IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CC36 Resolution for CIDs in Clause 35.3.2 | | | | |
| Date: July 19, 2021 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Gaurang Naik | Qualcomm Inc. |  |  | gnaik@qti.qualcomm.com |
| Abhishek Patil | Qualcomm Inc. |  |  | appatil@qti.qualcomm.com |
| Alfred Asterjadhi | Qualcomm Inc. |  |  | aasterja@qti.qualcomm.com |
| George Cherian | Qualcomm Inc. |  |  | gcherian@qti.qualcomm.com |
| Duncan Ho | Qualcomm Inc. |  |  | dho@qti.qualcomm.com |
| Yanjun Sun | Qualcomm Inc. |  |  | yanjuns@qti.qualcomm.com |
| Abdel Karim Ajami | Qualcomm Inc. |  |  | aajami@qti.qualcomm.com |
| Insun Jang | LGE |  |  |  |
| Tomo Adachi | Toshiba |  |  |  |
| Yiqing Li | Huawei |  |  |  |
| Arik Klein | Huawei |  |  |  |
| Rubayet Shafin | SRA |  |  |  |
| Rojan Chitrakar | Panasonic |  |  |  |

Abstract

This submission proposes resolutions for following 56 CIDs received for TGbe CC36:

, 7715, 6864, 7716, 7365, 5736, 5738, 5737, 5735, 4246, 7717, 5390, 4108, 4361, 5600, 5801, 5913, 6221, 6566, 6870, 8223, 8330, 7805, 5391, 4035, 6567, 4377, 6534, 7811, 7847, 8224, 5045, 5601, 6222, 6395, 6872, 7059, 7718, 6568, 4362, 5250, 5966, 7514, 6570, 6396, 6569, 5046, 6878, 5047, 7395, 5739, 6397, 8225, 4249

**Revisions:**

* Rev 0: Initial version of the document.
* Rev 1: Changes made based on offline feedback from members.
* Rev 2: Minor changes made based on offline feedback from members
  + Changes marked as (#1) indicate correction of the “Probe Response variant Multi-Link element” to “Probe Request variant Multi-Link element”
* Rev 3: Changes made based on suggestions from members during the live call on 07/21
  + Changes related to (#1) removed as they are addressed in doc 1085
  + Additional changes based on offline feedback from members highlighted
  + Deferred CIDs 4034, 5375, and 8035

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** | **Pg/Ln** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| 4034 | Abhishek Patil | 35.3.2.1 | 246.33 | Throughout the spec, there are many instances of 'a Probe Request frame which is not an ML probe response'. The spec text will be greatly simplified if we use the terms 'basic' probe request/response to differentiate from the ML probe request/response. | Replace all instances of "Probe Response frame which is not an ML probe response" with basic probe response. Replace paragraph on pg 252 line 19 as follows: "A Probe Response frame is termed as ML probe resonse if the following conditions are met: - the frame is transmitted in response to receiving an ML probe request - the frame includes Basic variant Multi-Link element which can carry complete or partial per-STA profile(s), based on the soliciting request, for each of the requested AP(s) of the AP MLD. Otherwise, the Probe Response frame is termed as basic probe response." | **Revised**  Definitions for ML probe request and ML probe response frames were added in Clause 3. Within the scope of Clause 35.3, “basic Probe Request” and “basic Probe Response” frames were defined as Probe Request/Response frames that are not ML probe request/response, to simplify the terms like “Probe Request/Response frame, that is not an ML probe request/response”.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 4034** |
| 5375 | Jay Yang | 35.3.2.1 | 246.38 | a Probe Response frame, which is an ML probe response, make it simple, reword it as in a ML probe response frame? | as the comments. | **Revised**  Definitions for ML probe request and ML probe response frames were added in Clause 3. Within the scope of Clause 35.3, “basic Probe Request” and “basic Probe Response” frames were defined as Probe Request/Response frames that are not ML probe request/response, to simplify the terms like “Probe Request/Response frame, that is not an ML probe request/response”.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 4034** |
| 8035 | Yuchen Guo | 35.3.2.2 | 260.17 | "if the frame is a Probe Response frame, that is an ML probe response" is a little bit redundant. Suggest to change it to be "if the frame is an ML Probe Response frame" | as in comment | **Revised**  Definitions for ML probe request and ML probe response frames were added in Clause 3. Within the scope of Clause 35.3, “basic Probe Request” and “basic Probe Response” frames were defined as Probe Request/Response frames that are not ML probe request/response, to simplify the terms like “Probe Request/Response frame, that is not an ML probe request/response”.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 4034** |
| 7715 | Xiaofei Wang | 35.3.2.1 | 246.52 | it is not clear which frame is the "the Authentication frame" is. Change "the Authentication frame" to "an Authentication frame". | as in comment | **Revised**  The identified statement was revised. Similar change was made for the (Re)Association Request frame.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 7715** |
| 6864 | Rubayet Shafin | 35.3.2.1 | 247.01 | why the non-AP MLD side is not included in the note? | Please add sentences describing non-AP MLD side behavior. | **Revised**  Agree with the comment. The meaning of Link ID when included in a frame transmitted by a STA of a non-AP MLD is clarified in the note. Additionally, the earlier note was revised as normative text.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 6864** |
| 7716 | Xiaofei Wang | 35.3.2.1 | 246.61 | the sentence "A STA affiliated with an MLD shall provide an indication of the presence of subfields carried in the Common Info field of the Multi-Link element via the subfields in the Multi-Link Control field." is a standard practice for frame formats and it should not be in the clause 35. Delete this sentence. | delete the sentence. | **Accepted** |
| 7365 | Stephen McCann | 35.3.2.1 | 247.06 | The text "of its MLD" is ambiguous, as it is not always clear what or who "it" is. | Change all occurances of "of its MLD" throughout the draft to "within that MLD". | **Revised**  Agree with the comment. To remain consistent with the existing text in the spec, “with its MLD” was changed to “with the same MLD as the STA”.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 7365** |
| 5736 | Laurent Cariou | 35.3.2.2 | 247.25 | Should this paragraph be put in the general subclause 35.3.2.1? | as in comment | **Revised**  Agree with the comment. The statement was moved to the General subclause 35.3.2.1.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 5736** |
| 5738 | Laurent Cariou | 35.3.2.2 | 247.45 | Should this paragraph be put in the general subclause 35.3.2.1? | as in comment | **Revised**  The identified statement was moved to the General subclause, i.e., 35.3.2.1.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 5738** |
| 5737 | Laurent Cariou | 35.3.2.2 | 247.29 | Could we make it clear that the complete profile definition only applies to basic variant ML element | as in comment | **Revised**  A note was inserted below the identified paragraph to clarify that the definition of complete profile applies only to a Basic variant Multi-Link element. In addition, for consistency, “complete information” was revised to “complete profile”.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 5737** |
| 5735 | Laurent Cariou | 35.3.2.2 | 247.14 | Should we specify that this complete profile field is used in the context of Basic Variant ML element? Cause things are different for probe request variant ML element. Things would also be cleaner if we use another field name for probe request variant, something like "complete profile requested", | as in comment | **Revised**  Agree with the comment. For the first part of the comment, changes were made for the resolution of CID 5737.  Regarding the “Complete Profile” subfield in the Probe Request variant Multi-Link element, the name was changed to “Complete Profile Requested” for clear distinction between the subfield’s role in the two Multi-Link element variants.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 5735** |
| 4246 | Alfred Asterjadhi | 35.3.2.2 | 247.21 | Not clear of the intent of this statement. I think it is obvious that if there is something optional then you need the indication of the presence. But that would be in terms of signaling in the element itself not as a normative language here. | As in comment. | **Revised**  Agree with the comment. The identified statement was deleted.  **TGbe editor please implement changes as proposed in CID 4246 and shown in doc 11-21/1087r3 tagged as 4246** |
| 7717 | Xiaofei Wang | 35.3.2.1 | 247.21 | the sentence "The subfields of the STA Control field in the Per-STA Profile subelement corresponding to a reported STA shall provide an indication of the presence of optional subfields carried in the STA Info field." is a standard practice for frame formats and it should not be in the clause 35. Delete this sentence. | delete the sentence. | **Revised**  Agree with the comment. The identified statement was deleted.  **TGbe editor please implement changes as proposed in CID 4246 and shown in doc 11-21/1087r3 tagged as 4246** |
| 5390 | Jeongki Kim | 35.3.2.2 | 274.21 | "The subfields of the STA Control field..." text seems like informative text and explanation of the STA Control field. Not sure that we need to describe it in this subclause in which we need to describe normative text for STAs mainly. If it's just informative text, remove it. Otherwise, move the sentece to subclause 9. | As per comment | **Revised**  Agree with the comment. The identified statement was deleted.  **TGbe editor please implement changes as proposed in CID 4246 and shown in doc 11-21/1087r3 tagged as 4246** |
| 4108 | Abhishek Patil | 35.3.2.2 | 247.30 | The paragraph describing the case of complete profile must follow the paragraph that describes the indication that the Per-STA Profile subelement is carrying complete information. | Move the paragraph starting "The complete information of a reported STA in a Management frame, ..." as the 2nd paragraph in this subclause. | **Revised**  As resolutions for CID 4246 and 5736, the previous paragraphs were moved or deleted. As a result, the identified paragraph automatically became the 2nd paragraph. Therefore, no further changes are required.  **TGbe editor please implement changes as proposed in CID 4246 and CID 5736 and shown in doc 11-21/1087r3 tagged as 4246 and CID 5736.** |
| 4361 | Arik Klein | 35.3.2.2 | 247.35 | Correct the following sentence "...if the reported AP were to transmit the Association \*Request\* frame" which contraidcts with both the former part of the same sentence and the fact that AP does not send an Association Request. | The correct sentence should be "...if the reported AP was to transmit the Association \*Response\* frame" | **Revised**  The error was corrected. “Request” was changed to “Response”.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 4361** |
| 5600 | John Wullert | 35.3.2.2 | 247.36 | Earlier reference in the paragraph is to the Association Response frame, but later reference says Association Request. | Change "Association Request" to "Association Response" | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 5801 | Lei Huang | 35.3.2.2 | 247.36 | association request frame should be changed to association response frame. | as in the comment | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 5913 | Li-Hsiang Sun | 35.3.2.2 | 247.36 | "if the reported AP were to transmit the Association Request frame." | change Association Request frame to management frame | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 6221 | Mikael Lorgeoux | 35.3.2.2 | 247.36 | Typo at the end of sentence ".... the reported AP were to transmit the Association Request frame." | Replace the word "Request" by "Response" in the sentence. | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 6566 | Payam Torab Jahromi | 35.3.2.2 | 247.36 | AP sends Association Response frames. | Change Association Request to Association Response | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 6870 | Rubayet Shafin | 35.3.2.2 | 247.36 | it should not be "...were to transmit the Association Request frame" | Please change "Association Request frame" to "Association Response frame" | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 8223 | Yuxin LU | 35.3.2.2 Advertisement of complete or partial per-link information | 247.36 | Change "were to transmit the Association Request frame" to "were to transmit the Association Response frame" | As in comment | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 8330 | Zhiqiang Han | 35.3.2.2 | 247.36 | I',m confused about this sentence. the reported AP were to transmit the Association Request frame? in which case, AP transmits an Association Request? | Please clarify it | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 7805 | Yiqing Li | 35.3.2.2 | 247.37 | The example here is about transmitting an Association Response frame, not an Association Request frame. | Change "if the reported AP were to transmit the Association Request frame" to "if the reported AP were to tranmist the Association Response frame" | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 5391 | Jeongki Kim | 35.3.2.2 | 274.35 | "The complete information consists of elements and fields that would be included in the frame if the reported AP were to transmit the Association Request frame.", Association Response frame seems to be correct. Change the Association Request to Association Response. | As per comment | **Revised**  Agree with comment. “Request” was changed to “Response”.  **TGbe editor please implement changes as proposed in CID 4361 and shown in doc 11-21/1087r3 tagged as 4361.** |
| 4035 | Abhishek Patil | 35.3.2.2 | 247.39 | Clause 35.3.9 provides exception when the Beacon and (basic) probe response frame would carry per-STA profile for a reported AP containing partial information. | Update the sentence as: "An AP affiliated with an AP MLD shall not include a complete profile of a reported AP affiliated with the same AP MLD in the transmitted Beacon frame or a Probe Response frame that is not an ML probe response as defined in 35.3.4.4 (Multi-Link element usage rules in the context of discovery) unless the conditions in 35.3.9 (General procedures) are met." | **Revised**  An AP affiliated with an AP MLD never sends a complete profile of another AP affiliated with the same AP MLD in Beacon or Probe Response frames. A note was inserted to clarify that subclause 35.3.10 specifies conditions under which the AP can carry partial profile for a reported AP.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 4035** |
| 6567 | Payam Torab Jahromi | 35.3.2.2 | 247.55 | Use plural | Change "a complete profile of other STAs" to "complete profiles of other STAs" | **Accepted** |
| 4377 | Arik Klein | 35.3.2.2 | 247.60 | Need to add a verb with a preceding "shall/should" to the following sentence: "An AP affiliated with an AP MLD, in (Re)Association Response frame it transmits, a complete profile of other APs affiliated with its MLD, that are operating on the links | Please correct the sentence as follows: "An AP affiliated with an AP MLD \*shall include\*, in (Re)Association Response frame it transmits, a complete profile of other APs affiliated with its MLD, that are operating on the links..." | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 6534 | Pascal VIGER | 35.3.2.2 | 247.60 | The sentence "An AP affiliated with an AP MLD, ..., a complete profile of other APs affiliated with its MLD" has no verb. Thus sentence does not provide a technical requirement. | as comment. | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 7811 | Yiqing Li | 35.3.2.2 | 247.60 | "shall include" is lacked in the sentence "An AP affiliated with an AP MLD, in (Re)Association Response frame it transmits, a complete profile..." | As commented. | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 7847 | Yonggang Fang | 35.3.2.2 | 247.60 | It is not a complete sentence "An AP affiliated with an AP MLD, in (Re)Association Response frame it transmits, a complete profile of other APs affiliated with its MLD, that are operating on the links that are accepted as part of a successful multi-link setup ... " | Please update text | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 8224 | Yuxin LU | 35.3.2.2 Advertisement of complete or partial per-link information | 247.60 | The sentence is not complete. Change "An AP affiliated with an AP MLD, in (Re)Association Response frame it transmits" to "An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits" | As in comment | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 5045 | Gaurang Naik | 35.3.2.2 | 247.61 | The statement is incomplete. | Insert "shall include" after "An AP affiliated with an AP MLD" | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 5601 | John Wullert | 35.3.2.3 | 247.61 | Missing verbs | Revise to "An AP affiliated with an AP MLD shall include, in the (Re)Association Response frames it transmits..." | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 6222 | Mikael Lorgeoux | 35.3.2.2 | 247.61 | The sentence: "An AP affiliated with an AP MLD, ....." is incomplete. | The following underline text may be added in the sentence: "An AP affiliated with an AP MLD shall include, ..." | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 6395 | Muhammad Kumail Haider | 35.3.2.2 | 247.61 | Add "shall include" after "AP MLD" | as in comment | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 6872 | Rubayet Shafin | 35.3.2.2 | 247.61 | This sentence is not correct. Missing the verb. | Please update the sentence by incorporating "shall include" as following: " An AP affiliated with an AP MLD shall include,.." | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 7059 | Sigurd Schelstraete | 35.3.2.2 | 247.61 | Incomplete sentence? "An AP affiliated with an AP MLD, in (Re)Association Response frame it transmits, a complete profile of other APs ..." | Change to "An AP affiliated with an AP MLD, \*\*shall include\*\*, ..."? | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 7718 | Xiaofei Wang | 35.3.2.2 | 247.61 | "shall include" is missing in the sentence. Add "shall include" | as in comment | **Revised**  The missing verb was added. The statement was revised as “An AP affiliated with an AP MLD shall include, in (Re)Association Response frame it transmits …”  **TGbe editor please implement changes as proposed in CID 4377 and shown in doc 11-21/1087r3 tagged as 4377** |
| 6568 | Payam Torab Jahromi | 35.3.2.2 | 247.61 | Use plural | Change "a complete profile of other APs" to "complete profiles of other APs" | **Accepted** |
| 4362 | Arik Klein | 35.3.2.2 | 247.62 | Need to replace the 2nd consecutive "that" with "and" in the following sentence: "that are operating on the links \*that\* are accepted as part..." | Correct the sentence as follows: "that are operating on the links \*and\* are accepted as part.." | **Revised**  Agree with the comment.  **TGbe editor please implement changes as proposed in CID 4362 and shown in doc 11-21/1087r3 tagged as 4362** |
| 5250 | Insun Jang | 35.3.2.2 | 247.62 | For "....the links that are accepted as part of a successful multi-link setup..." we've agreed that although a link is not accepted, the comple profile of the link is included. Need to change the conditions of the links. | As in the comment, need to change the conditions the links, e.g., requested as part of a multi-link setup | **Revised**  The statement was modified from “that are accepted as part of a successful multi-link setup” to “that are requested as part of a successful multi-link setup”.  **TGbe editor please implement changes as proposed in CID 5250 and shown in doc 11-21/1087r3 tagged as 5250** |
| 5966 | Liwen Chu | 35.3.2.2 | 247.60 | The complete profile of the rejected link should also be included just as the rjected Association in Association Response frame. | As in comment | **Revised**  The statement was modified from “that are accepted as part of a successful multi-link setup” to “that are requested as part of a successful multi-link setup”.  **TGbe editor please implement changes as proposed in CID 5250 and shown in doc 11-21/1087r3 tagged as 5250** |
| 7514 | Tomoko Adachi | 35.3.2.2 | 248.01 | "... a Management frame transmitted by an STA affiliated with ...". For the term "STA", indefinite "a" is used. | Change it to read "... a Management frame transmitted by a STA affiliated with ...". | **Accepted** |
| 6570 | Payam Torab Jahromi | 35.3.2.2 | 248.02 | Per-STA Profile subelement is not a profile, it contains a profile. | Change "each Per-STA Profile subelement, that is a complete profile, shall" to "each Per-STA Profile subelement that contains a complete profile shall" (no commas) | **Accepted** |
| 6396 | Muhammad Kumail Haider | 35.3.2.2 | 248.02 | "shall comprise of the followings" --> "shall comprise the folllowing" | as in comment | **Accepted** |
| 6569 | Payam Torab Jahromi | 35.3.2.2 | 248.02 | Delete "of" | Chenge "comprise of" to "comprise" | **Revised**  The statement was revised as a resolution for CID 6396. No further changes are required.  **TGbe editor please implement changes as proposed in CID 6396 and shown in doc 11-21/1087r3 tagged as 6396.** |
| 5046 | Gaurang Naik | 35.3.2.2 | 248.02 | Typo in the word "followings" | "followings" -> "following" | **Revised**  The statement was revised as a resolution for CID 6396. No further changes are required.  **TGbe editor please implement changes as proposed in CID 6396 and shown in doc 11-21/1087r3 tagged as 6396.** |
| 6878 | Rubayet Shafin | 35.3.2.2 | 249.13 | This sentence says that the STA Control field is the first field of Per-STA Profile subelement. But this is not true. Subelement ID is the first field. Please correct this sentence. | as in comment | **Revised**  The part of the statement indicating that the STA Control field is the first field of the Per-STA Profile subelement was deleted.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 6878** |
| 5047 | Gaurang Naik | 35.3.2.3 | 249.25 | Replace "STAs of an MLD" with "STAs affiliated with an MLD" | As in comment | **Accepted** |
| 7395 | Stephen McCann | 35.3.2.3 | 249.25 | typo "It is possible for STAs of an MLD..." | Change the cited text to "It is possible for STAs affiliated with an MLD" | **Accepted** |
| 5739 | Laurent Cariou | 35.3.2.3 | 249.28 | "As a result, some elements carried in the per-STA profile for a reported STA can be identical to same elements for the reporting STA" - please fix the sentence | as in comment | **Revised**  The statement was revised to provide more clarifications.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 5739** |
| 6397 | Muhammad Kumail Haider | ﻿35.3.2.3 | 249.28 | suggest to replace "to same elements" to "to the corresponding elements" | as in comment | **Revised**  The statement was revised to provide more clarifications as a resolution for CID 5739. No further changes are required for the resolution of this CID.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 5739** |
| 8225 | Yuxin LU | 35.3.2.3 Inheritance in a per-STA profile | 249.29 | "it inherits the elements from the reporting STA", suggest to add a normative verb, such as "it shall inherit" | As in comment | **Revised**  ~~Agree with the comment. The normative verb “shall” was inserted at the identified location.~~  Since the paragraph is descriptive, adding a normative verb is not appropriate. Instead, the next paragraph was revised to add a subject to the normative behavior.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 8225** |
| 4249 | Alfred Asterjadhi | 35.3.2.3 | 249.31 | What inheritance mechanism applies to the case of partial information? Please clarify | As in comment. | **Revised**  A statement was added in the paragraph to clarify that no inheritance mechanism applies when the Per-STA Profile subelement carries partial profile.  **Tgbe editor please implement changes as shown in doc 11-21/1087r3 tagged as 4249** |

***TGbe editor: Please note Baseline is 11be D1.01***

**3.2 Definitions specific to IEEE 802.11**

***TGbe editor: Please add the following definitions to clause 3.2***

**MultiLink (ML) probe request:** A directed Probe Request frame that includes a Probe Request variant Multi-Link element and is sent by a STA affiliated with a non-AP MLD as defined in 35.3.4.2 (Use of ML probe request and response). (#4034)

**Multi-Link (ML) probe response:** A Probe Response frame sent by an AP affiliated with an AP MLD that includes a Basic variant Multi-Link element and is sent in response to an ML probe request as defined in 35.3.4.2 (Use of ML probe request and response) (#4034)

**35.3.1 General**

***TGbe editor: Please add the following paragraphs at the end of Clause 35.3.1***

In the subclauses below, a *basic Probe Request frame* refers to a Probe Request frame that is not a *Multi-Link (ML) probe request and* a *basic Probe Response frame* refers to a Probe Response frame that is not an *ML probe response*. (#4034)

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

**35.3.2.1 General**

***TGbe editor: Please replace all instances of “Probe Request/Response frame, which is not an ML probe request/response” and all instances of “Probe Request/Response frame that is not an ML probe request/response” throughout Clause 35.3 and not shown in this document, with “basic Probe Request/Response frame” (#4034).***

***TGbe editor: Please replace all instances of “Probe Request/Response frame, which is an ML probe request/response” and all instances of “Probe Request/Response frame that is an ML probe request/response” throughout Clause 35.3 and not shown in this document, with “ML probe request/response” (#4034).***

***TGbe editor: Please revise the paragraphs of the subclause as shown below (all paragraphs are shown):[CID 4034, 7715, 6864, 7716, 7365, 5736, 5738]***

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 variant Multi-Link element in a Beacon frame or a basic Probe Response frame (#4034) that it transmits.

An AP affiliated with an AP MLD shall follow the rules in 35.3.4.2 (Use of ML probe request and response) for including a Basic variant Multi-Link element in an ML probe response (#4034)that it transmits.

An AP affiliated with an AP MLD shall follow the rules in 35.3.5.4 (Usage and rules of Basic variant Multi-Link element in the context of multi-link setup) for including a Basic variant Multi-Link element in a (Re)Association Response frame and in an Authentication frame that it transmits.

A STA affiliated with a non-AP MLD shall follow the rules in 35.3.4.2 (Use of ML probe request and response) for including a Probe Request variant Multi-Link element in an ML (#4034) probe request 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 variant Multi-Link element in the context of multi-link setup) for including a Basic variant Multi-Link element in a (#7715) (Re)Association Request frame and in an (#7715) Authentication frame that it transmits.

The value carried in the Link ID subfield of the Per-STA Profile subelement carried in a Basic variant Multi-Link element is unique to every AP affiliated with an AP MLD and is representation of the tuple consisting of Operating Class, Operating Channel, and BSSID of the AP affiliated with the AP MLD following the rules defined in 35.3.4.4 (Multi-Link element usage rules in the context of discovery). (#6864)

(#6864)NOTE – When a STA affiliated with a non-AP MLD includes a Basic variant Multi-Link element in a (Re)Association Request frame, the Link ID subfield of the STA Control field contained in a Per-STA Profile subelement identifies the link requested for Multi-Link (re)setup. When a STA affiliated with a non-AP MLD includes a Probe Request variant Multi-Link element in an ML probe request, the Link ID subfield of the STA Control field contained in a Per-STA Profile subelement identifies the AP whose information is requested in the ML probe request (#6864).

(#7716)A STA affiliated with an MLD may include Link Info field in the Basic variant Multi-Link element that it transmits to provide complete or partial information of another STA affiliated with the same MLD as the STA (#7365) as defined in 35.3.2.2 (Advertisement of complete or partial per-link information).

Basic variant (#CID 5736)

(#5738)

**35.3.2.2 Advertisement of complete or partial information**

***TGbe editor: Please revise the following paragraphs of subclause 35.3.2.2 as shown below [CID 4034, 4035, 4246, 4361, 4362, 4377, 5250, 5736, 5737, 5738, 6567, 6568, 7365]***

If a reporting STA affiliated with an MLD transmits a frame that carries a Basic variant Multi-Link element, which includes a Per-STA Profile subelement that carries the complete profile for a reported STA, then the STA shall set the Complete Profile subfield of the STA Control field in that Per-STA Profile subelement to 1 . (#5737) Otherwise, the reporting STA shall set the Complete Profile subfield of the STA Control field in the Per-STA Profile subelement to 0.

(#4246) (#5736)

The complete profile (#5737) of a reported STA in a Management frame, carrying Basic variant Multi-Link element, is defined as all the elements and fields that would be included in the frame (subject to the inheritance rules as defined in 35.3.2.3 (Inheritance in a per-STA profile)) (#5737) if the reported STA were to transmit that Management frame. For example, when an AP affiliated with an AP MLD transmits an Association Response frame, the Per-STA Profile subelement corresponding to another AP affiliated with the AP MLD carries complete information of the other AP, subject to inheritance rule. The complete profile (#5737) consists of elements and fields that would be included in the frame if the reported AP were to transmit the Association Response frame (#4361).

NOTE – The above definition of complete profile applies only to a Basic variant Multi-Link element (#5737).

An AP affiliated with an AP MLD shall not include a complete profile of a reported AP affiliated with the same AP MLD in the Beacon frame or a basic Probe Response frame that it transmits(#4034) (#4035)

NOTE – See 35.3.10 (Multi-link general procedures) for conditions when a Beacon or a basic Probe Response frame transmitted by an AP affiliated with an AP MLD carries a partial profile of reported AP(s). (#4034) (#4035)

(#5738)

An AP affiliated with an AP MLD may include either the complete profile or the partial profile of a reported AP affiliated with the same AP MLD in an ML probe response that it transmits (#4034) as defined in 35.3.4.2 (Use of ML probe request and response).

A STA affiliated with a non-AP MLD shall include, in a (Re)Association Request frame it transmits, complete profiles (#6567) of other STAs affiliated with the same MLD as the STA (#7365), that are capable of operating on the links that it is requesting to be part of a multi-link setup (also see 35.3.5.4 (Usage and rules of Basic variant Multi- Link element in the context of multi-link setup)).

An AP affiliated with an AP MLD shall include (#4377), in a (Re)Association Response frame it transmits, complete profiles (#6568) of other APs affiliated with the same MLD as the AP (#7365), that are operating on the links and (#4362) are requested (#5250) as part of a successful multi-link setup (also see 35.3.5.4 (Usage and rules of Basic variant Multi-Link element in the context of multi-link setup)).

***TGbe editor: Please revise the following bullet points as shown below [CID 7514, 6570, 6396, 4034]***

When carried in a Management frame transmitted by a (#7514) STA affiliated with an MLD, each Per-STA Profile subelement that contains a complete profile (#6570) shall comprise (#6396) the following (#6396):

* The STA Control field (see Figure 9-788eo (STA Control field format)),
* the STA Info field (presence of subfields within the field are signaled in the STA Control field), and
* the STA Profile field with the following rules:
  + If the reporting STA is an AP, the STA Profile field corresponding to the reported AP carries fields and elements (subject to inheritance rules defined in 35.3.2.3 (Inheritance in a per-STA profile)) in the order defined in Table 9-39 (Probe Response frame body) if the STA Profile field is included in an ML probe response (#4034), Table 9-35 (Association Response frame body), if the frame is an Association Response frame, or Table 9-37 (Reassociation Response frame body), if the frame is a Reassociation Response frame.
  + If the reporting STA is a non-AP STA, the STA Profile field corresponding to the reported non-AP STA carries fields and elements (subject to inheritance rules defined in 35.3.2.3 (Inheritance in a per-STA profile)) in the order defined in Table 9-34 (Association Request frame body) if the frame is an Association Request frame, or Table 9-36 (Reassociation Request frame body) if the frame is a Reassociation Request frame.
  + If the reporting STA is an AP, the Timestamp field, Beacon Interval field, AID field, SSID element, TIM element, and BSS Max Idle Period element are not included in the STA Pro- file field.
  + If the reporting STA is a non-AP STA, the Listen Interval field and Current AP Address field are not included in the STA Profile field.
  + Optionally, a Non-Inheritance element appears as the last element in the profile and carries a list of elements that are not inherited by the reported STA from the reporting STA (see 35.3.2.3 (Inheritance in a per-STA profile)).

***TGbe editor: Please revise the paragraph after Figure 35-3 (Example of Basic variant Multi-Link element in an Association Request frame) as shown below [CID 6878]***

In Figure 35-3 (Example of Basic variant Multi-Link element in an Association Request frame), a STA affiliated with a non-AP MLD transmits an Association Request frame which includes Basic variant Multi-Link element that carries the complete profile of two other STAs affiliated with its non-AP MLD (STA x and STA y). The figure expands the Per-STA profile for one of the reported STAs. The Type subfield of the Multi-Link Control field is set to 0 to indicate that the Multi-Link element is a Basic variant Multi-Link element. The Common Info field carries information that applies to the MLD level as described in 9.4.2.295b.2 (Basic variant Multi-Link element). In this example, only the MLD MAC Address field is shown. However, there can be other fields present in the common info portion whose presence is signaled via the subfields in the Multi-Link Control field. Each Per-STA Profile subelement in the Link Info field carries the complete profile, with inheritance applied, of a reported STA affiliated with the non-AP MLD. Each Per-STA Profile subelement carries the STA Control field (#6878)followed by the STA Info field and the STA Profile field. In this example, only the STA MAC Address field is shown. However, there can be other fields present in the STA info portion whose presence is signaled via the subfields in the STA Control field. The STA Profile field carries variable number of fields and elements in the order defined in Table 9-34 (Association Request frame body) with inheritance applied (see 35.3.2.3 (Inheritance in a per-STA profile)).

**35.3.2.3 Inheritance in a per-STA profile**

***TGbe editor: Please note that the following subclause title was inserted as part of approved text in doc 11-21/500r5***

**35.3.2.3.1 Inheritance in the per-STA profile of Basic variant Multi-Link element**

***TGbe editor: Please revise the following two paragraphs as shown below [CID 5047, 5739, 8225, 4249]***

It is possible for STAs affiliated with an MLD (#5047) to have similar capabilities and operational parameters on different links. As a result, some elements carried in the per-STA profile for a reported STA might be identical to corresponding elements carried for the reporting STA outside the Basic variant Multi-Link element (#5739). To reduce the frame size, when a per-STA profile carries complete information for a reported STA, it inherits the elements from the reporting STA.

A STA affiliated with an MLD shall apply the inheritance mechanism described in this subclause (#8225) only when the Per-STA Profile subelement of the Basic variant Multi-Link element carries complete profile (#5737) of the reported STA (i.e., the Complete Profile subfield in the STA Control field of the subelement is set to 1). When a Per-STA Profile subelement of the Basic variant Multi-Link element carries partial profile for a reported STA, the transmitting STA shall include all the elements that constitute the partial information without using any inheritance mechanism. (#4249)

**9.4.2.295b.3 Probe Request variant Multi-Link element**

***TGbe editor: Please revise figure 9-788es (STA Control field of the Probe Response variant Multi-Link element format)***

The format of the STA Control field is defined in [Figure 9-788es (STA Control field of the Probe](#bookmark112) [Response variant Multi-Link element format)](#bookmark112).

B0 B3 B4 B5 B15

|  |  |  |
| --- | --- | --- |
| Link ID | Complete Profile Requested | Reserved |

Bits: 4 1 11

**Figure 9-788es—STA Control field of the Probe Response variant Multi-Link element for mat (#5735)**

The Link ID subfield specifies a value that uniquely identifies the AP from which information is requested.

The Complete Profile Requested (#5735) subfield is set to 1 when complete information is requested from the AP as defined in 35.3.4.2 (Use of ML probe request and response). Otherwise, the subfield is set to 0.

SP: Do you agree to the resolutions provided in doc 11-21/1087r3 for the following CIDs for inclusion in the latest 11be draft?

, 7715, 6864, 7716, 7365, 5736, 5738, 5737, 5735, 4246, 7717, 5390, 4108, 4361, 5600, 5801, 5913, 6221, 6566, 6870, 8223, 8330, 7805, 5391, 4035, 6567, 4377, 6534, 7811, 7847, 8224, 5045, 5601, 6222, 6395, 6872, 7059, 7718, 6568, 4362, 5250, 5966, 7514, 6570, 6396, 6569, 5046, 6878, 5047, 7395, 5739, 6397, 8225, 4249