the issue point out by the comment no longer applies**TGbe editor: please apply the same resolution as CID 10302** |
| 14059 | Pooya Monajemi | 35.3.2.1 | 405.57 | No comma required | Remove the comma before ", that it transmits" | **Revised**The cited sentences were updated as a resolution to CID 10302 and the issue point out by the comment no longer applies**TGbe editor: please apply the same resolution as CID 10302** |
| 10303 | Michael Montemurro | 35.3.2.1 | 406.01 | For a non-AP MLD and affiliated STAs, "shall follow the rules in" really is just a requirement that points to other clauses with requirements. | Change"A STA affiliated with a non-AP MLD shall follow the rules in 35.3.4.2 (Use of Multi-Link probe request and response) for including a Probe Request Multi-Link element in a Probe Request frame that it transmits.A STA affiliated with a non-AP MLD shall follow the rules in 35.3.5.4 (Usage and rules of Basic Multi-Link element in the context of multi-link (re)setup) for including a Basic Multi-Link element in a (Re)Association Request frame and in an Authentication frame that it transmits."to"The requirements for including of the Probe Request Multi-Link element in a Probe Request frame by a non-AP MLD are described in 35.3.4.2 (Use of Multi-Link probe request and response) .The requirements for including the Basic Multi-Link element in a (Re)Association Request frame by a non-AP MLD are described in 35.3.5.4 (Usage and rules of Basic Multi-Link element in the context of multi-link (re)setup)." | **Revised**Agree in principle with comment. The cited paragraphs were consolidated into one paragraph as suggested by the commenter. Additional changes were made to better align with the intention of the original paragraphs. Furthermore, rules related to TDLS is also added. The description related to this variant was missing in this section since the variants were not defined when the section was first written.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 10303** |
| 10222 | John Wullert | 35.3.2.1 | 405.50 | The first five single-sentence paragraphs in this clause are normative text saying that the device shall follow requirements defined elsewhere in the specification. This does not seem to be adding any value. | Remove these sentences. Alternatively, edit these sentences to use non-normative language. | **Revised**Agree in principle. The cited sentences were updated as a resolution to CID 10302 and 10303**TGbe editor: please apply the same resolution as CID 10302 and 10303** |
| 11716 | Gaurav Patwardhan | 35.3.2.1 | 406.21 | Change "Link Info field" to "Link ID Info field". | as in comment | **Revised**The cited text is referring to Link Info field (see Figure 9-1002e). In order to avoid any confusion with the Link ID Info field or Link ID subfield, a reference to Figure 9-1002e is added to the sentence.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 11716** |
| 14060 | Pooya Monajemi | 35.3.2.1 | 406.21 | Missing "a" or "the" before "Link Info filed" | Add "a" or "the" before "Link Ino field" | **Revised**Agree with the comment. The missing article (‘the’) is inserted.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 14060** |
| 11257 | Sigurd Schelstraete | 35.3.2.1 | 406.22 | "defined in 35.3.2.2" should be "as defined in 35.3.2.2" | Change "STA defined in 35.3.2.2" to "STA, as defined in 35.3.2.2" | **Revised**Agree with the comment. The sentence is fixed to address the issue pointed by the comment (“the STA” is deleted).**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 11257** |
| 11406 | Gaurang Naik | 35.3.2.1 | 406.23 | Insert 'as' between 'with the same MLD as the STA' and 'defined in 35.3.2.2'. | As in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 11257**TGbe editor: please apply the same resolution as CID 11257** |
| 13890 | Ming Gan | 35.3.2.1 | 406.47 | Change "affiliated with" to "that is affiliated with" | add "that is" before "affiliated with" | **Accepted****NOTE – since this paragraph has undergone several changes, the changes related to this comment are shown in doc 11-22/1003 tagged as 13890** |
| 13257 | Binita Gupta | 35.3.2.1 | 406.51 | What is the point of NOTE 2? Isn't it always true that fields can be included in the elements in the frame. Suggest to remove the Note. If to be kept, add some context information to the NOTE. | As in comment. | **Revised**Agree in principle. The NOTE was deleted, and the normative text was updated to clarify that the field can be directly included in the frame or within an element carried in the frame. Minor editorial improvements were made as part of the text change.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 13257** |
| 10601 | Abhishek Patil | 35.3.2.1 | 406.43 | TGbe spec needs to provide similar guidance on the AP MLD side - i.e., an AP MLD must apply the values carried in the field/elements contained in a Per-STA Profile subelement of ML IE transmitted by a non-AP MLD to the appropriate link. | As in comment | **Revised**Agree in principle. A new paragraph was added to cover the case of a STA of a non-AP MLD transmitting a frame that provides information of another STA affiliated with the same non-AP MLD.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 10601** |
| 13341 | Liwen Chu | 35.3.2.1 | 406.38 | The similar text should be provided for Asspciation Request | As in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 10601**TGbe editor: please apply the same resolution as CID 10601** |
| 13979 | Geonjung Ko | 35.3.2.1 | 406.48 | It would be better to cover the case that the received frame is transmitted by an unassociated AP that corresponds to a transmitted BSSID of a multiple BSSID set of which the associated AP is a member. | As in comment | **Revised**Agree with the comment. A new bullet was added to cover the nonTxBSSID case.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 13979** |
| 11770 | Osama Aboulmagd | 35.3.2.2 | 406.57 | The sentence "...then the STA shall set the Complete profile subfield of the STA..". It is not clear what STA this sentence is referring to which STA reporting or reported | as in comment | **Revised**Agree with the comment. The sentence is updated to clarify that the reporting STA sets the Complete Profile subfield to 1. Also add a minor editorial clarification.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 11770** |
| 12176 | Takuhiro Sato | 35.3.2.2 | 406.64 | typo: An unnesasary space is inserted before the comma. |   | **Revised**Agree with the comment. The extra space before the comma was deleted. In addition, a missing comma was added after ‘Otherwise’ in previous paragraph.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 12176** |
| 10305 | Michael Montemurro | 35.3.2.2 | 407.05 | Wording could be improved | Change "carry" to "include" | **Revised**Agree with the comment. The term ‘carry’ was replaced with ‘include’. In addition, NOTE 2 was updated to better align with the intention.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 10305** |
| 10223 | John Wullert | 35.3.2.2 | 407.35 | Sentence repeats the phrase "the STA Info field" | Address the apparent duplicate. If the intention is to refer to the STA Info field and the presence indicators within the STA Info field separately, list them in that order (STA Info field first). | **Revised**The intention was to say that the STA Control provides presence indicators for subfield carries in the STA Info field. Therefore, the repetition of the term ‘STA Info’. The cited paragraph is revised to remove this repetition and point to clause 9 which covers the format and intention of each field.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 10223** |
| 13777 | Yuchen Guo | 35.3.2.2 | 407.38 | Duplicates of "the STA Info field" | Delete the duplicated "the STA Info field". | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 10223**TGbe editor: please apply the same resolution as CID 10223** |
| 11718 | Gaurav Patwardhan | 35.3.2.2 | 407.38 | Following text has been repeated: "the STA Info field" . Remove one instance. | as in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 10223**TGbe editor: please apply the same resolution as CID 10223** |
| 10602 | Abhishek Patil | 35.3.2.2 | 407.44 | We do not have a separate frame type called Multi-Link Probe Response. Instead it is a Probe Response frame satisfying certain conditions. Therefore, "if the frame is a Multi-Link probe response" is incorrect. | Replace 'frame is' with 'fields and elements are carried in'. | **Accepted****NOTE – since this paragraph has undergone several changes, the changes related to this comment are shown in doc 11-22/1003 tagged as 10602** |
| 10439 | Rocco Di Taranto | 35.3.2.2 | 407.51 | Parenthesis not needed | (Inheritance in the per STA profile of Basic Multi-Link Element) | **Accepted****TGbe editor, please delete the extra ‘)’** |
| 11034 | Rubayet Shafin | 35.3.2.2 | 407.53 | This bullet on exclusion for AP-side should be moved to clause 35.3.2.3 (elements not carried in a per-STA profile) for brevity. | As in comment | **Revised**Agree with the commenter. The fields and elements listed in the bullets are moved to clause 35.3.2.3. The title of the clause is updated to include “fields”.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 11034** |
| 13609 | Rubayet Shafin | 35.3.2.2 | 407.42 | The excluded fields/element for AP-side per-STA profile as defined in clause 35.3.2.3 should also be taken into account in this sentence as subject to condition. | As in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 11034**TGbe editor: please apply the same resolution as CID 11034** |
| 13778 | Yuchen Guo | 35.3.2.2 | 407.53 | The following subclause (35.3.2.3) defines the elements that are not carried in the per-STA profile. Please Move the SSID element and the BSS Max Idle Period element to that subclause | As in the comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 11034**TGbe editor: please apply the same resolution as CID 11034** |
| 10603 | Abhishek Patil | 35.3.2.2 | 407.54 | Move this bullet and associated NOTEs to subclause 35.3.2.3. Same comment for the corresponding bullet and NOTEs on the non-AP MLD side. | As in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 11034**TGbe editor: please apply the same resolution as CID 11034** |
| 13613 | Rubayet Shafin | 35.3.2.2 | 409.06 | The fields, not only the elements, that are not present in the Per-STA profile should also be included in the list. Also, the title of the sub-clause should also be modified to reflect that this is for the exclusion for both fields and elements. | As in comment | **Revised**Agree in principle. The title of the subclause was revised as a resolution to CID 11034.**TGbe editor: please apply the same resolution as CID 11034** |
| 11035 | Rubayet Shafin | 35.3.2.2 | 408.05 | This bullet on exclusion for non-AP STA-side should be moved to clause 35.3.2.3 (elements not carried in a per-STA profile) for brevity. | As in comment | **Revised**Agree with the commenter. The fields and elements listed in the bullets are moved to clause 35.3.2.3.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 11035** |
| 13610 | Rubayet Shafin | 35.3.2.2 | 407.59 | The excluded fields/element for non-AP STA-side per-STA profile as defined in clause 35.3.2.3 should also be taken into account in this sentence as subject to condition. | As in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 11035**TGbe editor: please apply the same resolution as CID 11035** |
| 13780 | Yuchen Guo | 35.3.2.2 | 408.12 | TIM element is mentioned here, but it is not mentioned in Line 53 of Page 407, please harmonize the two places | As in the comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 11035 and addresses this comment.**TGbe editor: please apply the same resolution as CID 11035** |
| 11033 | Rubayet Shafin | 35.3.2.2 | 407.61 | It should be "a Reassociation.." instead of "an Reassociation.." | Please correct the article | **Accepted****NOTE – since this paragraph has undergone several changes, the changes related to this comment are shown in doc 11-22/1003 tagged as 11033** |
| 11719 | Gaurav Patwardhan | 35.3.2.2 | 408.10 | Convert NOTE-4 into normative text. | as in comment | **Revised**Agree in principle. Since this applies to a general behavior of an AP MLD, a new sentence is added to clause 35.3.1 to mention that all APs of an AP MLD shall advertise the same SSID. A reference is made to this clause in the NOTE.**TGbe editor, please add the following sentence to clause 35.3.1: “All APs affiliated with the same AP MLD are members of the same ESS and are connected to the same DS. As a result, all APs affiliated with the same AP MLD shall advertise the same SSID.”** |
| 10224 | John Wullert | 35.3.2.2 | 408.10 | Note 4 describes a behavior of APs affiliated with the AP MLDs in non-normative terms, but it does not appear that this behavior is specified as a requirement anywhere in the document. | Convert note 4 to normative text. | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 11719**TGbe editor: please apply the same resolution as CID 11719** |
| 13781 | Yuchen Guo | 35.3.2.3 | 409.11 | For the AP MLD, any type of Multi-Link element shall not be carried in the per-STA Profile. | Remove "Basic" | **Accepted****NOTE – since this paragraph has undergone several changes, the changes related to this comment are shown in doc 11-22/1003 tagged as 13781** |
| 13782 | Yuchen Guo | 35.3.2.3 | 409.14 | For the non-AP MLD, any type of Multi-Link element shall not be carried in the per-STA Profile. | Remove "Basic" | **Accepted****NOTE – since this paragraph has undergone several changes, the changes related to this comment are shown in doc 11-22/1003 tagged as 13782** |
| 10604 | Abhishek Patil | 35.3.2.2 | 408.06 | Bullet applies to both AP & non-AP MLD and should be indented one level out. | As in comment | **Revised**Agree with the comment. The indentation of the bullet is adjusted to apply to both AP and non-AP.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 10604** |
| 11407 | Gaurang Naik | 35.3.2.2 | 407.06 | This bullet point applies to both AP and non-AP. Either duplicate this bullet point for the AP or make the bullet point apply to both AP and non-AP (remove one level of indentation). | As in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 10604**TGbe editor: please apply the same resolution as CID 10604** |
| 13342 | Liwen Chu | 35.3.2.2 | 407.41 | Add optional non-inheritance element as the last element as in Assocition Request frame | As in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 10604**TGbe editor: please apply the same resolution as CID 10604** |
| 13779 | Yuchen Guo | 35.3.2.2 | 408.06 | Is the non-inheritance element is only transmitted by the non-AP STA? If not, please also add it to the AP side after Line 55 of Page 407 | As in the comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 10604**TGbe editor: please apply the same resolution as CID 10604** |
| 14108 | Li-Hsiang Sun | 35.3.2.2 | 408.06 | "Optionally, a Non-Inheritance element appears as the last element in the STA Profile field andcarries a list of elements that are not inherited by the reported STA from the reporting STA" should this bullet common for both AP and non-AP? | Move the bullet to be common for both AP and non-AP | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 10604**TGbe editor: please apply the same resolution as CID 10604** |
| 10770 | Chien-Fang Hsu | 35.3.2.2 | 408.06 | The Non-Inheritance element uses Element ID List and Element ID Extension List to identify the element. However, when there are multiple vendor specific elements that cannot be inherited, the Non-Inheritance element cannot specify the case. A way to indicate multiple non-Inheritance vendor specific elements is required. | Modify the current Non-Inheritance element or add a new element to indicate elements having the same element ID and element ID extension but having different other identifiers such as the Organization Identifier in Vendor Specific element so that there can be multiple non-inheritant Vendor specifc elements. | **Rejected**The text on P409L37-L50 handles the case of Vendor Specific IEs being different for the reporting STA and the reported STA. See example in NOTE 1. |
| 11036 | Rubayet Shafin | 35.3.2.2 | 408.12 | The first sentence in NOTE 5 is not complete. | Please clarify in the sentence how the Timestamp field and the TIM element would be obtained on the respective links, for example, by saying that these can be obtained through receiving Beacons on respective links or in any other way. | **Revised**The cited NOTE was updated to clarify that Beacon frame provides traffic advertisement and timing information. While probe provides timing information.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged as 11036** |
| 13343 | Liwen Chu | 35.3.2.2 | 408.12 | It is not right to mention TIM eleement here since TIM is not in Probe Response, Association Response frame | As in comment | **Revised**Agree in principle. The cited sentence was updated as a resolution to CID 11036 and addresses this comment.**TGbe editor: please apply the same resolution as CID 11036** |
| 12587 | stephane baron | 35.3.2.2 | 408.42 | The Table number "9-34" in Figure 35-3 is not correct. It must be updated to the correct one "9-62" | Correct the Table number to the right one as below:Field and Element order as defined in Table 9-62 | **Accepted****TGbe editor, if needed, a Visio file for the updated figure can be provided.**  |
| 12177 | Takuhiro Sato | 35.3.2.2 | 408.42 | Table 9-34 is not appropriate in explaining Figure 35-3. It must be Table 9-62. Table 9-34 represents Maximum data unit sizes (in octets) and durations (in microseconds). |   | **Revised**Agree with the comment. The resolution is same as 12587**TGbe editor: please apply the same resolution as CID 12587** |
| 13612 | Rubayet Shafin | 35.3.2.2 | 408.42 | I think the referene for the fields and elements order should be Table 9-62 instead of Table 9-34. | Please correct the reference for the Table. | **Revised**Agree with the comment. The resolution is same as 12587**TGbe editor: please apply the same resolution as CID 12587** |

**35.3.2 Advertisement of multi-link information in Multi-Link element**

**35.3.2.1 General**

***TGbe editor: Please modify the first five paragraphs in this subclause as shown below:***

[10302]The requirements for including a Basic Multi-Link element in a Beacon frame or in a [12791]Probe Response frame are described in 35.3.4.4 (Multi-Link element usage rules in the context of discovery). The requirements for including a Basic Multi-Link element in a (Re)Association Response frame, in a (Re)Association Request frame, or in an Authentication frame are described in 35.3.5.4 (Usage and rules of Basic Multi-Link element in the context of multi-link (re)setup).

The requirements for including Reconfiguration Multi-Link element in a Beacon frame and Probe Response frame are described in 35.3.6.2.2 (Removing affiliated APs).

[10302]The requirements for including the Priority Access Multi-Link element in EPCS Priority Access Enable Request/Response frames are described in 35.17 (EPCS priority access).

[10302][10302][10302]

[10303]The requirements for including of the Probe Request Multi-Link element in a Probe Request frame are described in 35.3.4.2 (Use of Multi-Link probe request and response).

[10303] The requirements for including the TDLS Multi-Link element in frames exchanged during TDLS discovery and setup are described in 35.3.21 (TDLS procedure in multi-link operation).

[10303][10303]

***TGbe editor: Please modify the 7th paragraph in this subclause as shown below:***

A STA affiliated with an MLD may include [14060]the Link Info field [11716] (see Figure 9-1002e (Multi-Link element format)) in the Basic Multi-Link element that it transmits to provide complete or partial profile of another STA affiliated with the same MLD as [11257]defined in 35.3.2.2 (Advertisement of complete or partial per-link information).

***TGbe editor: Please modify the 11th paragraph in this subclause (including deletion of the NOTE and addition of a new paragraph) as shown below:***

[13257]A STA affiliated with a non-AP MLD shall follow the procedure (if any) that are applicable to a field carried (directly or within an element) in a (Re)Association Response frame, a Beacon frame or a Probe Response frame received on another link as if it had received that field in the corresponding frame transmitted by its associated AP, only if all of the following conditions are satisfied:

* [13257]The field is carried within a Per-STA Profile subelement of a Basic Multi-Link element, corresponding to the STA’s associated AP (i.e., reported AP)
* The corresponding frame is received by another STA affiliated with the same non-AP MLD
* The corresponding frame is transmitted by an AP that is[13890]:
	+ affiliated with the same AP MLD as the reported AP and is associated with the STA that received the frame.
	+ [13979]the transmitted BSSID in the same multiple BSSID set as an AP corresponding to the nontransmitted BSSID and that is associated with the STA that received the frame and that is affiliated with the same AP MLD as the reported AP.

[13257]

[10601]An AP affiliated with an AP MLD shall follow the procedure (if any) that are applicable to a field carried (directly or within an element) in a (Re)Association Request frame received on another link as if it had received that field in the corresponding frame transmitted by its associated non-AP STA, only if all of the following conditions are satisfied:

* The field is carried within a Per-STA Profile subelement of a Basic Multi-Link element, corresponding to the AP’s associated non-AP STA (i.e., reported non-AP STA)
* The corresponding frame is received by another AP affiliated with the same AP MLD
* The corresponding frame is transmitted by a non-AP STA that is affiliated with the same non-AP MLD as the reported non-AP STA and is associated with the AP that received the frame.

**35.3.2.2 Advertisement of complete or partial per-link information**

***TGbe editor: Please update the contents of the following paragraph this subclause as shown below:***

If a reporting STA that is[11770] affiliated with an MLD transmits a frame that carries a Basic Multi-Link element, which includes a Per-STA Profile subelement that carries the complete profile for a reported STA, then the [11770]reporting STA shall set the Complete Profile subfield of the STA Control field in that Per-STA Profile subelement to 1. [12176]Otherwise, the reporting STA shall set the Complete Profile subfield of the STA Control field in the Per-STA Profile subelement to 0 and the profile of the reported STA is defined as partial profile.

The complete profile of a reported STA consists of all the elements and fields (subject to exceptions discussed later in this subclause) that would be included in a Management [12176]frame, that is of the same subtype as that transmitted by the reporting STA carrying the Basic Multi-Link element, if the reported STA were to transmit the frame.

[10305]NOTE 1—Only Management frames belonging to subtypes (Re)Association Request or (Re)Association Response can include complete profile of a reported STA. A Multi-Link probe response can include complete profile of a reported AP.

[10305]NOTE 2—Only Basic Multi-Link element can include complete profile of a reported STA. Therefore, the above definition of complete profile applies only to a Basic Multi-Link element.

***TGbe editor: Please update the contents of the following paragraph this subclause as shown below:***

Each Per-STA Profile subelement of the Basic Multi-Link element that is included in a Management frame transmitted by a STA affiliated with an MLD and that carries a complete profile shall consist of:

* [10223]the STA Control field (as defined in Figure 9-1002n (STA Control field format)),
* [10223]the STA Info field (as defined in Figure 9-1002o (STA Info field format)), and
* the STA Profile field containing fields and elements based on the following rules:
	+ If the reporting STA is an AP, the STA Profile field corresponding to the reported AP:
		- carries fields and elements in the same order and subject to the conditions as in:
			* Table 9-67 (Probe Response frame body) if the [10602]fields and elements are carried in a Multi-Link probe response.
			* Table 9-63 (Association Response frame body) if the frame is an Association Response frame.
			* Table 9-65 (Reassociation Response frame body) if the frame is a Reassociation Response frame.
		- is subject to inheritance rules defined in 35.3.2.4.1 (Inheritance in the per-STA profile of Basic Multi-Link element)) and exceptions specified in 35.3.2.3 [11034](Fields and Elements not carried in a per-STA profile).
	+ [11034]If the reporting STA is a non-AP STA, the STA Profile field corresponding to the reported non-AP STA:
		- carries fields and elements in the same order and subject to conditions as in:
			* Table 9-62 (Association Request frame body) if the frame is an Association Request frame.
			* Table 9-64 (Reassociation Request frame body) if the frame is [11033]a Reassociation Request frame.
		- is subject to inheritance rules defined in 35.3.2.4.1 (Inheritance in the per-STA profile of Basic Multi-Link element) and exceptions specified in 35.3.2.3 [11034](Fields and Elements not carried in a per-STA profile).
* [11035][10604]Optionally, a Non-Inheritance element appears as the last element in the STA Profile field and carries a list of elements that are not inherited by the reported STA from the reporting STA (see 35.3.2.4.1 (Inheritance in the per-STA profile of Basic Multi-Link element)).

[11034]

[11034]

[11035]

**35.3.2.3 Fields and elements not carried in a per-STA profile**[11034]

***TGbe editor: Please update the contents of this subclause as shown below:***

[11034]An AP affiliated with an AP MLD shall not include Timestamp field, Beacon Interval field, AID field, an SSID element, a BSS Max Idle Period element, a Neighbor Report element, a Reduced Neighbor Report element, a Multiple BSSID element, TIM element, Multiple BSSID-Index element, Multiple BSSID Configuration element or another [13781]Multi-Link element in the Per-STA Profile subelement of the Basic Multi-Link element for a reported AP.

[11034]1 [11719](see 35.3.1)

[11034]2 [11036](i.e., Beacon frame transmitted on the reported link carries Timestamp field and TIM element and Probe Response frame transmitted on the reported link carries Timestamp field)apply at the MLD level and

[11035]A non-AP STA affiliated with a non-AP MLD shall not include Listen Interval field, Current AP Address field, an SSID element or another [13782]Multi-Link element in the Per-STA Profile subelement of the Basic Multi-Link element corresponding to a reported STA.

[11035]3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause** | **Pg/Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 11386 | Gaurang Naik | 9.4.2.312.2.2 | 215.17 | Clarify whether the value carried in the Common Info Length subfield includes or excludes the one octet of the Common Info Length subfield. | Revise as follows: 'The Common Info Length subfield indicates the number of octets in the Common Info field, including the one octet for the Common Info Length subfield.' | **Accepted****TGbe editor: please note, the changes related to this comment are shown in doc 11-22/1003 tagged as 11386** |
| 12822 | Laurent Cariou | 9.4.2.312.2.2 | 215.17 | "The Common Info Length subfield indicates the number of octets in the Common Info field." This language is different than what is typically done for length field which exclude from the length calculation the length field itself. To make sure there is no ambiguity, please modify the sentence to spell out clearly that the Length subfield indicates the number of octets including the Length subfield | as in comment | **Revised**Agree with the comment. The resolution is same as that for CID 11386**TGbe editor: please apply the same resolution as CID 11386** |
| 11394 | Gaurang Naik | 9.4.2.312.2.3 | 222.36 | Clarify whether the value carried in the STA Info Length subfield includes or excludes the one octet of the STA Info Length subfield. | Revise as follows: 'The STA Info Length subfield indicates the number of octets in the STA Info field, including the one octet for the STA Info Length subfield.' | **Accepted****TGbe editor: please note, the changes related to this comment are shown in doc 11-22/1003 tagged as 11394** |
| 12823 | Laurent Cariou | 9.4.2.312.2.3 | 222.36 | "The STA Info Length subfield indicates the number of octets in the Common Info field." This language is different than what is typically done for length field which exclude from the length calculation the length field itself. To make sure there is no ambiguity, please modify the sentence to spell out clearly that the Length subfield indicates the number of octets including the Length subfield | as in comment | **Revised**Agree with the comment. The resolution is same as that for CID 11394**TGbe editor: please apply the same resolution as CID 11394** |
| 11402 | Gaurang Naik | 9.4.2.312.5 | 227.01 | Clarify whether the value carried in the Common Info Length subfield includes or excludes the one octet of the Common Info Length subfield. | Revise as follows: 'The Common Info Length subfield indicates the number of octets in the Common Info field, including the one octet for the Common Info Length subfield.' | **Revised**Agree with the comment. The text is updated to clarify that the Length field includes the length of the field itself.**TGbe editor: please apply the same resolution as CID 11402** |
| 10565 | Abhishek Patil | 9.4.2.312.4 | 225.07 | Beacon frame and Probe Response frame always includes Basic Multi-Link element. Therefore, the MLD MAC Address field is not needed in the ML Reconfiguration element. | Set 'Presence Bitmap' subfield to reserved (including bit B0). Update the description and figure of Common Info field to show only Common Info Length subfield in this field. | **Revised**Agree with the comment. The contents of the subclause are modified as suggested by the comment- i.e., Presence Bitmap set to reserved and AP MLD MAC Address field is removed.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged 10565** |
| 11400 | Gaurang Naik | 9.4.2.312.4 | 225.20 | There seems to be no frames other than Beacon and Probe Response which carries the Reconfig ML element. These frames already carry the Basic ML element with MLD MAC address. So MLD MAC address in the Reconfig ML element is duplicate information. | Please remove MLD MAC address subfield from the Reconfig ML element. Also its presence indicator. Note that Common Info Length will still be required to ensure future compatibility. | **Revised**Agree with the comment. The resolution is same as that for CID 10565**TGbe editor: please apply the same resolution as CID 10565** |
| 13478 | Liwen Chu | 9.4.2.312.4 | 224.48 | The Reconfiguration Multi-Link IE is not future proof element. | Add 1-octet Length Subfield to Common Info fieldAdd 1-octet Length Subfield to STA Info field | **Revised**Agree with the comment. The resolution to CID 10565 addresses this comment.**TGbe editor: please apply the same resolution as CID 10565** |
| 11399 | Gaurang Naik | 9.4.2.312.4 | 225.16 | Need to add the 'Common Info Length' subfield here, too, to ensure forward compatibility of Reconfig ML element. | As in comment | **Revised**Agree with the comment. The resolution is same as that for CID 10565**TGbe editor: please apply the same resolution as CID 10565** |
| 10568 | Abhishek Patil | 9.4.2.312.4 | 226.18 | Why does the sentence (P226L18) say zero or more field? Isn't Delete Timer always present? Therefore, we don't need the presence indicator for 'Delete Timer' subfield in STA Control field. | Delete 'Delete Timer Present' subfield, update figure 9-1002x and relevant text. Update figure 1002y to show STA Info field and STA Control Length field (to make it extensible for the future). Delete the cited paragraph and add a new paragraph to point to figure 1002y. | RevisedAgree with the comment.1. STA MAC Address and Delete Timer are always carried in this variant of ML IE.2. Complete Profile bit is always set to 0 for this variant (per 35.3.6.2)Figure 9-1002x is updated accordingly and unwanted text was deleted.**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged 10568** |
| 10559 | Abhishek Patil | 9.4.2.312.2.2 | 215.17 | Add a NOTE or update the sentence to clarify that the value carried in the Common Info Length subfield indicates the length of the entire Common Info field which includes the 1 octet Length field itself. With the 6 octets for MLD MAC Address field (which is always present), the lowest value this field can have if all optional fields are absent is 7. Provide similar description for the Common Info Length field for other variants of Multi-Link element. | As in comment | **Revised**Agree with the comment. The resolution for CIDs 11386, 11394, 11402, 10565, 10568 addresses this comment. Probe Request variant and Priority Access variant are being addressed in other documents.**TGbe editor: please apply the same resolution as CID 11386, 11394, 11402, 10565, 10568** |
| 10569 | Abhishek Patil | 9.4.2.312.6 | 227.24 | Shouldn't the MLD MAC Address be always carried in this variant? Is there a need for presence indicator for the MLD address field? | Delete the MLD MAC Address Present field, mark Presence Bitmap subfield as reserved and mention that MLD MAC Address is always carried in the Common Info field. Update the format of the Common Info field to include 1 octet of Common Info Length subfield (to make it extensible for the future) and add 6 octet AP MLD MAC Address subfield | **Revised**Agree with the comment. The contents of the subclause are modified as suggested by the comment**TGbe editor, please make changes as shown in doc 11-22/1003r0 tagged 10569** |
| 10570 | Abhishek Patil | 9.4.2.312.6 | 227.41 | There are several reserved bits in the Presence Bitmap subfield to allow future extension of the Common Info field for this variant. For inter-op and future compatibility, we need a Length field. Please see Basic variant of Multi-Link element for guidance. | As in comment | **Revised**Agree with the comment. The resolution is same as that for CID 10569**TGbe editor: please apply the same resolution as CID 10569** |
| 11403 | Gaurang Naik | 9.4.2.312.6 | 227.37 | Need to add the 'Common Info Length' subfield here, too, to ensure forward compatibility of Reconfig ML element. | As in comment | **Revised**Agree with the comment. The resolution is same as that for CID 10569**TGbe editor: please apply the same resolution as CID 10569** |
| 12792 | Laurent Cariou | 35.3.2.1 | 406.29 | It is not clear if the Common Info field length is computed as the number of octets including the Length subfield or not. | clarify that the common info length field is computed as the number of octets of the common info field including the common info length field. | **Revised**Agree with the comment. The resolution for CIDs 11386, 11394, 11402, 10565, 10568 addresses the ambiguity pointed by the comment. The cited text was updated to clarify the intention of the Length field.**TGbe editor, please apply the changes as shown in doc 11-22/1003r0 tagged as 12792** |
| 12793 | Laurent Cariou | 35.3.2.1 | 406.33 | It is not clear if the User Info field length is computed as the number of octets including the Length subfield or not. | clarify that the user info length field is computed as the number of octets of the user info field including the common info length field. | **Revised**Agree with the comment. The resolution for CIDs 11386, 11394, 11402, 10565, 10568 addresses the ambiguity pointed by the comment. The cited text was updated to clarify the intention of the Length field.**TGbe editor, please apply the changes as shown in doc 11-22/1003r0 tagged as 12793** |
| 10599 | Abhishek Patil | 35.3.2.1 | 406.30 | Add a NOTE to clarify that the value carried in the Common Info Length subfield includes the (1 octet) length of the field itself. Same comment applies to the next paragraph on length of STA Info field. | As in comment | **Revised**Agree with the comment. The resolution is same as that for CID 12792 & 12793**TGbe editor: please apply the same resolution as CID 12792 and 12793** |

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

***TGbe editor: Please modify the following paragraph in this subclause as shown below:***

The Common Info Length subfield indicates the number of octets in the Common Info field[11386], including the one octet for the Common Info Length subfield.

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

***TGbe editor: Please modify the following paragraph in this subclause as shown below:***

The STA Info Length subfield indicates the number of octets in the STA Info field[11394], including the one octet for the STA Info Length subfield.

**9.4.2.312.5 TDLS Multi-Link element**

***TGbe editor: Please modify the following paragraph in this subclause as shown below:***

The Common Info Length subfield indicates the number of octets in the Common Info field[11402], including the one octet for the Common Info Length subfield.

**9.4.2.312.4 Reconfiguration Multi-Link element**

[10565]***TGbe editor: Please delete the 2nd (P225L1) and 3rd (P225L16) paragraphs and Figure 9-1002u (P225L6) in this subclause.***

[10565]***TGbe editor: Please add the following sentence as the 2nd paragraph (after executing the above deletion)***

The Presence Bitmap subfield of the Multi-Link Control field is reserved in Reconfiguration Multi-link element.

[10565]***TGbe editor: Please update Figure 9-1002v as shown below***

Common Info Length

 Octets: 1

**Figure 9-1002v—Common Info field of the Reconfiguration Multi-Link element format**

***TGbe editor: Please add the following sentence after Figure 9-1002v:***

[10565]The Common Info Length subfield indicates the number of octets in the Common Info field, including the one octet for the Common Info Length subfield.

***TGbe editor: Please delete the following sentence after Figure 9-1002v:***

[10565]***TGbe editor: Please update Figure 9-1002w as shown below***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Subelement ID | Length | STA Control | STA Info |  |

 Octets: 1 1 2 variable

**Figure 9-1002w—Per-STA Profile subelement for the Reconfiguration Multi-Link element**

[10568]***TGbe editor: Please modify the following paragraphs and Figure 9-1002x in this subclause as shown below:***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0 |  | B3 | B4 |  |  | B5 |  | B15 |
| i | Link ID | Complete Profile |  |  | Reserve | ed |
| Bits: |  | 4 |  | 1 |  |  |  | 11 |  |

**Figure 9-1002x—STA Control field format for the Reconfiguration Multi-Link element**

The Complete Profile subfield is set to 0.

The format of the STA Info field is defined in Figure 9-1002xx (STA Info field format for the Reconfiguration Multi-Link element).

[10568]***TGbe editor: Please add the following Figure:***

|  |  |  |
| --- | --- | --- |
| STA Info Length | STA MAC Address | Delete Timer |

 Octets: 1 1 2

**Figure 9-1002xx—** **STA Info field format for the Reconfiguration Multi-Link element**

The STA Info Length subfield indicates the number of octets in the STA Info field, including the one octet for the STA Info Length subfield.

[10568]***TGbe editor: Please delete the paragraph starting “The format of the Delete Timer” and Figure 9-1002y in this subclause.***

**9.4.2.312.6 Priority Access Multi-Link element**

[10569]***TGbe editor: Please delete the 2nd (P227L18) and 3rd (P227L33) paragraphs and Figure 9-1002aa (P227L23) in this subclause.***

[10569]***TGbe editor: Please add the following sentence as the 2nd paragraph (after executing the above deletion)***

The Presence Bitmap subfield of the Multi-Link Control field is reserved in Priority Access Multi-link element.

[10569]***TGbe editor: Please update Figure 9-1002ab as shown below***

Common Info Length

AP MLD MAC Address

 Octets: 1 6

**Figure 9-1002ab—Common Info field of the Priority Access Multi-Link element format**

***TGbe editor: Please add the following sentence after Figure 9-1002ab:***

[10569]The Common Info Length subfield indicates the number of octets in the Common Info field, including the one octet for the Common Info Length subfield.

**35.3.2 Advertisement of multi-link information in Multi-Link element**

**35.3.2.1 General**

***TGbe editor: Please modify the following paragraphs in this subclause as shown below:***

[12792]A STA affiliated with an MLD that receives a frame carrying a Multi-Link element shall determine the length of the Common Info field based on the Common Info Length subfield of the Common Info field. If a STA receives an unrecognized length value in the Common Info Length subfield, it shall process the fields up to the length value known to it and ignore the rest of the fields in the Common Info field.

[12792]NOTE – The Common Info Length subfield allows future extension of the Common Info field.

[12793]A STA affiliated with an MLD that receives a frame carrying a Multi-Link element that carries a Per-STA Profile subelement shall determine the length of the STA Info field based on the STA Info Length subfield of the STA Info field. If a STA receives an unrecognized length value in the STA Info Length subfield, it shall process the fields up to the length value known to it and ignore the rest of the fields in the STA Info field.

[12793]NOTE – The STA Info Length subfield allows future extension of the STA Info field.