IEEE P802.11
Wireless LANs

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| CR for Some PHY Related CIDs in LB249 |
| Date: 2020-05-12 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Feng Jiang | Intel | 3600 Juliette Ln, Santa Clara, CA 95054 |  | feng1.jiang@intel.com |
| Qinghua Li | Intel |  |  | qinghua.li@intel.com |

Abstract

This submission addresses the following CIDs in LB249:3892, 3629, 3271

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| 3892 | 202 | 27.3.17a | For NTB ranging consider including NDPA parameters like I2R/R2I N\_rep, Nsts, ltf-offset in HE-SIGA too. This will simplify receiver implementation. Receiver can look at HESIGA instead of NDPA (no need to buffer parameters) | As per comment | RejectedRefer to submission 11-20-0759-02. The TGaz group discussed the topic and no concensus was achieved.  |

**Discussions:**

In the 11az, NTB ranging, the user info field in NDPA includes Nsts for I2R NDP and Nsts for R2I NDP and R2I Rep and I2R Rep, and the Offset is always set to 0. For the HE-SIG-A of the R2I NDP or I2R NDP, the NSTS And Midamble Periodicity should be set accord to the values indicated in NDPA and the receiver only needs to buffer the single parameter I2R Rep or the parameter R2I Rep.

If the HE-SIG-A is used to indicate I2R Rep or R2I Rep, this will not work for the secured TB ranging mode, since in secured TB ranging, the ISTA still needs to buffer the R2I Rep based on the NDPA frame. This will create NTB mode and TB mode for the ISTA and complicate the hardware design at ISTA side.

A similar proposal was discussed in TGaz ad hoc meeting June, 2019 (802.11-19/1046r0), and the straw poll was not passed.

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| 3629 | 199 | 27.2.2 | LTF\_OFFSET - not needed in RxVector nor TxVector | Remove from Table 27-1--TXVECTOR and RXVECTOR parameters | Accepted TGaz editor makes changes as specified in 11-20/0759r1 for CID 3629 |

*TGaz Editor: please remove the first rows on page 199 of Table 27-1 TXVECTOR and RXVECTOR parameters of 11az D2.0 as below:*

**Table 27-1—TXVECTOR and RXVECTOR parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter**  | **Condition** | **Value**  | **TXVECTOR**  | **RXVECTOR**  |
|   |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| 3271 | 202 | 27.3.17a | "... and TXVECTOR parameter LTF\_OFFSET that indicates the number of HE-LTF to skip to receive" there is no TXVECTOR parameter LTF\_OFFSET, since it is not used in transmission. Also this statement should appear later after LTF\_REP and the secure HE-LTF structure have been described. | Remove this whole bullet point, instead add a paragraph at the end of the subclause "For decoding the HE-LTF fields, a PHY-RXLTFSEQUENCE.request primitive issued from the MAC provides the LTF\_REP parameter and LTF\_OFFSET parameter, which are not encoded in the HE-SIG-A, but included in the preceeding Ranging NDP Announcement frame. The LTF\_OFFSET parameter indicates the number of secure HE-LTF to skip to receive for each user, e.g., in Figure 27-52d the LTF\_OFFSET for the first and second user would be 0 and 4 respectively." | RevisedAgree in principle with the commentor.TGaz editor makes changes as specified in 11-20/0759r1 for CID 3271 |

*TGaz Editor: please remove the lines 22-26 on page 202 of 11az D2.0 as below:*

— The TXVECTOR parameter LTF\_REP that indicates the number of repetitions of the HE-LTF symbols . For decoding the HE-LTF fields, a PHY-RXLTFSEQUENCE.request primitive issued from the MAC provides the LTF\_REP parameter and LTF\_OFFSET parameter, which are not encoded in the HE-SIG-A, but included in the preceeding Ranging NDP Announcement frame. The LTF\_OFFSET parameter indicates the number of secure HE-LTF symbols to skip for receiving the corresponding user’s HE-LTF field, e.g., in Figure 27-52d the LTF\_OFFSET for the first and second user would be 0 and 4 respectively.