IEEE P802.11
Wireless LANs

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| 11be D2.0 CR for 35.3.5.3  |
| Date: 2022-07-21 |
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Abstract

This submission proposes resolutions for the following CIDs:

10234, 11739, 11188, 11189, 11608, 11738, 13275

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 D2.0 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe D2.0 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.***

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| **CID** | **Commenter** | **Clause** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 10234 | John Wullert | 35.3.5.3 | 423.51 | As currently worded, the sentence says a STA affililiated with an MLD can send a frame on any of the setup links. This is not the case - while any of the affiliated STAs can be used to send the frame, once the STA is selected it can only send on its associated link. | Rephrase as "For an MLD to tear down the setup links between the MLD and an associated peer MLD, one of the STAs affiliated with the MLD shall send a Disassociation frame to the STA affiliated with the peer MLD subject to additional constraints (see 35.3.7 (Link management)), and the MLD and the peer MLD shall follow the MLD disassociation procedure as described in 11.3 (Authentication and association).". | Revised – We revise toward the suggestion of the commenter to clarify this confusion. TGbe editor to make the changes shown in 11-22/1174r0 under all headings that include CID 10234 |
| 11739 | Gaurav Patwardhan | 35.3.5.3 | 423.54 | Replace "any setup links" with "any setup link". | as in comment | Revised – We revise toward the suggestion of the commenter to clarify this confusion. TGbe editor to make the changes shown in 11-22/1174r0 under all headings that include CID 10234 |
| 11188 | Joseph Levy | 35.3.5.3 | 423.52 | The peer to peer link in MLO is between MLDs, the affiliated STAs while used to provide lower MAC and PHY service in a 'link' or channel do not act independently of upper MAC and can only send MSDUs as an MLD to a peer MLD. Therefore the statement that ".... one of the STAs affiliated with the MLD shall send a Disassociation frame to the STA affiliated with the peer MLD..." is confusing and incorrect. MLD tear down is simply MLD disassociation. It would be better to follow the text style in 11.3. Four procedures that need to be described 1) how a non-AP MLD initiates disassociation, 2) how a AP MLD initiates disassociation, 3) the procedure followed by a non-AP MLD when it receives a Disassociation frame, and 4) the procedure followed by an AP MLD when it receives a Disassociation frame. | Replace: "For an MLD to tear down the setup links between the MLD and an associated peer MLD, one of the STAs affiliated with the MLD shall send a Disassociation frame to the STA affiliated with the peer MLD on any setup links subject to additional constraints (see35.3.7 (Link management) ), and the MLD and the peer MLD shall follow the MLD disassociation procedure as described in 11.3 (STAauthenticationAuthentication and association).With: "Multi-link tear down procedure uses the STA disassociation procedure described in 11.3. A non-AP MLD shall follow the initiation and disassociation receipt procedures provided for Non-AP and non-PCP STA in 11.3.5.6 and 11.3.5.7, respectively, with the non-AP MLD performing the action of the STA and the AP MLD performing the actions of the AP. An AP MLD shall follow the initiation and disassociation receipt procedures provided for AP and PCP 11.3.5.8 and 11.3.5.9, respectively, with the non-AP MLD performing the action of the STA and the AP MLD performing the actions of the AP.. | Revised – We revise the sentence to basically say MLD send disassociation frame through the affiliated STA.TGbe editor to make the changes shown in 11-22/1174r0 under all headings that include CID 11188 |
| 11189 | Joseph Levy | 35.3.5.3 | 423.59 | After the completion of the disassociation procedure multi-link teardown has been accomplished and the state of the non-AP MLD is unassociated (State 2). A non-AP STA affiliated with the non-AP MLD does not have a state and never has a state, as it is not capable of having its own MAC SAP to MAC SAP association. | Replace: "After multi-link teardown, all the non-AP STAs affiliated with the non-AP MLD and the non-AP MLD are in the unassociated state (see 11.3.2 (State variables))."With: "After the completion of the disassociation procedure, multi-link teardown has been accomplished and the state of the non-AP MLD is unassociated (State 2)." | Revised – Indeed, MLO has state to align with the definition provided in the baseline. The sentence is added because we add the corresponding sentence in the setup to say affiliated STA follows the associated state as the non-AP MLD, so baseline texts can be used in each setup link. We revise the sentence to follow similar description, so it is clear that baseline texts in each link does not apply anymore.TGbe editor to make the changes shown in 11-22/1174r0 under all headings that include CID 11189 |
| 11608 | Lei Wang | 35.3.5.3 | 423.51 | The term "peer MLD" has been used many times in the spec. However, searched entire spec, no clear definiton for it, although multiple places imply it means "associated MLD" where association has been established between a non-AP MLD and an AP MLD, understandign that with MLO, the association is at MLD level. | Either clearly define the term "peer MLD" or change all the occurrences of "peer MLD" to "associated MLD" plus necessary editorial changes in the context to make the text read well, except for direction link related text. | Revised – “Peer STA” is used in REVme D1.3 838 times without specific definition of “Peer STA”. It is reasonable to believe that Peer MLD can be used for similar purpose.However, we agree that usage of “associated peer MLD” may be unnecessary. We simply use associated MLD in this context, and we do not change peer MLD in other contexts.TGbe editor to make the changes shown in 11-22/1174r0 under all headings that include CID 11608 |
| 11738 | Gaurav Patwardhan | 35.3.5.3 | 423.51 | Replace "the setup links" by "all the setup links" because partial disabling is done via Multi-Link Reconfiguration (Subclause 35.3.6) | as in comment | Accepted -  |
| 13275 | Binita Gupta | 35.3.5.3 | 423.51 | The ML tear down is for tearing down of all the setup links between MLDs, not for tearing down of a partial set of links. Modify text to indicate this. | Modify to "For an MLD to tear down all the setup links between the MLD and an associated peer MLD, ..." | Revised – We revise the sentence by adding “all”.TGbe editor to make the changes shown in 11-22/1174r0 under all headings that include CID 11738 |

**Discussion:**

**none**

**Proposed change:**

***TGbe editor: Change 35.3.5.3 Multi-link tear down procedure as follows (track change on):***

**35.3.5.3 Multi-link tear down procedure**

An MLD tears(#11188) down all(#11738) the setup links with(#11188) an associated MLD(#11608) by sending a Disassociation frame through one of the STAs affiliated with the MLD(#11188), on a setup link, (#10234) to the STA affiliated with the associated(#11608) MLD (#10234)subject to additional constraints (see 35.3.7 (Link management)). The(#11188) MLD and the associated(#11608) MLD shall follow the MLD disassociation procedure as described in 11.3 (STA authenticationAuthentication and association).

After multi-link teardown, all the non-AP STAs affiliated with the non-AP MLD are in the same unassociated state as the non-AP MLD (see 11.3.2 (State variables)).(#11189)