IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| LB 275 Resolution for CIDs assigned to Abhi – Part 2 | | | | |
| Date: August 22, 2023 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Abhishek Patil | Qualcomm Inc. |  |  | appatil@qti.qualcomm.com |
| Gaurang Naik |  |  |  |
| George Cherian |  |  |  |
| Alfred Asterjadhi |  |  |  |
| Duncan Ho |  |  |  |
| Yanjun Sun |  |  |  |
| Abdel Karim |  |  |  |

Abstract

This submission proposes resolutions for following CIDs received for TGbe LB275:

19745 19746 19368 19747 19748 19751 19026 20010 19753 19759

**Revisions:**

* Rev 0: Initial version of the document.
* Rev 1: incorporated suggestions from Edward to point to proposed changes within the resolution column.
* Rev 2: Updated resolution for CID 19753 after offline discussions with Ming
  + CID 19368 is still deferred.

***TGbe editor: Baseline for this document is 11be D4.0***

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.

***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** | **Category** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 19745 | Abhishek Patil | T | 9.4.2.312.1 | 244.08 | The term 'defined' does not provide any value | Delete 'defined' from the sentence. | Accepted |
| 19746 | Abhishek Patil | T | 9.4.2.312.2.3 | 246.41 | Move the contents of paragraphs starting 41, 58 & 62 to the presence indicators section (9.4.2.312.2.2). Also include FT Action frame to the list of frames that do not include these subfields. See resolution for CID 17616 in 11-23/743r2 | As in comment | Revised  Agree with the comment. The resolution shows the changes proposed by the comment.  TGbe editor, please make changes as shown in 11-23/1396r2 tagged as 19746 |
| 19368 | Brian Hart | T | 9.4.2.312.2.3 | 246.65 | "except for the Authentication frame" expresses that the behavior for an Authentication frame does not follow the earlier rule, but it leaves unspecified what rule does apply for the Authentication frame (this field is not present / optionally present / its presence behavior is defined in section xxx)? Also, offline discussiosn suggests that authentication should be bound to the same link as assoc etc, so maybe this authentication exception should be omitted? | Clarify the requirements for the Link ID Info subfield in the Auth frame, taking into account that Auth and Assoc should happen on the same link. Clarify the requirements for the SS Parameters Change Count subfield in the Auth frame. | Revised  Agree with the comment. The resolution is same as that for CID 19746. Resolution for CIDs 19767 and 19057 adds a requirement that Authentication frame must be transmitted on the same link as (Re)Association frame exchange (see 11-23/1381)  TGbe editor, please make changes as shown in 11-23/1396r2 tagged as 19746 |
| 19747 | Abhishek Patil | T | 9.4.2.312.2.3 | 251.41 | The contents of 9.4.2.312.2.3 are more about the field itself not about whether the field is present or not. The paragraph starting line 12 is about presence of the field and should be moved to the subclause on presence indication. | Move the contents of the paragraph starting line 12 to the section on presence indicator (9.4.2.312.2.2). | Revised  Agree with the comment. The proposed change deletes the cited sentence (P251L12) and adds a new sentence to the subclause on presence indicators.  TGbe editor please delete the single sentence paragraph on P251L12 and please add the following sentence to the end of the paragraph on MLD Capabilities And Operation Present subfield (P245L48): “The MLD Capabilities And Operations Present subfield is set to 1 when the Basic Multi-Link element is carried in Beacon, Probe Response, (Re)Association Request, and (Re)Association Response frames.”  Incorporate the changes as shown in CID 19747 in 23/1396r2. |
| 19748 | Abhishek Patil | T | 9.4.2.312.2.3 | 252.22 | what is the significance of EHT? EHT is the first generation to define MLO and the concept of MLD. Therefore, a non-AP MLD will have at least one EHT non-AP STA affiliated with it. | Delete 'EHT'. | Accepted |
| 19751 | Abhishek Patil | T | 9.4.2.312.2.3 | 253.54 | The bit size indication (shown at the bottom of the figure) does not match with the bit assignment (shown at the top of the figure). | Fix the bit size for Recommended Max Simultaneous Links to 4 bits | Accepted |
| 19026 | Gaurang Naik | T | 9.4.2.312.2.3 | 253.56 | The number of bits for "Recommended Max Simultaneous Links" should be 4. | As in comment | Accepted |
| 20010 | Binita Gupta | T | 9.4.2.312.2.3 | 253.58 | The ï»¿Recommended Max Simultaneous Links field is 4 bits (B1 - B4). Change the bits allocated below the field to 4. | Fix as per comment. | Accepted |
| 19753 | Abhishek Patil | T | 9.4.2.312.2.3 | 255.62 | A (Re)Association Response frame always carries complete profile. Delete "carries a complete profile and". Also, the conditions when the field will be set to 0 are clearly stated. Therefore the first 'otherwise' clause can be deleted. | As in comment | Revised  Agree with the comment. There are redundant rules stated in this paragraph. The proposed change simplifies the text while removing the redundancies and keeping the technical meaning of the paragraph.  TGbe editor, please make changes as shown in 11-23/1396r2 tagged as 19753 |
| 19759 | Abhishek Patil | T | 35.3.3.1 | 491.25 | Add FT Action frames to the list | Add "in a FT Action frame, " after "Authentication frame, " | Accepted |

**9.4.2.312.2.2 Presence Bitmap subfield of the Multi-Link Control field in a Basic Multi-Link element**[19746]

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

The Link ID Info Present subfield is set to 1 if the Link ID Info subfield is present in the Common Info field. Otherwise, the Link ID Info Present subfield is set to 0.

The BSS Parameters Change Count Present subfield is set to 1 if the BSS Parameters Change Count subfield is present in the Common Info field. Otherwise, the BSS Parameters Change Count Present subfield is set to 0.

Present subfield and the BSS Parameters Change Count Present areset to 0 in a transmitted affiliated with a non-AP MLD Present subfield Present set to 1 affiliated with AP MLDwhen the element is carried in an or an FT Action frame (see 9.6.8 (FT Action frame details))

**9.4.2.312.2.3 Common Info field of the Basic Multi-Link element**[19746]

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

The format of the Link ID Info subfield is defined in 9.4.1.75 (Link ID Info field). The Link ID subfield of the Link ID Info field indicates the link identifier of the AP that is affiliated with the AP MLD which is described in the Basic Multi-Link element and satisfies one of the following:

—It is the AP that transmitted the Basic Multi-Link element.

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

The BSS Parameters Change Count subfield in the Common Info field carries an unsigned integer, initialized to 0. The value carried in the subfield is incremented by 1 when a critical update (as defined in 11.2.3.15 (TIM Broadcast) and 35.3.10 (BSS parameter critical update procedure)) occurs to the BSS parameters of the AP that is affiliated with an AP MLD which is described in the Basic Multi-Link element and satisfies one of the following:

—It is the AP that transmitted the Basic Multi-Link element.

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

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

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

[19753]The BSS Parameters Change Count Present subfield indicates the presence of the BSS Parameters Change Count subfield in the STA Info field. It is set to 1 if the BSS Parameters Change Count subfield is present in the STA Info field. Otherwise, it is set to 0. A non-AP STA sets this subfield to 0 in the Basic Multi-Link element that it transmits. An AP sets this subfield to 1 in the Basic Multi-Link element carried in a (Re)Association Response frame and sets it to 0 in other frames.