IEEE P802.11
Wireless LANs

|  |
| --- |
| LB275 CR for CIDs in AF, 11.2.3 and 35.3.12.6 |
| Date: 2023-09-05 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Ming Gan | HuaweiHuawei |  |  | ming.gan@huawei.com |
| Jason Yuchen Guo |  |  |  |
| Yunbo Li | Huawei |  |  |  |
| Guogang Huang | Huawei |  |  |  |
| Zhi Mao | Huawei |  |  |  |
| Lan Peng | Huawei |  |  |  |
| Zhenguo Du | Huawei |  |  |  |
| Steven Qi Wang | Huawei |  |  |  |
| Yue Zhao | Huawei |  |  |  |
| Ying Li | Huawei |  |  |  |
| Maolin Zhang | Huawei |  |  |  |

Abstract

This submission proposes resolutions of comments received from TGbe comment collection LB275 based on TGbe D4.0.

19803 19817 19227 19228 19276 19277 (6 CIDs)

Revisions:

* Rev 0: Initial version of the document.
1. **Introduction**

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. The introduction and the explanation of the proposed changes are 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 802.11be 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** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 19803 | AF.6 | 1009.35 | Incorrect reference - This should point to 35.3.11. Same applies at other locations in this paragraph. Please fix all references. | As in comment | Revised-Agree with the comment. Apply the changes marked as #19803 in this document. |
| 19817 | AF.13.4 | 1025.49 | Update figure AF-46 link names and illustrate which links are configured as NSTR and STR. This will make the figure easier to follow the text. | Add "NSTR" for Non-AP MLD Links 1 and 2 link pair, Links 1 and 3 link pair. Add "STR" for links link 2 and 3 link pair. | Rejected-It would be more complex to add “STR” or “NSTR” to the figure. The current figure is aligned with other figures, like Figure AF-44. Note that the text corresponding to the figure is clear. |
| 19227 | 11.2.3.6 | 364.34 | The addition of the "For non-MLO" restriction raises the question of the behavior under MLO. The text in the referenced clause 11.2.3.10, whose name and content have been updated to reflect MLD-related aging, does not make this clear either. | Add reference to clause 35.3.12.6 that contains the parallel requirement that AP MLD may delete buffered BUs. | Revised-Agree with the comment. Apply the changes marked as #19227 in this document. |
| 19228 | 11.2.3.7 | 364.48 | The addition of the "For non-MLO" restriction raises the question of the behavior under MLO. | Add reference to clause 35.3.12.6 that contains requirement for non-AP STAs in PS mode waking up for beacon frames | Revised-Agree with the comment. Apply the changes marked as #19228 in this document. |
| 19276 | 35.3.12.6 | 545.08 | The sentence effectively says the value of the listen interval field is requested at the MLD level. It is not clear in what way this value is "requested". Instead, the value represents a request from the non-AP MLD at the MLD level. | Rephrase as "During ML (re)setup, the value carried in the Listen Interval field in the (Re)Association Request frame sent by a non-AP STA affiliated with a non-AP MLD to an AP affiliated with an AP MLD represents a request by the non-AP MLD at the MLD level. | Accepted- |
| 19277 | 35.3.12.6 | 545.20 | The phrase "the implementation dependent reasons" suggests that those reasons will be completely enumerated, rather than having some examples provided | Rephrase as "The AP MLD may delete buffered BUs for implementation dependent reasons..." | Accepted- |

**Discussion:** None.

***TGbe Editor: please modify the following paragraphs***

**AF.6 Example of critical update operation**

Figure AF-25 (An example of critical update operation) illustrates two APs affiliated with the same AP MLD. AP1 and AP2 affiliated with the AP MLD operate on Link 1 and Link 2, respectively. The figure shows the values carried in the Critical Update Flag subfield, the BSS Parameters Change Count subfield, and the All Updates Included subfield corresponding to AP1 in the Beacon frames transmitted by AP2 when critical updates occur in AP1’s BSS. In the illustration, the value of the BSS Parameters Change Count subfield for AP1 is equal to 5 in Beacon 21 and the Critical Update Flag and All Updates Included (corresponding to AP1) subfields are set to 0. First, a critical update that does not correspond to an element listed in 35.3.11 (Multi-link procedures for (extended) channel switching and channel quieting) (#19803) is announced by AP1 in Beacon 12, which causes the BSS Parameters Change Count subfield (for AP1) to increment by one (to 6) in Beacon 22. Also, in Beacon 22 AP2 sets the Critical Update Flag subfield to 1. The All Updates Included subfield (corresponding to AP1) is set to 0 since the element corresponding to the latest critical update is not included in Beacon 22. Next, in Beacon 13, AP1 includes a Quiet element to advertise a quiet interval, which results in the BSS Parameters Change Count subfield (for AP1) to be incremented by one (to 7). Since this critical update corresponds to an element listed in 35.3.11 (Multi-link procedures for (extended) channel switching and channel quieting) (#19803), AP2 includes the Quiet element in the per-STA profile corresponding to AP1 in Beacon 23 and sets the Critical Update Flag and All Updates Included (corresponding to AP1) subfields to 1 and 1, respectively. The Critical Update Flag subfield is set to 1 until the next DTIM beacon of AP2 (i.e., until Beacon 25). The All Updates Included subfield corresponding to AP1 is set to 1 in Beacons 24, 25, and 26 since these Beacon frames include the element corresponding to the last critical update. Finally, a critical update, not corresponding to elements listed in 35.3.11 (Multi-link procedures for (extended) channel switching and channel quieting) (#19803) is announced by AP1 in Beacon\_17, which causes AP1’s BSS Parameters Change Count subfield to increment by one (to 8). Although the Quiet element is still included in the per-STA profile corresponding to AP1 in Beacons 27 and 28, the element corresponding to the latest critical update is not included in these Beacon frames. Consequently, the All Updates Included subfield corresponding to AP1 in Beacons 27 and 28 is set to 0.

**11.2.3.6 AP operation**

Change item k) in the second paragraph as follows:

k)For non-MLO, an An AP may delete buffered BUs for implementation dependent reasons (subject to 11.2.3.10 (AP and AP MLD aging function)), including the use of an aging function and availability of buffers. The AP may base the aging function on the listen interval indicated by the STA in its (Re)Association Request frame or the WNM sleep interval specified by the non-AP STA in the WNM Sleep Mode Request frame. In addition, the S1G AP may base the aging function on the listen interval indicated by the AP in the (Re)Association Response frame. For MLO, an AP follows the rules defined in 35.3.12.6 (Operation for MLD listen interval). (#19227)

**11.2.3.7 Receive operation for STAs in PS mode**

Change item a) in the second paragraph as follows:

A STA in PS mode shall operate as follows to receive a BU from the AP:

a)For non-MLO, a A STA with dot11NonTIMModeActivated equal to false shall wake up early enough to be able to receive the first Beacon frame scheduled for transmission at the time corresponding to the last TBTT or TSBTT for which the STA was awake plus the time interval indicated by the ListenInterval parameter of the MLME-ASSOCIATE.request or MLME REASSOCIATE.request primitive. A STA with dot11NonTIMModeActivated equal to true is not required to wake up to receive a Beacon frame and shall transmit at least one PS-Poll or trigger frame that is individually addressed to the associated AP every listen interval starting from the last known transition of the S1G STA in non-TIM mode in the doze state unless it follows the TWT or NDP Paging procedure. For MLO, a STA follows the rules defined in 35.3.12.6 (Operation for MLD listen interval). (#19228)