IEEE P802.11
Wireless LANs

|  |
| --- |
| LB239 Comment Resolution II |
| Date: 2019-04-03 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Claudio da Silva | Intel |  |  | claudio.da.silva@intel.com |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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). Also, “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.

Note: The above requirement can be met by, for example, including a BRP frame in the PSDU.

*Please add the following at the end of 29.9.2.2.1:*

Note: An EDMG BRP packet does not necessarily have to include a BRP frame in the PSDU.

*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.