IEEE P802.11
Wireless LANs

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| Comment Resolution on CID 3455 |
| Date: 2018-11-09 |
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Abstract

This submission proposes resolution of comments on MIMO BF received from LB #234 (TGay Draft 2.0).

- 1 CID: 3455

# CID 3455

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| --- | --- | --- | --- | --- |
| **CID** | **Page Number** | **Line Number** | **Comment** | **Proposed Change** |
| 3455 | 254 | 25 | If MIMO BF is not received the initaitor would not know to re-transmit because it is an action no ack frame. In this case the responder needs to poll the initiator for an re-transmission | specify a poll from responder for recovery |

**Discussion:**

***D2.0 P254L25***



This CID is related to the SU-MIMO BF feedback subphase in case of feedback delay for the responder link and no feedback delay for the initiator link as shown above. The issue raised by this CID is agreeable. However, the responder may not be able to know when to poll the initiator for a retransmission since the delayed MIMO BF Feedback frame sent by the initiator is subject to DMG channel access rules. As a result, the proposed solution does not work well. As an alternative, it is proposed that the responder shall transmit a blank MIMO BF Feedback frame to acknowledge the successful reception of the delayed MIMO BF Feedback frame from the intiator. Based on this, the initiator would be able to know whether a retransmission is needed.

**Proposed Resolution:**

**Revised**.

**Proposed Text Updates:**

**---------------------------------------------------------------------------------------------------------------------**

**10.43.10.2.2 SU-MIMO beamforming**

**10.43.10.2.2.3 MIMO phase**

**10.43.10.2.2.3.2 Non-reciprocal MIMO phase**

*TGay Editor: Update the D2.1 P255L47 as shown below.*

If the ComeBack Delay field of the MIMO BF Feedback frame transmitted by the initiator is set to a nonzero value and the ComeBack Delay field of the MIMO BF Feedback frame received from the responder is set to zero, the initiator shall send a MIMO BF Feedback frame which contains SU-MIMO BF feedback for the responder link immediately after its comeback delay has elapsed and the MIMO BF Feedback frame has been received from the responder subject to the DMG channel access rules in a DTI. The responder shall respond with a MIMO BF Feedback frame with the Ack Only field in the MIMO Feedback Control element set to 1 a SIFS following the reception of the MIMO BF Feedback frame which contains SU-MIMO BF feedback for the responder link.

**9.6.21.6 MIMO BF Feedback frame format**

*TGay Editor: Update the Table 34 in D2.1 P169L14 as shown below.*

|  |  |
| --- | --- |
| Order | Information |
| 1 | Category |
| 2 | Unprotected DMG Action |
| 3 | Dialog Token |
| 4 | MIMO Feedback Control element |
| 5 | Zero or more Channel Measurement Feedback elements |
| 6 | Zero or more EDMG Channel Measurement Feedback elements |
| 7 | Zero or more Digital BF Feedback elements |

**9.4.2.260 MIMO Feedback Control element**

*TGay Editor: Update the Table 18 in D2.1 P127L5 as shown below.*

|  |  |  |
| --- | --- | --- |
| Field | Size (bits) | Meaning |
| Element ID | 8 |  |
| Length | 8 |  |
| Element ID Extension | 8 |  |
| SU/MU | 1 | This field is set to 0 to indicate SU-MIMO beamforming and is set to 1 to indicate MU-MIMO beamforming.  |
| Link Type | 1 | This field is set to 0 to indicate initiator link and is set to 1 otherwise. This field is set to 0 when the SU/MU field is set to 1.  |
| Comeback Delay | 3 | This field indicates whether MIMO BF feedback is included in the MIMO BF Feedback frame containing the MIMO Feedback Control element or when the EDMG STA transmitting the MIMO Feedback Control element will be ready with MIMO BF feedback. The encoding of this field is defined in Table 14. This field is reserved when the Ack Only field is set to 1. |
| MIMO FBCK-TYPE | 12 |  |
| Digital Fbck Control | 30 | Defines the requirements for the digital feedback type.  |
| Ack Only | 1 | This field is set to 1 to indicate the only purpose of this frame is to acknowledge successful reception of a MIMO BF Feedback frame; and set to 0 otherwise. |

*TGay Editor: Update the D2.1 P127L8 as shown below.*

The MIMO FBCK-TYPE field is defined in Figure 73. This field is reserved when the Comeback Delay field is set to a nonzero value or the Ack Only field is set to 1.