IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Some SAB1 CR v4 | | | | |
| Date: 2022-01-21 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Assaf Kasher | Qualcomm |  |  | akasher@qti.qualcomm.com |
|  |  |  |  |  |

Abstract

This document proposes resolution to the following SAB1 CIDs: 7003, 7062, 7222, 7224, 7225, 7226, 7302, 7229, 7243, 7258, 7275.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7003 | 41.01 | 1 |  | Review sentence and fix typo | with that -> that? | Accept |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7062 | 85.26 | 26 | 9.4.2.300 | Figure 9-788edq—AOA Results field format : the order of subfields could be re-arranged to align beter with byte and especially 32 bit (Dword) boundaries | Suggest the following order: AOA Azimuth(0:10) | Best AWV ID (11:21) | AoA Elevation (22:31) then AOA Azimuth Accuracy (32:38) | AoA Elevation Accuracy (39:45) | AOA Reference (46) | Rsvd (47) | **Revise:**  TGaz editor,  make changes specified in <https://mentor.ieee.org/802.11/dcn/22/11-22-0503-00-00az-Some-SAB1-CR-v4.docx> |

TGaz Editor: Replace figure 9-788edq- AOA Results field format with the following:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0 B10 | B11 B21 | B22 B31 | B32 B38 | B39 B45 | B46 | B47 |
|  | Best AWV ID | AOA Azimuth | AOA Elevation | AOA Azimuth Accuracy | AOA Elevation Accuracy | AOA Reference | Reserved |
| bits: | 11 | 11 | 10 | 7 | 7 | 1 | 1 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7222 | 45.14 | 14 | 9.3.1.19 | "If the AID11 subfield is less than 2008 …" Why not use the familiar number, 2007, which is the maximum number that can be assigned as an AID here? | Change it to read "If the AID11 subfield is equal to or less than 2007 …". Make similar change to the figure title for Figure 9-61da, i.e., change its title to "… when the AID11 subfield is equal to or less than 2007". | TGaz editor,  make changes specified in <https://mentor.ieee.org/802.11/dcn/22/11-22-0503-00-00az-Some-SAB1-CR-v4.docx> |

***TGaz editor: change the caption of figure 9-61da as follows:***

**Figure 9-61da—STA Info field format in a Ranging NDP Announcement frame when the**  **AID11 subfield is less than or equal to 2007 (#3222, #3010, #3882)**

***TGaz editor: change P46L5-6 (D4.1) as follows***

A Ranging NDP Announcement frame contains one STA Info field with AID11 subfield less than or equal 2007 per STA that is intended to receive this frame. (#**3222**, #**3011**, #**5102, #5158**)

***TGaz editor: change P46L14 (D4.1) as follows:***

If the AID11 subfield is less than or equal to 2007 (#**3222**), it identifies a STA that is intended to receive this

***TGaz editor: change P43L17-29 (D4.1) as follows (make sure first part is underline):***

The VHT/HE/Ranging NDP Announcement frame contains at least one STA Info field. If the VHT/HE/Ranging NDP Announcement frame contains only one STA Info field with AID/RSID less than or equal to 2007, 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 (see 10.37.5.2 (Rules for VHT sounding protocol sequences)), while in the case of Ranging NDP Announcement frames, the RA address is set to the address of the RSTA or ISTA that is the intended recipient of the frame.(#**7156**)~~The VHT/HE/Ranging NDP Announcement frame contains at least one STA Info field. If the VHT/HE/Ranging 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 (see 10.37.5.2 (Rules for VHT sounding protocol sequences)), while in the case of Ranging NDP Announcement frames, the RA address is set to the address of the RSTA or ISTA that is the intended recipient of the frame.~~ If the VHT/HE/Ranging NDP Announcement frame contains more than one STA Info field, then the RA field is set to the broadcast address.

***TGaz editor: change P45L19 (D4.1) as follows:***

than or equal to 2007 is defined in Figure [9-61da](#F09o61da) (STA Info field format in a Ranging NDP Announcement

***TGaz editor: change P180L18-25 (D4.1) as follows:***

* + - The NUM\_STS is set to the same value as the R2I N\_STS subfield in the STA Info field with AID11 subfield less than or equal to 2007 in the preceding Ranging NDP Announcement frame plus 1, when the HE Ranging NDP is transmitted to one ISTA. (#**7355**)
  + In the Non-TB ranging measurement exchange ([11.21.6.4.4](#H11o21o6o4o4)) and the non-TB ranging measurement exchange with secure LTF ([11.21.6.4.5.3](#H11o21o6o4o5o3)), set to the same value as the R2I N\_STS subfield in the STA Info field with AID11 subfield less than or equal to 2007 in the preceding Ranging NDP Announcement frame plus 1. (#**7355**)

***TGaz editor: change P181L35-38 (D4.1) as follows:***

* + - The LTF\_REP is set to the same value as the R2I Rep subfield in theSTA Info field with AID11 subfield less than or equal to 2007 in the preceding Ranging NDP Announcement frame plus 1 when the HE Ranging NDP is transmitted to one ISTA. (#**7355**)

***TGaz editor: change P182L1-4 (D4.1) as follows:***

* + In the non-TB ranging measurement exchange ([11.21.6.4.4](#H11o21o6o4o4)) and the non-TB ranging measurement exchange with secure LTF ([11.21.6.4.5.3](#H11o21o6o4o5o3)), set to the same value as the R2I Rep subfield in the STA Info field with AID11 subfield less than or equal to 2007 in the preceding Ranging NDP Announcement frame plus 1. (#**7355**)

***TGaz editor: change P183L7-12 (D4.1) as follows:***

* The NUM\_STS parameter is set to the same value as the I2R N\_STS subfield in the STA Info field with AID11 subfield less than or equal to 2007 in the preceding Ranging NDP Announcement frame plus 1. (#**7356**)
* The LTF\_REP parameter is set to the same value as the I2R Rep subfield with AID11 subfield less than or equal to 2007 in the STA Info field in the preceding Ranging NDP Announcement frame plus 1. (#**5435**, #**5452**, #**5376**, #**7356**)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7224 | 46.06 | 6 | 9.3.1.19 | In lines from 6 to 7, it says "… in Figure 9-61db (STA Info field format in a Ranging NDP 6 Announcement frame when the AID11 subfield is less than 2043)." The title of Figure 9-61dB in lines from 10 to 11 says "… if the AID11 10 subfield is 2043". Which title is correct? If the former is correct, it will cover the case when the AID11 subfield is equal to or less than 2007 case and wil overlap with Figure 9-61da, so that is odd. | Correct the description in lines from 6 to 7 to "… in Figure 9-61db (STA Info field format in a Ranging NDP 6 Announcement frame when the AID11 subfield is 2043)." | TGaz editor,  make changes specified in <https://mentor.ieee.org/802.11/dcn/22/11-22-0503-00-00az-Some-SAB1-CR-v4.docx> |
| 7225 |  |  | 9.3.1.19 | The Disambiguation subfield appears several times but the subfield itself is not explained anywhere in this subclause. From lines from 6 to 7 in page 46, it says it's defined the same with the one in Figure 9-61db but there is no description of that subfield for Figure 9-61db, either. I think this subfield needs to be described according to Figure 9-61da and then say for that subfield in Figure 9-61db that the definition is the same with the one in Figure 9-61da. Furthermore, the same subfield appears in Figure 9-61dc and Figure 9-61dd but not been mentioned at all. It should be explained that the Disambiguation subfield is defined the same with the one in the previous case. | Describe the Disambiguation subfield what it is from page 46, line 5. Describe that the Disambiguation subfield appearing in Figure 9-61db, dc, and dd is defined the same with the one for Figure 9-61da. | TGaz editor,  make changes specified in <https://mentor.ieee.org/802.11/dcn/22/11-22-0503-00-00az-Some-SAB1-CR-v4.docx> |

***TGaz Editor: change the text in P47L-58***

The Disambiguation subfield is set to 1 as in the STA Info field in an HE NDP Announcement frame regardless of the value of the AID11 subfield. (#**1102**, #**3192**, #**3848**)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7226 | 46.09 | 9 | 9.3.1.19 | What is "RSVD" in Figure 9-61db? As it is not described at all, it should meant to be "Reserved". | Change "RSVD" in Figure 9-61db to "Reserved". | Accept |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7302 | 83.29 | 29 | 9.4.2.298 | Incorrect reference | In the second row (Protocol Version 0) of Table 9-322h23fe, change "Sections 27.3.18a, 27.3.18b, 27.3.18c, 27.3.18d, 27.3.18e" to "27.3.18a" | Accept |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7229 | 117.35 | 35 | 11.10.10.2 | "A STA shall not send this type of request to an AP if the AP has set the DMG Location Supporting APs Information field to 0 in the Extended Capabilities element that the STA has received." The STA also should not sent this type of request if the AP does not have the DMG Location Supporting APs Information field in the Extended Capabilities element or if the AP does not transmit the Extended Capabilities element. | As in comment. | TGaz editor,  make changes specified in <https://mentor.ieee.org/802.11/dcn/22/11-22-0503-00-00az-Some-SAB1-CR-v4.docx> |

***TGaz Editor: change P118L23-24 as follows:***

(#**3532**) A STA shall not send this type of request to an AP if it has not received an Extended Capabilities element from the AP with the DMG Location Supporting APs Information field equal to 1.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7243 | 44.01 | 1 | Table 9-28d | The bit encoding for integer fields is well established in 802.11 and there is no need to call out the individual bit settings here. | Consolidate the two bit columns into a single integer value: 0, 1, 2, 3 | Accept  TGaz Editor: no need for changed, it has already been changed in D4.1 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7258 | 32.06 | 6 | 6.3.56.2.2 | "VendorSpecificinfo" should be "Vendor Specific" | Change "VendorSpecificinfo" to "Vendor Specific" in the last row of the table. Also see P32L24, | Revise:  TGaz Editor: in the two tables in P33 in D4.1 replace “VendorSpecificInfo” with “VendorSpecific” |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7275 | 125.27 | 27 | 11.21.6.2 | Contradicts with line 4? Specifically baseline of paragraph at line 4 | As in comment | TGaz editor,  make changes specified in <https://mentor.ieee.org/802.11/dcn/22/11-22-0503-00-00az-Some-SAB1-CR-v4.docx> |

***TGaz Editor: Change P125L4-7 as follows:***

A STA in which dot11FineTimingMsmtRespActivated is false shall set the Fine Timing Measurement Responder field of the Extended Capabilities element for non-DMG STA or the Fine Timing Measurement Responder subfield of the DMG Fine Timing and Range Measurement Capability Information field of the DMG Capabilities element for DMG STA to 0. (#**1295,** #**3163**)

**References:**