IEEE P802.11  
Wireless LANs

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| Text for AP initiated EML Operating Mode Change | | | | |
| Date: 2022-09-15 | | | | |
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Abstract

**CID 12410:**

EML OMN procedure needs to consider mismatch between TID-to-Link mapping and EMLSR links. When a TID is mapped to a link which is not selected as EMLSR links and AP needs to transmit a data frame of that TID, AP needs to change EMLSR links with EML OMN procedure.

**LB266 comments addressing the same issue as CID 12410:**

CID 10156, 10157, 10158, 14077

**Changed TID-to-Link mapping may not match with EMLSR Links, when AP MLD changes TID-to-Link mapping (especially, in a group based manner)**

In document 22/1023r5, AP Link Disablement, TGbe discussed about broadcast TID-to-Link mapping method

**IEEE 802.11be needs to define AP initiated EML Operating Mode changing procedure**

## Issues

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| 12410 | Juseong moon | EML OMN procedure needs to consider mismatch between TID-to-Link mapping and EMLSR links. When a TID is mapped to a link which is not selected as EMLSR links and AP needs to transmit a data frame of that TID, AP needs to change EMLSR links with EML OMN procedure. | As in comment |
| 10156 | Julien Sevin | An AP MLD has not the possibility to propose different EMLSR links that the EMLSR links specified by the non-AP MLD in the EML Operating Mode Notification frame | Specify a procedure allowing an AP MLD to propose other EMLSR links that the EMLSR links specified by the non-AP MLD in the EML Operating Mode Notification frame |
| 10157 | Julien Sevin | An AP MLD has not the possibility to propose/initiate to a non-AP MLD to operate in EMLSR mode | Specify a procedure allowing an AP to transmit an EML Operating Mode Notification frame for proposing to a non-AP STA to initiate its EMLSR mode. |
| 10158 | Julien Sevin | An AP MLD has not the possibility to propose to a non-AP MLD to disabled the EMLSR mode | Specify a procedure allowing an AP to transmit an EML Operating Mode Notification frame for proposing to a non-AP STA to disable its EMLSR mode. |
| 14077 | Ming Gan | It is straight forward to allow AP to initiate and send an EML Operating Mode Notification frame | add the case that AP initiates and sends an EML Operating Mode Notification frame |

## Proposed Text

### Proposed Changes to IEEE 802.11be D2.1.1, subclause 35.3.17, Page 477, Line 55:

(**TGbe Editor to make the insert the following sentence**)

**35.3.17 Enhanced multi-link single radio operation**

…

When a non-AP MLD with dot11EHTEMLSROptionImplemented equal to true intends to disable the EMLSR mode, a STA affiliated with the non-AP MLD shall transmit an EML Operating Mode Notification frame with the EMLSR Mode subfield of the EML Control field of the frame set to 0 to an AP affiliated with an AP MLD with dot11EHTEMLSROptionImplemented equal to true. An AP affiliated with the AP MLD that received the EML Operating Mode Notification frame from the STA affiliated with the non-AP MLD should transmit an EML Operating Mode Notification frame to one of the STAs affiliated with the non-AP MLD within the timeout interval indicated in the Transition Timeout subfield in the EML Capabilities subfield of the Basic Multi-Link element starting at the end of the PPDU transmitted by the AP affiliated with the AP MLD as an acknowledgement to the EML Operating Mode Notification frame transmitted by the STA affiliated with the non-AP MLD. After the successful transmission of the EML Operating Mode Notification frame on one of the EMLSR links by the STA affiliated with the non-AP MLD, the non-AP MLD shall disable the EMLSR mode and the STAs on the other links of the EMLSR links shall transition to power save mode after the transition delay indicated in the Transition Timeout subfield in the EML Capabilities subfield of the Basic Multi-Link element or immediately after receiving an EML Operating Mode Notification frame from one of the APs operating on the EMLSR links and affiliated with the AP MLD. A STA on one of the other links of the EMLSR links shall not transmit a frame with the Power Management subfield set to 0 before receiving the EML Operating Mode Notification frame from the AP affiliated with the AP MLD or before the end of the timeout interval.

NOTE 1—Each of the STAs on the other links of the EMLSR links can transmit a frame with the Power Management subfield set to 1 and transition to power save mode immediately after successful transmission of the frame. (see 11.2.3.2 (Non-AP STA power management modes)).

When an AP MLD with dot11EHTEMLSROptionImplemented equal to true intends to enable or disable or change EMLSR mode and to change EMLSR links of an associated non-AP MLD with dot11EHTEMLSROptionImplemented equal to true, an AP affilitated with the AP MLD shall transmit an EML Operating Mode Notification frame with intended EML Control field to a non-AP STA affiliated with the non-AP MLD. The STA affiliated with the non-AP MLD that received the EML Operating Mode Notification Frame from the AP affiliated with AP MLD should transmit an EML Operating Mode Notification Frame to the AP affiliated with AP MLD. The EML Operating Mode Notification frame transmitted by STA can include intended EML Control field with changed information or not. After the successful transmission of the EML Operation Mode Notification Frame between the AP MLD and non-AP MLD, the AP MLD and the non-AP MLD shall use the EML Operating Mode included in EML Operating Mode Notification frame of the non-AP MLD.