IEEE P802.11
Wireless LANs

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| SA ballot: CR for 35.3.21.2 TDLS direct link over a single link |
| Date: 2024-20-02 |
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Abstract

This submission proposes CR for 5 CIDs:

22106 22107 22108 22109 22351

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Revised based on received comments.

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.

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

| **CID** | **Commenter** | **Clause**  | **Pg/Ln** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- | --- |
| 22106 | Srinivas Kandala | 35.3.21.2 | 585.52 | Please also include the case for TDLS Discovery Response frame. | as in comment | RejectedThe receiver doesn’t need to respond with any frame regardless of whether the received TDLS Discovery Response frame is valid or not.The intent of this paragraph is to emphasize that the receiver shall not respond an invalid request.  |
| 22107 | Srinivas Kandala | 35.3.21.2 | 585.46 | Clarify here that the "non-AP MLD" here applies to both the TDLS initiator non-AP MLD and the TDLS responder non-AP MLD, i.e. both will use this BSSID. | as in comment | RejectedConsidering that the TDLS peer may be a non-MLD non-AP STA, it’s better to keep the current text. |
| 22108 | Srinivas Kandala | 35.3.21.2 | 585.40 | The condition depicted in this paragraph should not have happened in the first place since the TDLS Discovery Request frame is transmitted through the AP MLD and the AP MLD won't forward a frame to any non-AP MLD that is not associated with that AP MLD. Initiator non-AP MLD should set the MLD MAC Address appropriately. | Please revise this paragraph | RejectedThe condition may be happened. It is because the TDLS Discovery Request Action field is encapsulated in a Data frame and transmitted to a TDLS peer STA through the AP MLD. The AP MLD will not check the received TDLS Discovery Request frame.  |
| 22109 | Srinivas Kandala | 35.3.21.2 | 585.22 | The underlying assumption for sending multiple TDLS Discovery frames with different BSSID each time is that the initiating non-AP MLD is open to establishing the TDLS link on either of the multiple links that non-AP MLD is operating on. If the non-AP MLD has only a certain link over which it intends to establish the TDLS direct link, then the non-AP MLD shall send only a single TDLS discovery request frame whose BSSID in the LI will match the BSSID of the AP operating on that link. This fact needs to be clarified here. | as in comment | RevisedAgree in principle. This paragraph is revised to address this comment. **TGbe editor please implement changes as shown in doc 11-24/0357r2 tagged as 22109.** |
| 22351 | Alfred Asterjadhi | 35.3.21.2 | 586.58 | [Romain Guignard] The in-device coexistence was initially proposed to solve coexistence problem with P2P and BSS transmissions concurrently operating on EMLSR links. But it is not clear how the non-AP STA with TDLS transmission should set this in-device coexistence. | Please clarify. For example, add the following sentence in the section 35,3,21,2: "A non-AP STA affiliated with a non-AP MLD that operates TDLS direct link on one of the EMLSR links should transmit an EML Operating Mode Notification with the in-device coexistence activities field set to 1 to its associated AP MLD as defined in 35.3.17." | RejectedIn-device coexistence operation defined in 11be allows for this bit to be set for any use case including TDLS direct link. No additional specification changes are required.  |

**35.3.21.2 TDLS direct link over a single link**

*TGbe editor: Please make the following change on the fourth paragraph of 11be D5.0 P587**（#22109）*

A non-AP MLD that initiates a TDLS discovery might not know the AP (i.e., the BSSID) with whom the intended peer STA is associated with (see NOTE 1 below). Therefore, when a non-AP MLD initiates a TDLS discovery operation, it may need to transmit more than one TDLS Discovery Request frame with the BSSID field of the Link Identifier element set to a different BSSID in each attempt. In each instance, the attempted BSSID corresponds to a different AP that is affiliated with its associated AP MLD and is part of the ML setup with the AP MLD. Since the TDLS Discovery Response frame is received over the direct link, the initiating non-AP MLD shall be able to determine the BSSID(s) where the peer non-AP STA or non-AP MLD is reachable.

NOTE 1—Due to the nature of MLO, when a Data frame that is transmitted by a non-AP STA affiliated with a non-AP MLD and that is directed towards a peer TDLS STA (i.e., the DA field is set to the target’s MAC address) traverses an AP MLD, it can be relayed by the AP MLD (i.e., transmitted by an AP affiliated with the AP MLD) on a link where the target is reachable. Furthermore, when a frame that was transmitted by a non-AP STA affiliated with a non-AP MLD traverses an AP MLD, the AP MLD sets the SA field to the transmitting non-AP MLD’s MLD MAC address. Therefore, when a non-AP STA affiliated with a non-AP MLD receives a frame from its associated AP that is affiliated with the AP MLD with whom the non-AP MLD has performed ML setup, the non-AP MLD cannot determine the BSSID where the frame originated from or determine if the initiating non-AP STA is affiliated with a non-AP MLD or is a non-MLD non-AP STA.