IEEE P802.11  
Wireless LANs

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| 802.11  [LB249 CR for Various Comments without clause number]  (relative to P802.11az/D2.0) | | | | |
| Date: 2020-01-30 | | | | |
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**Abstract**

This submission contains proposals to resolve LB#249 CIDs 3829, 3511, 3630, 3708,3709, 3716

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| 3829 | P.46  L.2 | 9.3.1.22.10 | ", and the size of this field is one octet" is duplication, as is ", and the size of this field is two octets" at line 10. Also "The CFO parameter field is a signed value of length 2 octets." at 97.4 | Delete the cited text | Revised.  TGaz editor make the changes identified by submission 11-20-0256 below. |

**Discussion:**

This resolution was already presented, strawpolled and met threshold as is but the CID number had a typo showing 3892 instead of 3829 – without change to resolution.

802.11 style guide indicates that in the case of frame/element formats, which are given in a figure and thus normative, the size of the element can be provided in the figure and thus does needs not specifically identified in the immediate accompanying text. However this is not the case for the 2nd quoted parameter “CFO parameter field” which appears on a different page and for text readability purposes the size of the field is given.

**Resolution:**

**TGaz Editor: Modify the subclause 9.3.1.22.10 P.46 L.2 (D2.0) as follows:**

**9.3.1.22.10 Ranging Trigger variant** (#1707)

The Trigger Subtype field value in the Trigger Dependent Common Info field of the Ranging Trigger frame (Table 9-25k Ranging Trigger subtype field encoding) signals Ranging Trigger 22 frame subvariants (#1391, #1939). The format of the Trigger Dependent Common Info field of Ranging Trigger frame of subvariant Poll, Sounding, Secure Sounding and Report is shown in Figure 9-61d.x.

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| 3511 | P.129  L.44 | 11.22.6.4.2.1.2 | Expressions like " Ack frames with PACKET-TYPE equal to TRN-T-PACKET " should refer to this being a \*VECTOR parameter | As it says in the comment | Revised.  The commenter is correct that the PACKET-TYPE is a RxVector parameter.  TGaz editor make changes identified below in submission 11-20-256. |

**Resolution:**

**TGaz Editor make changes identified below to P802.11az D2.0 P.130 L.44:**

**11.22.6.4.2.1.2 PDMG/PEDGM AOA/AOD measurement exchange**

…If the RSTA has set the AOD Channel Measurement Feedback subfield to 1 in the DMG Direction Measurement Capabilities field, it shall also include a Channel Measurement Feedback Type field and a Channel Measurement Feedback field in the Fine Timing Measurement frames sent to the ISTA following the reception of the Ack frames that its RXVECTOR PACKET-TYPE parameter equal to TRN-T-PACKET.

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| 3489 |  | 4.3.19.19 | It is not clear what "device" means | Change to "STA" in 4.3.19.19 Fine timing measurement, 11.22.6.4.2.1.1 General , 11.22.6.4.3.4 TB Ranging measurement reporting phase | Revised.  The commenter is correct, DMG device has 0 occurrences in REVmd and 11ay D5.0.  TGaz editor make the changes identified in 11-20-0256 below. |

**Resolution:**

**TGaz Editor: Modify the subclause 4.3.19.19 P.22 L.13 (D2.0) as follows:**

DMG and EDMG STAs can also estimate the direction of the transmission (Angle of 13 Departure) of frames transmitted to and reception (Angle of Arrival) of frames received from a 14 peer, allowing for estimating position using measurements obtained from frame exchanges with a 15 single peer (#1759, #1760, #1901, #2485, #2486, #2487, #2488).

**TGaz Editor: Modify the subclause 11.22.6.4.2.1.1 P.129 L.15 (D2.0) as follows:**

A PDMG/PEDMG ISTA/RSTA performs an FTM exchange that does not require AOA or AOD 9 measurements as defined in 11.22.6.4.1 (EDCA based ranging measurement exchange). To 10 perform an FTM exchange that does require AOD or AOD measurements, it follows the 11 procedure in 11.22.6.4.2.1.2 (PDMG/PEDMG AOA/AOD measurement exchange). In both 12 these cases, when the first path AWV setting is not used in the exchange, the trigger field shall be 13 set to 1 in the Fine timing Measurement Request that initiates the exchange. In both cases the 14 same AWV used for data transfer between the STAs shall be used for transmission and 15 reception of the preamble and data portion of the PPDUs. (#**1442**, #**2345**, #**2346**)

**TGaz Editor: Modify the subclause 11.22.6.4.3.4 P.144 L.10 (D2.0) as follows:**

In the secured mode of TB Ranging, a STA should discard ranging measurements when it 10 detects that the transmit center frequency offset (CFO) between the ISTA and the RSTA exceeds 11 the allowed tolerance from the values specified in 27.3.18.3 and 27.3.14.3.

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| 3630 |  |  | If the thing being measured for legacy FTM is called "RTT" then so should what is measured for the new ToF-based mechanisms | Change "ToF" to "RTT" throughout | Revised.  Agree with commenter the 11az draft uses the terms interchangeably.  Refer to discussion depicted in submission11-20-0159 below.  TGaz editor replace all occurrences of TOF with RTT.  Note:  DTOF\_PRI and TOF\_PR, TOF\_PI should remain as is the current draft. |

**Discussion:**

RTT is defined by eq. 11-5 which is limited to EDCA based FTM.

RTT has 13 occurrences in D2.0, 6 in REVmd D3 while TOF has 0 occurrences in REVmd D3.0 and 46 in 11az D2.0.

The use of TOF is made in sections dealing with TB, NTB and passive sections interchangeably with RTT.

It would be advisable to use a single term.

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| 3708 |  |  | There are references to "Trigger Poll frame" but these are not defined | Delete the cited text in 6.3.56.1 General, 9.3.1.19 VHT/HE/Ranging NDP Announcement frame format (2x), 9.3.1.22.10 Ranging Trigger variant (#1707) (3x), 11.22.6.4.3.3 Measurement Sounding Phase of TB Ranging (#2158) (2x) | Revised.  Agree in principal, refer to discussion below.  TGaz editor, make changes identified below (total of 7 occurances). |

**Discussion:**

P802.11az defines a Trigger frame of variant ranging sub-variant poll in section 11.22.6.4.3.2

*“The Ranging Trigger frame of subvariant Poll is called the TF Ranging Poll”*

The Term Trigger Poll frame should be replaced with TF Ranging Poll.

**Resolution:**

**TGaz Editor replace all occurrences of ‘Trigger Poll frame’ with TF Ranging Poll (total of 7).**

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| 3709 |  |  | There's a "Sounding Dialog Token Number" field and a "sounding dialog token counter" but neither of these actually get used on reception for anything | As it says in the comment | Reject.  This field is part of 802.11ac and 802.11ax NDPA frame, commenter should review those amendments for the full descriptive behavior of use of the field.  For the benefit of the commenter refer also to discussion in submission 11-20-0256 below. |

**Discussion:**

The NDPA frame is a control frame used as part of the sounding mechanism of 11ac, 11ax and 11az.

The NDPA frame includes a field named Sounding Dialog Token which is used by 11ac VHT NDP Announcement frame and in 11ax HE NDP Announcement frame.

The ISTA use of the Sounding Dialog Token and matching of that to measurement is described in P.145 L28-30 of D2.0.

“The ISTA maintains a sounding dialog token counter modulo 64 for each RSTA corresponding to a Non-TB Ranging session. The value in the counter is filled in the Sounding Dialog Token 29 Number subfield in its transmitted Ranging NDP Announcement frame. 30”.

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| 3716 | P143  L.16 |  | |  |  | | --- | --- | | There's lots of talk of allocating resources, but it's not always clear what this really means | When it just means "schedule for UL MU", say that; when it just means "transmit to using DL MU", say that (see e.g. sentence at 143.19) | | When it just means "schedule for UL MU", say that; when it just means "transmit to using DL MU", say that (see e.g. sentence at 143.19) | Reject.  This is an invalid comment, see further discussion below. |

**Discussion:**

This is an invalid comment, it fails to identify a specific problem in a meaningful way, it is not possible to understand what specific issue (page, line) is identified, the comment just requires the CRC to “do some work”.

The comment provides an example but this example seems to be reasonably understandable for those familiar with 802.11ax amendment.

**“***This TF shall allocate uplink resources to ISTAs that negotiated ISTA2RSTA LMR and were allocated resources in the preceding measurement 20 sounding phase. 21”*