IEEE P802.11  
Wireless LANs

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | LB253 CR for Subclause 9.3.1.19 | | | | | | Date: 2021-06-30 | | | | | | Author(s): | | | | | | Name | Affiliation | Address | Phone | email | | Tianyu Wu | Apple Inc. |  |  | Tianyu@apple.com | | Qi Wang | Apple Inc |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |

Abstract

This submission proposes resolutions for the following comments from comment collection on P802.11az D3.0:

5001, 5002, 5103, 5106, 5160, 5423, 5432, 5433, 5434, 5436

**Revision History:**

R0: Initial version.

# CID 5001

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 5001 | 9.3.1.19 | 42.28 | Add a text to include use of TXBSSID for TA field for NDPA in TB similar to the Trigger frame in case when RSTA is Multiple BSSID. | Similar text as for Trigger frame in page 48 line 17-21...  'The TA field for the NDP Announcement frame set to the address of the RSTA transmitting the NDPA frame if the NDPA is addressed only to ISTAs with which that RSTA has a TB Ranging measurement exchange (11.21.6.4.3). The TA field is the transmitted BSSID if the NDPA frame is addressed to set of ISTAs in which at least two ISTAs have a TB Ranging Measurement exchange with a different BSSID in the Multiple BSSID set of the RSTA.' | **Revised**  Agree in principle.  **Instruction to TGaz Editor:**  Make the changes as shown in https://mentor.ieee.org/802.11/dcn/21/11-21-1034-01-00az-lb253-CR-for-9.3.1.19.docx |

**Proposed Text Updates: CIDs 5001**

*Instruction to TGaz Editor: Modify the text at D3.0 P41, L23-28 as follows.*

The TA field is set to the address of the STA transmitting the VHT/HE/Ranging NDP Announcement frame or the bandwidth signaling TA of the STA transmitting the VHT/HE/Ranging NDP Announcement frame. In a VHT/HE/Ranging NDP Announcement frame transmitted by a VHT or HE STA in a non-HT or non-HT duplicate format and where the scrambling sequence carries the TXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT, the TA field is set to a bandwidth signaling TA. If a Ranging NDP Announcement frame is addressed to a set of ISTAs in which at least two ISTAs have a TB Ranging Measurement exchange with a different BSSID in the Multiple BSSID set of the RSTA then the TA field is the transmitted BSSID

# CID 5002, 5103, 5160, 5434

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| 5002 | 9.3.1.19 | 44.2 | Add the word 'other' before cases in the phrase below 'The LTF Offset subfield is set to 0 in all cases' | As per comment | **Accepted.** |
| 5103 | 9.3.1.19 | 44.2 | "The LTF Offset subfield is set to 0 in all cases" - I think the word "other" is missing, otherwise the of LTF offset and the whole paragraph is useless | change to "The OTF Offset subfield is set to 0 in all other cases" | **Revised**  This is a duplicate CID to CID 5002.    **Instruction to TGaz Editor:**  This is resolved in CID 5002. No further action is needed. |
| 5160 | 9.3.1.19 | 44.2 | "The LTF Offset subfield is set to 0 in all cases." | Not correct, contradicts preceding statement. Change to "The LTF Offset subfield is set to 0 in all other cases." or remove (reserved fields are set to zero anyway). | **Revised**  This is a duplicate CID to CID 5002.    **Instruction to TGaz Editor:**  This is resolved in CID 5002. No further action is needed. |
| 5434 | 9.3.1.19 | 44.2 | "The LTF Offset subfield is set to 0 in all cases." | Modify the sentence to "The LTF Offset subfield is set to 0 in all other cases." | **Revised**  This is a duplicate CID to CID 5002.    **Instruction to TGaz Editor:**  This is resolved in CID 5002. No further action is needed. |

# CID 5106

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| 5106 | 9.3.1.19 | 45.21 | Some indication of bandwidth over which the RSSI is measured or expected is required in the paragraph. | Add text saying either that the RSSI is per 20MHz bandwidth or that it is over all the bandwidth | **Rejected.**  The R2INDP Target RSSI subfield follows the definition of UL Target Receive Power subfield in 11ax. In 11ax, the power is defined as actual power in dBm when no per 20MHz normalization is specified. After 11az merged with baseline spec, there will be no ambiguity for the definition. |

**Discussion**

The definition of UL Target Recive Power in 11ax (unit dBm):



When the power is normalized per 20MHz, it will be clearly specified (unit dBm/20MHz):



# CID 5423

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| 5423 | 9.3.1.19 | 43.1 | A number of PHY parameters signaled in HE-SIG-A in 11ax are now signaled in NDPA. The definition of the corresponding fields in HE-SIG-A shall also be clarified that whether they are disregard or still indicate correct parameters. For example, it will be helpful if "NSTS And Midamble Periodicity" can be correctly set to indicate the NSTS or number of HE-LTFs per repetition. MCS field can be set to disregard. | Clarify the definition of HE-SIG-A fields such as "NSTS And Midamble Periodicity", "HE MCS" etc. | **Revised**  Agree in principle. A few subfields in HE-SIG-A are no longer useful or no longer clear in definition. Add some clarification text in the spec.  **Instruction to TGaz Editor:**  Make the changes as shown in https://mentor.ieee.org/802.11/dcn/21/11-21-1034-01-00az-lb253-CR-for-9.3.1.19.docx |

**Discussion**

In HE Ranging NDP, how to set the NSTS And Midamble Periodicity field is not clear. Clarify that this field is set to the number of space-time streams of the first target user in the HE Ranging NDP.



**Proposed Text Updates: CIDs 5423**

*Instruction to TGaz Editor: Insert the following text at D3.0 P226, after L11.*

The NSTS And Midamble Periodicity field in HE-SIG-A is set to the number of space-time streams of the first user minus 1.

# CID 5432

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| 5432 | 9.3.1.19 | 42.15 | The meaning of setting both the "HE" subfield and the "Ranging" subfield of the "Sounding Dialog Token" field is undefined. | Add a sentence that "Setting both the HE subfield and the Ranging subfield of to 1 is reserved. | **Revised**  Agree in principle. Add a sentence to clarify that both fields set to 1 is a reserved setting.  **Instruction to TGaz Editor:**  Make the changes as shown in https://mentor.ieee.org/802.11/dcn/21/11-21-1034-01-00az-lb253-CR-for-9.3.1.19.docx |

**Proposed Text Updates: CIDs 5432**

*Instruction to TGaz Editor: Insert the following text at D3.0 P42, L15.*

The HE subfield and Ranging subfield in the Sounding Dialog Token field are set to 0 to identify the frame as a VHT NDP Announcement frame; the HE subfield and Ranging subfield are set to 1 and 0 respectively to identify the frame as an HE NDP Announcement frame; the HE subfield and Ranging subfield are set to 0 and 1 respectively to identify the frame as a Ranging NDP Announcement frame (#**1100**, #**1329**, #**1704**, #**1917, #2282, #3503**). The combination that the HE subfield and Ranging subfield in the Sounding Dialog Token field both set to 1 is reserved.

# CID 5433

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| 5433 | 9.3.1.19 | 43.19 | "If the AID11 subfield is less than 2008 (#3222), it identifies a STA that is intended to receive this frame and assigns the parameters within this STA Info field to this STA. In case of the TB Ranging measurement exchange, see 11.22.6.4.3 (TB Ranging measurement exchange), the AID11 subfield contains the 11 least significant Bits of the AID or RSID of an associated STA or an unassociated STA respectively (#1194, #1608, #1771, #1785), expected to process the following NDP frame. .}" It' not clear whether a single or multiple STA info fields are included in the ranging NDPA when the RA field is set to the broadcast address. | Add after the quoted text that, "There are multiple STA Info fields included when the RA field is set to the broadcast address." | **Rejected**  This is already mentioned in the paragraph above. |

# CID 5436

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| 5436 | 9.3.1.19 | 44.21 | "The SAC subfield contains the 16bit SAC used in the non-TB Ranging measurement exchange with Secure LTF; see 11.21.6.4.5.3 (Non-TB Ranging Measurement Exchange with Secure LTF)." Please clarify whether SAC is included in the ranging NDPA for TB ranging. | Please add the sentence, The SAC subfields is not included in the ranging NDPA used in TB ranging. | **Rejected**  The STA info field including AID 2043 is used for only for non-TB ranging. |