IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CC36 Resolution for CIDs in Clause 35.3.4.3 | | | | |
| Date: October 28, 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 |

Abstract

This submission proposes resolutions for following 5 CIDs received for TGbe CC36:

6687, 4045, 4740, 4741, 4046

Revisions:

* Rev 0: Initial version of the document.

Interpretation of a Motion to Adopt

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

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

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Pg/Ln** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| 6687 | Robert Stacey | 253/18 | 35.3.4.3 | "non-AP" is a STA (and now MLD) modifier. It cannot be used alone. | Change "non-AP" to "non-AP MLD" in title | **Revised**  Agree with the commenter. The title of the subclause was revised to Non-AP MLD behavior.  **Tgbe editor please implement changes as shown in doc 11-21/1086r0 tagged as 6687** |
| 4740 | Chunyu Hu | 253/26 | 35.3.4.3 | This sentence is structured in a not read-friendly way: X shall be able to do something ... when receiving an element in a frame transmitted by Y. Should reword to improve the readability as follows: X shall be able to do something ... when receiving a frame from Y that contains an element ... | Revised to: "A non-AP MLD shall be able to discover an AP MLD and the capabilities and operational parameters of one or more APs affiliated with an AP MLD when it receives an ML Probe Response frame from an AP affiliated with the AP MLD or the AP corresponding to the transmitted BSSID in the same multiple BSSID set as at least one of the APs affiliated with the AP MLD; and the ML Probe Response frame carries a complete profile of the reported AP containing a Basic variant Multi-Link element." The proceeding paragraph have similar problem to improve. | **Revised**  Agree with the commenter. The statement was revised as suggested.  **Tgbe editor please implement changes as shown in doc 11-21/1086r0 tagged as 4740** |
| 4045 | Abhishek Patil | 253/29 | 35.3.4.3 | The spec does not define a new frame called ML Probe Response frame. The previous subclause explains what ML probe response is | Delete 'frame' and P and R need to be lower case . Update the text to "... carried in the ML probe response transmitted by...". | **Revised**  Agree with the commenter. The statement was revised as part of resolution for CID 4740. ML Probe Response was updated to ML probe response.  **Tgbe editor please implement changes as shown in doc 11-21/1086r0 tagged as 4740.** |
| 4741 | Chunyu Hu | 253/34 | 35.3.4.3 | The first sentence in the paragraph states "... receiving an element in some frames ..". Should be reworded to improve the structure/readability. | Revise the first sentence to "A non-AP MLD shall be able to discover an AP as an AP affiliated with an AP MLD when it receives a Beacon or Probe Response frame from the AP and the frame carries a Reduced Neighbor Report element." | **Revised**  Agree with the commenter. The statement is revised as suggested.  **Tgbe editor please implement changes as shown in doc 11-21/1086r0 tagged as 4741** |
| 4046 | Abhishek Patil | 253/53 | 35.3.4.3 | This implies the MLD MAC address field is always included when Basic variant ML IE is included in the NR IE. | Clarify that the MLD MAC Address field is carried in the Common Info field of the Basic variant Multi-Link element when the element is carried as a subelement in the Neighbor Report element. | **Revised**  Agree with the commenter. The statement was revised to clarify that the MLD MAC Address field is carried in the Common Info field of the Basic Multi-Link element.  **Tgbe editor please implement changes as shown in doc 11-21/1086r0 tagged as 4046** |

***TGbe editor: Please note Baseline is 11be D1.2***

***TGbe editor: Please update the subclause as shown below***

**35.3.4.3 Non-AP MLD Behavior (#6687)**

…

A non-AP MLD shall be able to discover an AP MLD and the capabilities and operational parameters of one or more APs affiliated with an AP MLD when its affiliated STA receives an ML probe response from an AP affiliated with the AP MLD or the AP corresponding to the transmitted BSSID in the same multiple BSSID set as at least one of the APs affiliated with the AP MLD and the ML probe response carries a Basic Multi-Link element with a complete profile of the reported AP (#4740).

A non-AP MLD shall be able to discover an AP (reported AP) as an AP affiliated with an AP MLD when its affiliated STA receives a Beacon or Probe Response frame transmitted by an AP (reporting AP) and the frame carries a Reduced Neighbor Report element that includes the MLD Parameters subfield in the TBTT Information field corresponding to the reported AP (#4741). A non-AP MLD shall be able to infer the relationship between the reported AP and the reporting AP by decoding the MLD ID subfield of the MLD Parameters subfield in the Reduced Neighbor Report element and following the rules described in 35.3.4.1 (AP behavior).

…

A non-AP MLD shall be able to discover an AP MLD when it receives a Neighbor Report element carried in a Management frame. If the Basic Multi-Link element is present in the Neighbor Report element for a reported AP, then the reported AP is affiliated with an AP MLD. The non-AP MLD shall be able to obtain, based on the contents of the Common Info field of the Basic Multi-Link element, the MLD information for the AP MLD with which the reported AP is affiliated. A non-AP MLD may use the information it receives from a Neighbor Report element to make a decision on performing multi-link setup (see 35.3.5 (Multi-link (re)setup)) or ML transition. When the Neighbor Report element includes a Basic Multi-Link subelement, a non-AP MLD shall be able to determine that two or more APs reported in different Neighbor Report elements are affiliated with the same AP MLD if the values carried in MLD MAC address field of the Common Info field of the Basic Multi-Link element of the reported APs are the same (#4046).