IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SA Ballot CR for 35.1 | | | | |
| Date: 2024-02-26 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Ming Gan | Huawei  Huawei |  |  | 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 SA Ballot based on TGbe D5.0.

22161 22315 22316 22317 22318 22341 22354 22385 (8 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** |
| 22161 | 35.3.1 | 495.20 | While an EHT AP is required to have MLO enabled a non-AP EHT STA does not require MLO to be enabled. Since single operation for non-AP MLD is allowed, make MLO mandatory for all EHT STAs. | As in comment. | Rejected-  The commenter failed to identify the technical issue. Single operation for non-AP MLD is not equal to making MLO mandatory at the non-AP MLD side. The former one is because of the ML reconfiguration operation, not the capability while the latter one is kind of capability requirement. Some low cost clients, like IoT device, have such non-MLO capability requirements. |
| 22315 | 35.3.1 | 498.51 | [Liuming Lu] The description is confusing. If the AP affiliated with the AP MLD operating on the link corresponds to the nontransmitted BSSID in a multiple BSSID set, the AP cannot send the Probe Response frame | Please clarify the case that the frame is a Probe Response frame from an AP affiliated with the AP MLD operating on the link and the AP corresponds to the nontransmitted BSSID in a multiple BSSID set | Rejected-  The commenter failed to identify the technical issue. According to the baseline in REVme D4.0, the AP corresponding to a nontransmitted BSSID in a multiple BSSID set is not allowed to transmit Beacon and Probe Response frames. |
| 22316 | 35.3.1 | 497.32 | [Liuming Lu] The description is confusing. | Suggest to clarify which capabilities and operating parameters are MLD-level. | Rejected-  The page number should be 495.35. This sentence is a general description. MLD level capabilities have already been specified in subclause 35.3 and there is no need to clarify them one by one here. |
| 22318 | 35.3.1 | 497.15 | [Liuming Lu] Multi-link reconfiguration is missing | Suggest to change "MLO enables a non-AP MLD to discover, authenticate, associate, and set up one or more links with an AP MLD" to "MLO enables a non-AP MLD to discover, authenticate, associate, set up and reconfigure one or more links with an AP MLD" | Revised-  The page number should be 495.05. Agree with the comment in principle. Besides the Multi-link reconfiguration, lots of mechanisms are missing, such TID-to-Link mapping. Apply the changes marked as #22318 in this document. |
| 22317 | 35.3.1 | 497.16 | [Liuming Lu] The description is confusing. | Suggest to change "Each link" to "Each setup link", and clarify the desciption of "channel access and frame exchanges" as the capability of frame exchanges for a disabled link is limited. | Revised-  The page number should be 495.06.  Apply the changes marked as #22318 in this document.  Note to the commenter: The corresponding part has been changed based on the CID 22318. There is no further change for this CID. |
| 22341 | 35.3.1 | 497.20 | [Thomas Derham] Is MLO operation possible without EHT being enabled? There seems no text that explicitly prohibits it, except by implication of the MLO subclause being within the EHT MAC clause. While an EHT AP is required to have MLO enabled, it does not specify whether a non-EHT AP could have MLO enabled. | Since the assumption seems to be that MLO is currently only defined with EHT MAC, add explicit text to say so. | Revised-  The page number should be 495.20. Agree with the comment that MLO is currently only defined with EHT MAC.  Apply the changes marked as #22341 in this document. |
| 22354 | 35.3.1 | 498.13 | [Henry Ptasinski] The requirement for the STA to use the MLD's MAC address when dot11MultiLinkActivated is false means that, multiple STAs will be using the same MAC address when that is more than one STA affiliated with an MLD that have dot11MultiLinkActivated set to false | Add a requirement that only one STA shall use the MLDs MAC address at a time. If more than one STA has dot11MultiLinkActivated set to false, all other STAs shall use a different MAC address. | Revised-  A requirement is added, but other STAs can’t be used in this case.  Apply the changes marked as #22354 in this document. |
| 22385 | 35.3.1 | 495.29 | Please clarify whether there is a non-MLD EHT mobile AP | As in the comment | Revised-  Given that the non-MLD EHT STA is for low cost device and the definition of the mobile AP MLD, there is no non-MLD EHT mobile AP. A note is added for clarification.  Apply the changes marked as #22385 in this document. |

**Discussion:** None.

***TGbe Editor: please add the following paragraph***

35.3 Multi-link operation (MLO)

**35.3.1 General**

(#22318)MLO enables operations such as, but not limited to, discovery, authentication, multi-link setup, and frame exchanges, between two MLDs as described in 35.3 (Multi-link operation (MLO)). (#22341) Each STA affiliated with an MLD shall be an EHT STA.

An EHT AP shall set dot11MultiLinkActivated to true and shall be affiliated with an AP MLD. An AP MLD and all of its affiliated AP(s) shall follow the rules defined in 35.3 (Multi-link operation (MLO)).NOTE 1—There is no mobile EHT AP with dot11MultiLinkActivated equal to false (#22385).

…

The MAC address of a non-AP EHT STA with dot11MultiLinkActivated equal to false shall be set to the MLD MAC address of the non-AP MLD that the non-AP EHT STA is affiliated with when the non-AP EHT STA has dot11MultiLinkActivated equal to true, and vice versa. (#22354)In this case, the non-AP MLD and other affiliated STAs do not exist.