IEEE P802.11
Wireless LANs

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| LB275 CR for CIDs in 35.3.1 |
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Abstract

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

19201 19197 19199 19322 19348 19198 19200 (7 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.***

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 19201 | 35.3.1 | 489.21 | It is a little odd to say that the AP is always forced to set the MIB to True even when it is the only AP left in the AP MLD (e.g. after ML reconfig). | when there is only one AP left, allow it to either operate as a legacy AP or add a rule to set the same MAC address as that AP MLD MAC address in such a scenario. | Rejected-The dot11MultiLinkActivated MIB variable indicates whether the multi-link feature is currentlyoperational or not. For the AP MLD, the multi-link feature is stilloperational even where there is one affiliated AP left after ML reconfiguration. |
| 19197 | 35.3.1 | 489.32 | This sentence leaves ambiguity. It states that a non-AP MLD can have a maximum of one TDLS direct link set up with a second device. However, it does not clarify whether the non-AP MLD can establish another TDLS direct link with a third device (be on the same link or on a different link). | Please clarify the sentence as explained in the comment. | Rejected-The comment failed to identify the technical issue. It is allowed that the non-AP MLD can establish another TDLS direct link with a third device, but additional clarification is not needed. |
| 19199 | 35.3.1 | 489.63 | Please clarify that this is true when the complete profile is included. | As in the comment. | Revised-Agree with the comment in principle. Apply the changes marked as #19199 in this document. |
| 19322 | 35.3.1 | 490.10 | The use of the MLD MAC address as the STA MAC address should be conditional on BSS transition being implemented, and the STA remaining in the ESS. And the MLD MAC address can only be used by one STA | Delete the paragraph. Add the following to 35.3.2:The MLD MAC address of an MLD shall only be used as the MAC address of at most one STA at a time. If associated to an AP, the STA using the MLD MAC address shall disassociate before another STA begins using the same MAC address..When dot11BSSTransitionActivated is true, a non-AP EHT STA with dot11MultiLinkActivated set to true that transitions within the ESS from an MLD AP to a non-MLD AP shall set dot11MultiLinkActivated to false. After the transition, the non-AP STA should use 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 set to true, if that MAC address is not already in use by another non-AP EHT STA. | Rejected-The first part raised by the comment is redundant since there is only one MLD MAC address and it is straightforward to have only one STA to use this MLD MAC address. For the second part, the non-AP EHT STA always sets dot11BSSTransitionActivated to true, since the non-AP HE STA already has this “shall” requirement. Moreover, BSS transition is a future behavior and can't be predicted. These values should be set for the association, before a BSS transition. Otherwise it is too late if a BSS transition happens in the future.  |
| 19348 | 35.3.1 | 490.10 | This requirement is fuzzier since it looks since dot11MultiLinkActivated cannot be true and false at the same time; so in some sense the MAC address of a non-AP EHT STA is read at a different time that the MLD MAC address of the non-AP MLD. | Tighten the language: either append "and vice versa" or append the dual sentence "The MLD MAC address of a non-AP MLD with affiliated non-AP EHT STAs that have dot11MultiLinkActivated set to true shall be set to the MAC address of one of the affiliated non-AP EHT STAs with dot11MultiLinkActivated set to false." | Revised-Agree with the comment in principle. Apply the changes marked as #19348 in this document. |
| 19198 | 35.3.1 | 490.11 | To avoid misunderstanding with the STA MAC address and the MLD MAC address, please clarify that when the MIB variable is false, there is either only one STA remaining in that MLD (after AP removal) or the association is the legacy association. | As in the comment. | Revised-Agree with the comment in principle. A note is added. Apply the changes marked as #19348 in this document. |
| 19200 | 35.3.1 | 490.11 | When two STAs once affiliated with the same MLD set the MIB variable to false (and hence setting the MAC addresses to the MLD MAC address according to this rule), they cannot attempt to associate with two different legacy APs (e.g. 2.4 and 5). Please clarify this point. | As in the comment. | Rejected-The comment failed to identify the technical issue. The case that the comment raised is disallowed in the case that there is BSS transition from a lagacy AP to an AP MLD later. Please refer to the approved resolution of the CID 16371 in 11-23/627r7. |

**Discussion:** None.

**35.3 Multi-link operation**

**35.3.1 General**

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

NOTE 4—An AP affiliated with an AP MLD provides TSF offset in the complete profile of a reported AP (see 9.4.2.312.2.4 (Link Info field of the Basic Multi-Link element)). A non-AP MLD can determine the TSF information of all the APs affiliated with an AP MLD when it receives a frame carrying TSF of any AP affiliated with that AP MLD (also see 35.3.12.2 (Basic BSS operation)) based on the received TSF offset in the complete profile of a reported AP (#19199) and use that information to maintain TSF timer for each non-AP STA per 11.1.3 (Maintaining synchronization).

NOTE 5—All APs affiliated with an NSTR mobile AP MLD have the same TSF timer (see 35.3.19 (NSTR mobile AP MLD operation)).

An MLD shall operate with one or more affiliated STAs.

NOTE 6—An AP MLD might operate with a single affiliated AP, for example, after removing some of its affiliated APs. Similarly, a non-AP MLD might operate with a single affiliated non-AP STA, for example, after the associated AP MLD has removed some of its affiliated APs. See 35.3.6.3 (Removing affiliated APs).

The MAC address of a non-AP EHT STA with dot11MultiLinkActivated equal (#ED) 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 (#ED) to true, and vice versa(#19348).

NOTE 7—The (Re)Association Request frame sent by a non-AP EHT STA with dot11MultiLinkActivated equal to false does not include the Basic Multi-Link element (see Table 9-62 (Association Request frame body) and Table 9-64 (Reassociation Request frame body)). After the association, the non-AP EHT STA with dot11MultiLinkActivated equal to false does not support multi-link operation described in 35.3 (Multi-link operation). (#19198)

All APs affiliated with the same AP MLD are members of the same ESS and are connected to the same DS. All APs affiliated with the same AP MLD shall advertise the same SSID.

A non-AP STA affiliated with a non-AP MLD shall not support the TIM Broadcast procedure defined in 11.2.3.14 (TIM Broadcast).