IEEE P802.11
Wireless LANs

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| Resolutions for Exchange CIDs for LB281 |
| Date: 2024-01-14 |
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Abstract

This submission proposes resolutions to the following comments submitted in LB281 under Exchange topic. The CIDs are referring to D3.0. The text used as reference is D3.0.

CIDs: 4032 4033 4039 4084 4179 4287 4288 4301 4304

Revision history:

R0: Original version

R1: Changed CID 4039, 4287, 4288 from “Accepted” to “Revised”.

R2: Added references to TXVECTOR for the resolution of CID 4287 4288.

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| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 4032 | Chaoming Luo | 151.32 | a TB sensing measurement exchange contains only one NDPA, so the current text needs refinement. | Change to "A STA Info field with the AID11 field set to 2044 shall be present in a transmitted Sensing NDP Announcement frame as part of a TB sensing measurement exchange." | Accepted. |

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| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 4033 | Chaoming Luo | 153.55 | a TB sensing measurement exchange contains only one SR2SI Sounding Trigger frame, so the current text needs refinement. | Change to "A User Info field with the AID12/USID12 field set to 2008 shall be present in a SR2SI Sounding Trigger frame as part of a TB sensing measurement exchange." | Rejected. See rejection reason below in <DCN0109r2>. |

**Discussion:** There may be multiple SR2SI Sounding Trigger frames in the TF sounding phase in a TB sensing measurement exchange, as illustrated in Figure 11-102f.

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| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 4039 | Chaoming Luo | 158.50 | We should add normative text to clarify SR2SI NDP always exists in a non-TB case. | Add a sentence "The AP addressed by the Sensing NDP Announcement frame shall transmitt an SR2SI NDP a SIFS after the SI2SR NDP." | Revised. Accept the sentence but correct the spelling of “transmit”. |

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| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 4084 | Xiandong Dong | 159.34 | It seems that the statement of this sentence contrdicts with the AC which is defined in the Table 11-21, remove the sentence or the table. | as in comment | Rejected. See rejection reason below in <DCN0109r2>. |

**Discussion:** Table 11-21 is about the default QMF policy of the Management and Action frames related to sensing, while Sensing NDPA frame is a Control frame, so there is no contradiction. The contributor has talked to the commenter, and the commenter is fine with the rejection of this CID.

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| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 4179 | Manish Kumar | 151.45 | Why is the polling phase in TB sensing optional? | Disallow such frame exchange sequences for sensing. | Rejected. See rejection reason below in <DCN0109r2>. |

**Discussion:** Currently the polling phase can be skipped as long as the following conditions are met:

1. The STA declares it does not require to be polled for a TB sensing measurement exchange by setting the Poll Required field to 0 in the Sensing field within the Sensing Capabilities element.
2. The AP sets the Poll Assigned field to 0 in the Sensing Measurement Request frame transmitted to the STA declaring not requiring to be polled.

So, it is still up to the AP to decide whether a STA needed to be polled even if a STA indicates it does not require to be polled. The main motivation for TGbf to allow the scenario where the polling phase can be omitted is if the AP and the STA are confident enough to skip the polling phase, we can save the overhead associated with the polling phase.

The contributor has explained the rejection reasoning with the commenter offline. The commenter did not raise any more concerns.

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| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 4287 | Chris Begs | 152.38 | For the TB exchange, there is currently no signaling during the measurement setup which allows negotiation or usage of the Secure LTF feature of the HE/EHT TB Ranging NDP. As a result, extra clarity should be added to indicate the secure LTF is not used for sensing. An easy way to indicate this is to constrain the SECURE\_LTF\_FLAG to always be set to 0 when transmitting SR2SI, SI2SR, or SR2SR NDPs.The same comment applies to the SR2SR variant (11.55.1.5.2.5), and the SI2SR NDP in the NDPA phase (11.55.1.5.2.3). | Add the following text to section 11.55.1.5.2.4:"When transmitting an SR2SI NDP in response to a SR2SI Sounding Trigger frame, a sensing transmitter shall set the TXVECTOR parameter SECURE\_LTF\_FLAG to 0" | Revised. Agree with the commenter that we should add the clarification text, but it is better that we add the text applying to all NDPs that apply to both TB and non-TB scenarios. See proposed change below in <DCN0109r2>. |
| 4288 | Chris Beg | 159.09 | Add the following sentence to the end of the second paragraph of page 159 (line 11):"When transmitting either an SI2SR NDP or SR2SI NDP as part of a non-TB measurement exchange, a sensing transmitter shall set the TXVECTOR parameter SECURE\_LTF\_FLAG to 0". | Add the following sentence to the end of the second paragraph of page 159 (line 11):"When transmitting either an SI2SR NDP or SR2SI NDP as part of a non-TB measurement exchange, a sensing transmitter shall set the TXVECTOR parameter SECURE\_LTF\_FLAG to 0". | Revised.Agree with the commenter that we should add the clarification text, but it is better that we add the text applying to all NDPs that apply to both TB and non-TB scenarios. See proposed change below in <DCN0109r2>. |

**TGbf editor, add the following paragraph to the end of 11.55.1.5.4 Common Rules**

The TXVECTOR parameter SECURE\_LTF\_FLAG of a transmitted SI2SR NDP, SR2SI NDP, or SR2SR NDP shall be set to 0 (see 27.2.2 TXVECTOR and RXVECTOR parameters and 36.2.2 TXVECTOR and RXVECTOR parameters).

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| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 4301 | Liuming Lu | 157.55 | The descrption is confusing. | Suggest to change "Non-TB sensing measurement exchange is the non-trigger-based variant of a sensing measurement exchange." to "A Non-TB sensing measurement exchange is the non-trigger-based variant of a sensing measurement exchange." | Accepted. |

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| **CID** | **Commenter** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 4304 | Liuming Lu | 157.61 | The descrption is confusing especially for the use of frequency. | Suggest to change "The AP may limit the frequency with which the non-AP STA can initiate a non-TB sensing measurement exchange by conveying a minimum time interval between two consecutive non-TB sensing measurement exchanges in the Min Measurement Interval field in the Sensing field during the sensing capabilities exchange." to "The AP may configure a minimum time interval between two consecutive non-TB sensing measurement exchanges initiated by the non-AP STA by setting the value of the Min Measurement Interval field in the Sensing field during the sensing capabilities exchange." | Rejected. See rejection reason below in <DCN0109r2>. |

**Discussion:** For a non-TB sensing measurement where the non-AP STA is the sensing initiator, sensing measurement establishment is essentially ‘configured’ by the non-AP STA and not the AP. The AP provides its capability (i.e., Min-Time), and if the non-AP STA sends a request to configure and AP doesn’t accept it (outside of its capability), it would reject.

Moreover, the use of “frequency” here correctly corresponds to the fact that the AP can provide a sufficient large Min Measurement Interval so that the non-AP STA cannot initiate consecutive non-TB sensing measurement exchanges too soon.

11az had similar normative behavior text “The RSTA can only limit the frequency with which the ISTA can initiate measurements, by setting a minimum time interval between subsequent range measurements.”

## SP

Do you support the proposed resolutions to the CIDs and incorporate the text changes into the latest TGbf draft?

Y/N/A