IEEE P802.11  
Wireless LANs

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| [CR for LB272 NDPA Instance TTT] | | | | |
| Date: 2023-05-08 | | | | |
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Abstract

This submission proposes resolutions for the follwing 19 LB272 CIDs: 1228, 1278, 1279, 1352, 1421, 1433, 1435, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1524, 1541, and 1569. The proposed changes are based on IEEE 802.11bf D1.0 [1].

Revisions:

* Rev 0: Initial version of the document.
* Rev 1:
* Rev 2:

## CID 1228, 1278, 1279, 1352, 1421, 1433, 1435, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1524, 1541, and 1569

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| --- | --- | --- | --- | --- | --- |
| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 1228 | 73.32 | 9.3.1.19.5 | "Wrong sentence: ""The Partial TSF subfield contains 16 bits of the AP's TSF time, TSF[21:6], if the AP that transmitted the Sensing Poll Trigger frame  that preceded the Sensing NDP Announcement frame carrying this STA Info field with AID subfield is equal to 2044.""" | Replace with "The Partial TSF subfield contains 16 bits of the AP's TSF time, TSF[21:6], at the time of transmission of the preceding Sensing Poll Trigger frame." | Revised  Replace the sentence as following  "The Partial TSF subfield contains 16 bits of the AP's TSF time, TSF[21:6], at the time of transmitting the preceding Sensing Poll Trigger frame."  Note to editor: Please incorporate the changes in https://mentor.ieee.org/802.11/dcn/23/11-23-0872-00-00bf-cr-for-lb272-ndpa.docx |
| 1278 | 70.42 | 9.3.1.19.1 | In TB case there is at least one STA as the sensing receiver, so please rephrase the sentence " or non-AP STA " as "or non-AP STA(s)" | as in the comment | Rejected  The RA is set to a specific address when there is only a single destination, otherwise, set to “Broadcast”. |
| 1279 | 73.52 | 9.3.1.19.5 | In MS request or SBP response frame the length of the MSID is 1 byte, but in the figure 9-83e the length is 3 bits, please make them consistently | as in the comment | Rejected  The MSID subfield in NDPA, Trigger Dependent Common Info subfield, Sensing Measurement Report Container field, etc is consistent as 3 bits. The minimum length of a field (MS ID field) is 1 Octet in MS Request frame, MS Response frame, Sensing Measurement Setup Termination frame, etc. The remaining 5 bits in addition to 3 bit MSID in the Octet are Pading bits (Redundant). |
| 1352 | 74.01 | 9.3.1.19.1 | "In the STA Info field with AID subfield equal to 2045" - wrong ariticles? | replace with "In a STA Info field with an AID subfield equal to 204" | Rejected  If an Article is needed, we may need a global change in the entire document. |
| 1421 | 71.31 | 9.3.1.19.1 | "Resrved". What does "reserved" mean here? For example, what is the transmitter supposed to do? | Clarify. | Rejected  Reserved subfield in the B31 of a STA Info field in case the NDPA Variant is Ranging was defined in the Ranging. The Reserved subfield in B31 does not carry any information in the Ranging NDPA. |
| 1433 | 71.34 | 9.3.1.19.1 | The 3rd row and 4th row belong to the same case (a STA info field with AID = 2045 and B31 = 1). There is no need to divide the case into two rows. | Combine the two rows into one: "Sensing NDP Announcement frame in TB or non-TB sensing measurement instance" | Rejected  It is true that the 3rd row and the 4th row correspond to the same case. However, the AID11 equal to 2045 in a STA Info field does not correspond to the Ranging NDPA in a TB Sounding case while it does in a Non-TB Sounding for Ranging NDPA. Hence, in order to distinguish the Sensing NDPA from the Ranging NDPA, we’d better leave it as it is. For a Sensing NDPA, the AID11 equal to 2045 in a STA Info field may be present in both TB and Non-TB Sounding case. |
| 1435 | 71.47 | 9.3.1.19.5 | A NOTE could be added to show that the Sensing NDPA can be followed by an EHT sounding NDP or an HE ranging NDP. | Add a note saying that the Sensing NDPA can be followed by an EHT sounding NDP or an HE ranging NDP (see 11.55.1.5.2.3 for more details). | Rejected  This suggested Note is not appropriate in Clause 9 which is regarding the frame formats. The Clause 11.55.1.5.2.3 explains this enough. |
| 1511 | 70.22 | 9.3.1.19.1 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' | Revised  This affects several sentences in the General Description sub-clause. All the relevant sentences in the sub-clause are updated.  Note to editor: Please incorporate the changes in https://mentor.ieee.org/802.11/dcn/23/11-23-0872-00-00bf-cr-for-lb272-ndpa.docx |
| 1512 | 70.25 | 9.3.1.19.1 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' | Revised  This affects several sentences in the General Description sub-clause. All the relevant sentences in the sub-clause are updated.  Note to editor: Please incorporate the changes in https://mentor.ieee.org/802.11/dcn/23/11-23-0872-00-00bf-cr-for-lb272-ndpa.docx |
| 1513 | 70.27 | 9.3.1.19.1 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' | Revised  This affects several sentences in the General Description sub-clause. All the relevant sentences in the sub-clause are updated.  Note to editor: Please incorporate the changes in https://mentor.ieee.org/802.11/dcn/23/11-23-0872-00-00bf-cr-for-lb272-ndpa.docx |
| 1514 | 71.25 | 9.3.1.19.1 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' (two occurrences in the table? | Revised  Note to editor: Please incorporate the changes in https://mentor.ieee.org/802.11/dcn/23/11-23-0872-00-00bf-cr-for-lb272-ndpa.docx |
| 1515 | 73.34 | 9.3.1.19.5 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' | Revised  The sentence that includes the AID11 is deleted according to the CID 1228.  Note to editor: Please incorporate the changes in https://mentor.ieee.org/802.11/dcn/23/11-23-0872-00-00bf-cr-for-lb272-ndpa.docx |
| 1516 | 73.20 | 9.3.1.19.5 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' | Accepted |
| 1517 | 73.49 | 9.3.1.19.5 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' | Accepted |
| 1518 | 74.01 | 9.3.1.19.5 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' | Accepted |
| 1519 | 74.16 | 9.3.1.19.5 | There is no subfield with the name AID in the NDP Announcement frame. | Change the subfield name to 'AID11' (two occurrences in the header of the table? | Revised  There is only one occurrence when the table is not split.  Note to editor: Please incorporate the changes in https://mentor.ieee.org/802.11/dcn/23/11-23-0872-00-00bf-cr-for-lb272-ndpa.docx |
| 1524 | 72.09 | 9.3.1.19.5 | This STA Info field may be also addressed to unassociated STA. | Change the subfield name to 'AID11/USID11'. This will follow the same naming convention just like the subfield naming of the User Info field in the trigger frames. There may be multiple occurrences in the document. | Revised  This may require a global change in the subfield name of a STA Info field in the Sensing NDPA. The subfield name AID11 needs to be replaced by RSID11/USID11/  AID11.  Note to editor: Please, apply the subfield name change above globally in the Clause 9.3.1.19 NDPA frame format. |
| 1541 | 72.50 | 9.3.1.19.5 | the identifier 'frame' is missing | Change to "... the NDP Announcement frame ... " | Accepted |
| 1569 | 73.09 | 9.3.1.19.5 | NDP Announcement frame has no bandwidth | Change the text to "... if the bandwidth of the PPDU carrying the Sensing NDP Announcement frame is equal to 320 MHz ... : | Accepted |

Propose:

***TGbf editor: please modify the senstence between P73L31 and P70L36 in D1.0 as follows***

The Partial TSF subfield contains 16 bits of the AP’s TSF time, TSF[21:6], ~~if the AP that transmitted~~ *at the time of transmitting the preceding* Sensing Poll Trigger frame.

~~that preceded the Sensing NDP Announcement frame carrying this STA Info field with AID subfield is~~

~~equal to 2044.~~ (#1228, 1515)

The five formats are distinguished by the setting of the NDP Announcement Variant subfield in the Sounding Dialog Token field and the presence or absence of the STA Info field with AID*11* subfield equal to 2045 and with B31 set to 1 (see Table 9-42a (NDP Announcement frame variant encoding) and Table 9-42b (Ranging NDP Announcement frame and Sensing NDP

Announcement frame encoding)). The STA Info field with AID*11* subfield equal to 2045 is always present in a Sensing NDP Announcement frame and it is transmitted as the first STA Info field. The STA Info field with AID*11* subfield equal to 2045 is not present in the Ranging NDP Announcement frame used for TB ranging measurement exchange but it is present in the non-TB ranging measurement exchange. (#1511, 1512, 1513)

***TGbf editor: please modify the following Table 9-42b in D1.0***

|  |  |  |
| --- | --- | --- |
| * Ranging NDP Announcement frame and Sensing NDP Announcement frame encoding | | |
| Presence of STA Info field with AID*11* subfield equal to 2045 | B31 in the STA Info field with AID*11* subfield equal to 2045 | NDP Announcement frame variant |
|
|
| N/A | N/A | Ranging NDP Announcement frame in TB ranging exchange |
| Yes | Reserved | Ranging NDP Announcement frame in non-TB ranging exchange |
| Yes | Set to 1 | Sensing NDP Announcement frame in TB sensing measurement instance |
| Yes | Set to 1 | Sensing NDP Announcement frame in non-TB sensing measurement instance |

(#1514)

***TGbf editor: please modify the following Table 9-45a in D1.0***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| * AID11 subfield encoding in an NDP Announcement frame | | | | | | |
| AID*11* subfield | Description | NDP Announcement frame variant applicability (see NOTE) | | | | |
| VHT | HE | EHT | Ranging | Sensing |
| 0 | STA Info field is addressed to the associated AP or mesh | Applicable | | | | |
| 1–2006 | STA Info field is addressed to an associated STA whose AID is equal to the value in the AID11 subfield if the NDP Announcement frame is not a Ranging or a Sensing variant.  STA Info field is addressed to an unassociated STA or an associated STA whose RSID/USID/AID is equal to the value in the RSID11/USID11/AID11 subfield if the NDP Announcement frame is a Ranging or a Sensing variant | Applicable | | | | |
| 2007 | Applicable | Applicable (subject to 35.15.1 (Basic EHT BSS operation)) | Not applicable | Applicable | Applicable |
| 2008–2042 | N/A | Not applicable | | | | |
| 2043 | STA Info field contains a sequence authentication code | Not applicable | Not applicable | Not applicable | Applicable | Not applicable |
| 2044 | STA Info field contains a partial TSF | Not applicable | Not applicable | Not applicable | Applicable | Applicable |
| 2045 | ~~STA Info field contains ranging the I2R NDP Tx Power and R2I NDP Target RSSI subfields if the NDP Announcement frame is a Ranging variant.~~  For Ranging NDP Announcement frame, it contains I2R NDP TX Power and R2I RSSI target. For Sensing NDP Announcement frame, it contains SI2SR TX power and the Measurement Setup ID. | Not applicable | Not applicable | Not applicable | Applicable | Applicable |
| 2046 | N/A | Not applicable | | | | |
| 2047 | STA Info field contains a disallowed subchannel bitmap | Not applicable | Applicable | Not applicable | Not applicable | Not applicable |
| NOTE—Not applicable means that the particular AID11 value is not used for that variant and is reserved. | | | | | | |

(#1519)

**References:**

**[1] 802.11bf D1.0**