IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| LB266 CR for CID 12427 | | | | |
| Date: 2022-08-08 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Yousi Lin | Huawei Technologies Co.,Ltd. | H3, Huawei Base, Bantian, Longgang, Shenzhen, Guangdong, China, 518129 |  | linyousi@huawei.com |
| Yunbo Li |  |  |  |
| Guogang Huang |  |  |  |
| Yuchen Guo |  |  |  |
| Ming Gan |  |  |  |

This submission proposes resolution for the following CID for TGbe LB266:

12427

Revisions:

* Rev 0: Initial version of the document
* Rev1: Some editorial changes

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.***

***TGbe editor: The baseline for this document is 11be D2.0.***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Pg/Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 12427 | 35.3.16.8.2 | 461.05 | Similar to NSTR STA MLD, EMLSR STA MLD also suffers from lost medium synchronization problem and also applies MediumSyncDelay after returning to EMLSR listening operation. AAR can also be applied to EMLSR operation. In case of EMLSR uplink transmission, the current AAR method of NSTR can be applied. In EMLSR downlink reception case, QoS Null with AAR control may be transmitted with BA. | As in comment | Revised  Agree in principle with the commenter.  **Instruction to the editor**, ***please make the following changes with the CID tag 12427(doc.: IEEE 802.11-22/1318r0 ).*** |

**Discussion:**

Similar to the non-AP MLD that operates on NSTR link pair(s), a non-AP MLD operating in EMLSR mode suffers from lost medium synchronization if it is not able to perform CCA during frame exchanges. Also, during listening operation, the STAs affliated with the non-AP MLD in EMLSR mode have very limited capability and cannot set the NAV correctly, hence the STA may consider that the channel is idle by mistake when doing untriggered uplink transmission, which may result in the interference with existing transmissions of other non-AP MLDs. AP assisted medium synchronization recovery procedure can also be applied to the non-AP MLD operating in EMLSR mode since it is a service provided by AP MLD to help the STA affiliated with a non-AP MLD that has lost medium synchronization to transmit a frame without causing the collision with the existing transmission.

**Proposed Text Change:**

**TGbe editor**: ***at P461 of IEEE P802.11be™/D2.0,*** ***please make the following changes in 35.3.16.8.3 AP assisted medium synchronization recovery procedure*** (CID 12427)

A STA affiliated with a non-AP MLD with dot11AAROptionImplemented that is equal to true and that belongs to an NSTR link pair or that is operating in the EMLSR mode shall transmit the AAR Control subfield in a frame that solicits an immediate response to its associated AP affiliated with an AP MLD if it has received a Basic Multi-Link element from the AP with the AAR Support subfield equal to 1 and an assisted STA that belongs to the NSTR link pair or that is affiliated with the non-AP MLD operating in the EMLSR mode needs assistance in transmitting frames to its associated AP in the other link.

The AAR Control subfield transmitted by the STA shall indicate the link identifier(s) of the other assisting AP(s) affiliated with the same AP MLD operating on the enabled link(s) by setting the corresponding bits to 1.

Each of the other assisting AP(s) affiliated with the AP MLD should schedule for a transmission a Trigger frame to the assisted STA that is associated with it and affiliated with the non-AP MLD to solicit an UL frame(s) after the AP affiliated with the same AP MLD successfully received the AAR Control subfield in a frame if it does not have frame exchanges already scheduled with another STA. If the non-AP MLD is operating in EMLSR mode, the Trigger frame sent by each of the assisting AP(s) affiliated with the AP MLD to the assisted STA that is associated with it and affiliated with the non-AP MLD shall be an initial control frame (see 35.3.17 (Enhanced multi-link single radio operation)).