IEEE P802.11  
Wireless LANs

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | CR for CIDs on NDPA frame format | | | | | | Date: 2022-08-29 | | | | | | Author(s): | | | | | | Name | Affiliation | Address | Phone | email | | Mahmoud Kamel | InterDigital |  |  | mahmoud.kamel@interdigital.com | | Zinan Lin | InterDigital |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |

Abstract

This submission proposes resolutions for 9 CIDs 10791, 12540, 12541, 12548-12552, and 13454 in subclause 9.3.1.19 in P802.11be D2.1.1:

NOTE – Set the Track Changes Viewing Option in the MS Word to “All Markup” to clearly see the proposed text edits.

**Revision History:**

R0: Initial version

R1: Editorial changes

R2: More editorial changes

# CID 10791

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 10791 | 9.3.1.19 | 138.32 | We don't need to allocate the 4bit for Nc in the STA info field of NDPA because the supported Max NSS is equal to 8. So, the bits for the Nc subfield should be changed with 3 bits. | Modify the assigned bits for the Nc index in figure 9-8a with 3bits. | Rejected  The TGbe decided not to support more than 8 SS with the format of all subfields related to spatial streams shall remain unchanged in SP#4 DCN 1238r1  “Do you agree that 802.11be shall not define operation with more than 8 spatial streams and that the format of all subfields related to spatial streams shall remain unchanged (i.e. no changing the number of bits)?"  The result in the PHY ad-hoc was 22Y, 4N, 5A |

# CID 12540

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 12540 | 9.3.1.19 | 136.03 | The text in the sentence "If the NDP Announcement frame contains only one STA Info field, then in the case of VHT or HE NDP Announcement frames the RA field is set to the address of the STA that can provide feedback ..." is confusing. Referring to the STA that can provide feedback does not necessarily referring to the only STA that has been addressed in the NDP Announcement frame. | Change the text to "If the NDP Announcement frame contains only one STA Info field, then in the case of VHT or HE NDP Announcement frames the RA field is set to the address of the STA addressed in the only STA Info field of this NDP Announcement frame ..." | Revised  TGbe editor: please incorporate changes shown in 11-22/1410r2 below. |

***TGbe Editor: Please modify Clause 9.3.1.19 11be D2.1.1 P138L59 as follows***

If the VHT/HE/Ranging NDP Announcement frame contains only one STA Info field, (#11993)then in the case of VHT, or HE or EHT NDP Announcement frames the RA field is set to the address of the STA addressed in the only STA Info field of this NDP Announcement frame(#12540).

# CID 12541

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 12541 | 9.3.1.19 | 139.08 | In Table 9-42b, some occurrences of "Ranging" starts with a capital letter and in other occurrences of "ranging" starts with a small letter. | Keep the use of the term "Ranging" consistent in all occurrences in this table. | Accepted |

***TGbe Editor: Please modify Clause 9.3.1.19 11be D2.1.1 P140L47 as follows***

**Table 9-42b—AID11 subfield encoding in an NDP Announcement frame *(contin-***

|  |  |  |
| --- | --- | --- |
| **AID subfield** | **Description** | **NDP Announcement frame variant applicability** |
| 2008–2042 | Reserved | Not applicable to any variant |
| 2043 | STA Info field contains a sequence authentication code if the NDP Announcement frame is a Ranging variant.  This AID11 value is reserved otherwise. | Applicable only to Ranging(#12541) variant |
| 2044 | STA Info field contains a partial TSF if the NDP Announcement frame is a Ranging variant.  This AID11 value is reserved otherwise. | Applicable only to Ranging(#12541) variant |
| 2045 | STA Info field contains Ranging(#12541) measurement parameters if the NDP Announcement frame is a Ranging variant.  This AID11 value is reserved otherwise. | Applicable only to Ranging(#12541) variant |
| 2046 | Reserved | Not applicable to any variant |
| 2047 | STA Info field contains a disallowed subchannel bitmap if the NDP Announcement frame is an HE variant.  This AID11 value is reserved otherwise. | Applicable only to HE variant |

# CIDs 12548 - 12552

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 12548 | 9.3.1.19 | 139.54 | "... the bandwidth of the EHT NDP Announcement frame ..." This expression is not correct, a MAC frame has no bandwidth. This sentence should refer to the PPDU carrying the EHT NDP Announcement frame as already stated in D2.0P139L64. | Change the sentence " ... the bandwidth of the EHT NDP Announcement frame ..." to " ... the bandwidth of the PPDU carrying the EHT NDP Announcement frame ..." | Accepted |
| 12549 | 9.3.1.19 | 139.57 | "... the bandwidth of the EHT NDP Announcement frame ..." This expression is not correct, a MAC frame has no bandwidth. This sentence should refer to the PPDU carrying the EHT NDP Announcement frame as already stated in D2.0P139L64. | Change the sentence " ... the bandwidth of the EHT NDP Announcement frame ..." to " ... the bandwidth of the PPDU carrying the EHT NDP Announcement frame ..." | Accepted |
| 12550 | 9.3.1.19 | 139.60 | "... the bandwidth of the EHT NDP Announcement frame ..." This expression is not correct, a MAC frame has no bandwidth. This sentence should refer to the PPDU carrying the EHT NDP Announcement frame as already stated in D2.0P139L64. | Change the sentence " ... the bandwidth of the EHT NDP Announcement frame ..." to " ... the bandwidth of the PPDU carrying the EHT NDP Announcement frame ..." | Accepted |
| 12551 | 9.3.1.19 | 140.40 | "... the bandwidth of the EHT NDP Announcement frame ..." This expression is not correct, a MAC frame has no bandwidth. This sentence should refer to the PPDU carrying the EHT NDP Announcement frame as already stated in D2.0P139L64. | Change the sentence " ... the bandwidth of the EHT NDP Announcement frame ..." to " ... the bandwidth of the PPDU carrying the EHT NDP Announcement frame ..." | Accepted |
| 12552 | 9.4.1.71 | 187.60 | "... the bandwidth of the EHT NDP Announcement frame ..." This expression is not correct, a MAC frame has no bandwidth. This sentence should refer to the PPDU carrying the EHT NDP Announcement frame as already stated in D2.0P139L64. | Change the sentence " ... the bandwidth of the EHT NDP Announcement frame ..." to " ... the bandwidth of the PPDU carrying the EHT NDP Announcement frame ..." | Accepted |

***TGbe Editor: Please modify Clause 9.3.1.19 11be D2.1.1 P141L54 as follows***

When the bandwidth of the PPDU carrying the EHT NDP Announcement frame(#12548) is less than 320 M, set the Resolution bit B0 to 0 to indicate a resolution of 20 MHz.

* When the bandwidth of the PPDU carrying the EHT NDP Announcement frame(#12549) is equal to 20 MHz, B1 is set to 1 to indicate the request of feedback on the 242-tone RU. B2–B8 are reserved and set to 0.
* When the bandwidth of the PPDU carrying the EHT NDP Announcement frame (#12550) is equal to 40 MHz, B1 and B2 indicate the request of feedback on each of the two 242-tone RUs from lower frequency to higher frequency. B3–B8 are reserved and set to 0.

***TGbe Editor: Please modify Clause 9.3.1.19 11be D2.1.1 P142L40 as follows***

**Table 9-42c—Settings for BW, Partial BW Info subfield in the EHT NDP Announcement frame**

|  |  |  |  |
| --- | --- | --- | --- |
| **Feedback RU or MRU size** | **Bandwidth of the PPDU carrying the EHT NDP Announcement frame(#12551) (MHz)** | **Partial BW Info subfield values in binary format (B0 B1 B2 B3 B4 B5 B6 B7 B8)** | **Operating channel width of the EHT beamformee (MHz)** |
| 242 | 20 | 010000000 | 20, 40, 80, 160, 320 |
| 40 | 010000000, 001000000 |
| 80 | 010000000, 001000000, 000100000, 000010000 | 20, 80, 160, 320 |
| 160 | 010000000, 001000000, 000100000, 000010000,  000001000, 000000100, 000000010, 000000001 |

**Table 9-42c—Settings for BW, Partial BW Info subfield in the EHT NDP Announcement frame *(continued)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Feedback RU or MRU size** | **Bandwidth of the PPDU carrying the EHT NDP Announcement frame(#12551) (MHz)** | **Partial BW Info subfield values in binary format (B0 B1 B2 B3 B4 B5 B6 B7 B8)** | **Operating channel width of the EHT beamformee (MHz)** |
| 484 | 40 | 011000000 | 40, 80, 160, 320 |
| 80 | 011000000, 000110000 | 80, 160, 320 |
| 160 | 011000000, 000110000, 000001100, 000000011 |
| 320 | 110000000, 101000000, 100100000, 100010000,  100001000, 100000100, 100000010, 100000001 |
| 484+242 | 80 | 011100000, 011010000, 010110000, 001110000 |
| 160 | 011100000, 011010000, 010110000, 001110000,  000001110, 000001101, 000001011, 000000111 |
| 996 | 80 | 011110000 |
| 160 | 011110000, 000001111 |
| 320 | 111000000, 100110000, 100001100, 100000011 |
| 996+484 | 160 | 011111100, 011110011, 011001111, 000111111 | 160, 320 |

***TGbe Editor: Please modify Clause 9.3.1.19 11be D2.1.1 P190L60 as follows***

The Partial BW Info subfield values are set according to the bandwidth of the PPDU carrying the EHT NDP Announcement frame(#12552)and the RU or MRU in which the feedback is solicited, see Table 9-42c (Settings for BW, Partial BW Info subfield in the EHT NDP Announcement frame).

# CID 13454

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 13454 | 9.3.1.19 | 138.20 | The Token is not needed for EHT sounding procedure since the feedback other than immediate feedback is not allowed and the retransmission of the feedback is not allowed | As in comment | Rejected  The Token field is used for backward compatibility to distinguish different variants of the NDPA frame. The first two bits of the Token field (B0 and B1) provides the NDP Announcement Variant. Accordingly, the Token field is still useful in EHT |