IEEE P802.11
Wireless LANs

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| LB239 Comment Resolution II |
| Date: 2019-03-29 |
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Abstract

This submission proposes resolutions to comments submitted in LB239. The text used as reference is D3.0.

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 4142 | 10.43.10.5.2.4 | 318.14 | "BRP frames sent in a BRP TXSS performed in a 2.16+2.16 GHz or a 4.32+4.32 GHz channel shall be sent using the EDMG control mode": this is limitting and unnecessary for packets carrying long feedback | replace with "BRP frames sent in a BRP TXSS performed in a 2.16+2.16 GHz or a 4.32+4.32 GHz channel with the TXVECTOR parameter EDMG\_TRN\_LEN greater than 0 shall be sent using the EDMG control mode" |

**Proposed resolution**: Revised

**Discussion**: The initiator of a BRP TXSS defines the use of an aggregated channel in the setup phase (TXVECTOR parameter CHANNEL\_AGGREGATION set to AGGREGATE). The channels used in the procedure are defined in the BW field of the EDMG-Header-A of each transmitted packet. Thus, packets in all BRP TXSS phases, except for the ones that carry feedback or acknowledgement, must use EDMG (and not non-EDMG) control mode PPDUs.

**Modifications**: *Please modify lines 14-22 of page 318 as follows:*

BRP frames sent in a BRP TXSS performed in a 2.16+2.16 GHz or a 4.32+4.32 GHz channel during the setup phase or with the TXVECTOR parameter EDMG\_TRN\_LEN greater than 0 shall be sent using the EDMG control mode. BRP frames sent in a BRP TXSS with feedback or with acknowledgement shall be transmitted using an EDMG PPDU or a non-EDMG duplicate PPDU. ~~In this case, as~~ As defined in 29.3.3.3.2.2, the total number of transmit chains, NTX, is an even number, and the first NTX/2 transmit chains are used for transmission on the primary channel and the second NTX /2 transmit chains are used for transmission on the secondary channel. ~~Also in this case, in~~ In the setup phase, if an implementation has not yet determined AWVs to use in the secondary channel, the AWVs used by the NTX/2 transmit chains used for transmission on the secondary channel is selected in an implementation dependent manner. If a BRP frame sent in a BRP TXSS performed in a 2.16+2.16 GHz or a 4.32+4.32 GHz includes a TRN field, the TXVECTOR parameter TRN\_AGGREGATION shall be set to AggregationTRN.

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 4143 | 10.43.10.5.3 | 319.18 | "A BRP frame with feedback transmitted": you may want to this pargraph that the comeback delay field shall be set 0. | Add at the end of the paragraph: "The Comeback Delay field of this frame shall be set 0." |

**Proposed resolution**: Rejected

**Discussion:** BRP TXSS is not a request-response procedure, but instead a full protocol. As defined in lines 14-17 in page 319 and in lines 1-3 in page 320, the BRP frame with feedback transmitted by the initiator/responder is separated from the last EDMG BRP-TX packet transmitted by the responder/initiator by an MBIFS interval. That is, feedback shall be ready/transmitted within MBIFS.

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 4469 | 29.9.2.2.4 | 585.05 | An EDMG BRP packet can be EDMG control mode PPDU. Descrption on EDMG BRP packet duration is missing for the case that EDMG BRP is sent in EDMG control mode. | Add descrption on EDMG BRP packet duration for the case that EDMG BRP is sent in EDMG control mode. |

**Proposed resolution**: Revised

**Discussion**: As defined in Table 55 (D3.0), the presence and basic configuration (length/P/M/N) of the TRN field is transmitted in the first LDPC codeword (EDMG-Header-A1).  However, further configuration of the TRN field is transmitted in the EDMG-Header-A2 (aggregation/bonding, TX chains, DMG TRN, first path, dual polarization), which is carried in the second codeword.

A packet that carries a BRP frame has at least 19 octets (and thus contains at least three codewords). As a result, any EDMG BRP packet sent in EDMG control mode that carries a BRP frame has enough time to setup the RF chip after decoding the EDMG-Header-A2. However, as of today, there is nothing in the draft that mandates that an EDMG control mode PPDU that carries a TRN field shall carry a BRP frame.

Note: DMG Beacon frames are transmitted using DMG control mode (see 10.6.7.1, D2.0). As defined in the same subclause, SSW frames are either transmitted using DMG control mode or DMG SC mode. And “a short SSW packet is a DMG control mode PPDU” (page 580).

**Modifications**: *Please add the following paragraph at the end of 29.9.2.2.4 (EDMG BRP packet duration):*

The value of the PSDU Length field within the EDMG-Header-A of an EDMG BRP packet sent in EDMG control mode shall be greater than or equal to 19.

*Please modify the first paragraph of 29.9.2.2.4 (EDMG BRP packet duration):*

The minimum duration of the Data field of an EDMG BRP packet sent in EDMG SC mode or in EDMG OFDM mode is specified by the TXVECTOR parameter EDMG\_BRP\_MIN\_SC\_BLOCKS.