IEEE P802.11
Wireless LANs

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| P2P Communication with EMLSR Peer in Triggered TXOP Sharing |
| Date: 2023-01-17 |
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Abstract

This submission proposes comment resolution for CID 12422 received in LB266 on TGbe D2.0.

## Related Comment

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| 12422 | Yongho Kim | Yes | 35.2.1.2.2 | 402.55 | When EMLSR STA MLD (or STA affiliated with EMLSR STA MLD) is recipient of P2P, EMLSR operating STA can not receive PPDU from non-AP STA without initial control frame. | Please define a procedure to communication with EMLSR operating STA in triggered TXOP sharing mode 2. | **Revised.** Agree in principle. In order for an EMLSR STA to participate in P2P communication, the EMLSR STA shall disable EMLSR mode operation at the setup of P2P and may enable EMLSR mode operation after the teardown of P2P. **TGbe editor:** Apply the changes tagged with #12422 in this document.  |

## Discussions

* EMLSR-operating non-AP STA MLD can not receive a PPDU without the reception of an initial control frame
* If a P2P recipient peer is an EMLSR-operating STA, a P2P transmitter (non-AP STA MLD with shared TXOP) can not directly transmit data to an EMLSR-operating P2P recipient STA.



* In 1535r1, a method that a P2P initiator STA sends initial control frame to a P2P recipient STA, which is a non-AP STA affiliated with EMLSR non-AP MLD was discussed. In this contribution, 1535r2, a simpler method to address the issue is discussed: EMLSR non-AP MLD disables EMLSR mode before performing P2P operation.
* The proposed resolution is disabling EMLSR mode operation of an EMLSR non-AP MLD before performing P2P communication. It can be accomplished during or before P2P setup procedure (e.g., TDLS setup).
	+ E.g., Before TDLS setup is completed, a non-AP STA MLD’s EMLSR mode shall be disabled. After the non-AP STA MLD’s EMLSR mode is disabled, TDLS setup can be completed and peer-to-peer communication between the STA and the other STA can be performed.



## Proposed Changes to IEEE 802.11be D2.3

35.2.1.2.3 Non-AP STA behavior

***TGbe editor: add the following changes at P434L56 of 11be draft 2.3:***

(#14027)(#13317)(#14056) The non-AP EHT STA may use the time allocated by the associated AP in the MU-RTS TXS Trigger frame with the Triggered TXOP Sharing Mode subfield value set to 2 for transmission of non-TB PPDUs to the AP or another STA(s) if the (#12943) Triggered TXOP Sharing Mode subfield value is 2. The non-AP EHT STA may (#13722) return a QoS Data or QoS Null frame to an associated AP to terminate the allocated time, (#12503)in which case the RDG/More PPDU subfield in the CAS Control subfield of the HE variant HT Control field of the frame is equal to 0.

NOTE 1—For example, the other STA can be a peer STA of a peer-to-peer link.

NOTE 2—Before a non-AP EHT STA transmits non-TB PPDU to the other STA in time allocated by the associated AP, it should complete a TDLS setup with the other non-AP STA.

35.3.17 Enhanced multi-link single radio operation

***TGbe editor: add the following changes at P518L47 of 11be draft 2.3:***

When a non-AP MLD that is operating in EMLSR mode and if the non-AP MLD has to setup TDLS in one of the EMLSR links, it shall disable its EMLSR mode and shall be capable of receiving frames without the reception of an initial control frame on a link which TDLS Discovery request frame, TDLS Discovery response frame, TDLS Setup request frame, TDLS Setup response frame, TDLS Setup confirm frame and TDLS teardown frame are received or transmitted.