IEEE P802.11
Wireless LANs

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| CC40-Resolution of CIDs in clause 9.4.2 part 1 |
| Date: 2022-June-14 |
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|  |  |  |  |  |

Abstract

This document proposes resolution for CID 106, 67, 68, 84, 396, 86, 87, 73

**CID 396**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 396 | 9.4.2.323 | 43 | 9 | The symbol K is undefined | Define the symbol K | Revised Field changed to be “variable”. K is removed. |

**Discussion:**

The commenter is pointing out that symbol K needs to be defined in “Figure 9-1002bk—DMG Sensing Image Range Axis LUT element format”. When looking at the draft, it can be seen that same applies to “Figure 9-1002bl—DMG Sensing Image Doppler Axis LUT element format”.

The text following the figure is clear and doesn’t use the notation of “K”.

Hence, the suggested change is to replace the field size from “2•K” to “variable”.

**Resolution for CID 396: TGbf editor change 802.11bf D0.1 P.43 L.9 as follows:**



**Figure 9-1002bk—DMG Sensing Image Range Axis LUT element format**

**Resolution for CID 396: TGbf editor change 802.11bf D0.1 P.43 L.38 as follows:**



**Figure 9-1002bl—DMG Sensing Image Doppler Axis LUT element format**

**CID 86**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 86 | 9.4.2.325 | 44 | 60 | Unused codes in Table 9-401x should be marked as Reserved | Unused codes in Table 9-401x should be marked as Reserved | Accepted  |

**Discussion:**

The commenter is pointing that there are unused codes, and they should be marked as Reserved

****Existing spec text:

**Resolution for CID 86: TGbf editor change 802.11bf D0.1 P.44 L.53-60 as follows:**

**Table 9-401x—Report Delay field definition**

|  |  |
| --- | --- |
| **Value** | **Definition** |
| 0 | No report in this instance |
| 1 | One report in this instance |
| 2 | Report of more than one instance |
| 3 | Reserved |

**CID 84**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 84 | 9.4.2.322 | 40 | 39 | Unused codes in Table 9-401v should be marked as Reserved | Unused codes in Table 9-401v should be marked as Reserved | Accepted  |

**Discussion:**

The commenter is pointing that there are unused codes, and they should be marked as Reserved

Existing spec text:

**Resolution for CID 86: TGbf editor change 802.11bf D0.1 P.40 L.23-38 as follows:**

|  |  |
| --- | --- |
| **Value** | **Value Description** |
| 0 | No report |
| 1 | CSI |
| 2 | DMG Sensing Image Direction |
| 3 | DMG Sensing Image Range-Doppler |
| 4 | DMG Sensing Image Range-Direction |
| 5 | DMG Sensing Image Doppler-Direction |
| 6 | DMG Sensing Image Range-Doppler Direction |
| 7 | Target |
| Other | Reserved |

**CID 87**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 87 | 9.4.2.326.1 | 46 | 17 | Unused codes in Table 9-401y should be marked as Reserved | Unused codes in Table 9-401y should be marked as Reserved | Accepted  |

**Discussion:**

The commenter is pointing that there are unused codes, and they should be marked as Reserved

****Existing spec text:

**Resolution for CID 87: TGbf editor change 802.11bf D0.1 P.46 L.12-17 as follows:**

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| --- | --- |
| **DMG Sensing Report Type** | **Name** |
| 0 | DMG Sensing Image Report |
| 1 | DMG Sensing Targets Report |
| Other | Reserved |

**CID 73**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 73 | 9.4.2.327 | 54 | 43 | Unused codes in Table 9-401ab should be marked as Reserved | Unused codes in Table 9-401ab should be marked as Reserved | Accepted  |

**Discussion:**

The commenter is pointing that there are unused codes, and they should be marked as Reserved

 Existing spec text:

**Resolution for CID 87: TGbf edit** **or change 802.11bf D0.1 P.54 L.36-43 as follows:**

|  |  |
| --- | --- |
| **Value** | **Interpretation** |
| 0 | No report in the instance |
| 1 | One report in the instance |
| 2 | Report of more than one instance |
| Other | Reserved |

**CID 106**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 106 | 9.4.2.320 | 37 | 58 | The Azimuth Beamwidth is not limited to 180 degrees. It could be as wide as 360 degrees. | Change the definition of the Azimuth Beamwidth subfield in Figure 9-1002bb to 12 bits and change the definition text (Page 38 Line 7) to read"The Azimuth Beamwidth and Elevation Beamwidth subfields contain the beam 3 dB bandwidth in azimuth and elevation. The Azimuth Beamwidth subfield is specified in 360/4096 degree units. The Elevation Beamwidth subfield is specified in 180/256 degree units." | RevisedField changed to 9 bits. Bit removed from Beam Gain field |

**Discussion:**

The commenter is correct that Azimuth Beamwidth can be as large as 360deg, however that current resolution for the beamwith of 0.7deg (180/256) is sufficient.

Hence, we suggest to extend the Azimuth Beamwidth to 9 bith to cover the 360deg (as commenter pointed) and keep the existing resolution of 0.7deg (360/512).

The extra bit will be taken from the Beam Gain with can use just 7 bits.

**Resolution for CID 106: TGbf edit** **or change 802.11bf D0.1 P.37 L.57-63 as follows:**



**Resolution for CID 106: TGbf edit** **or change 802.11bf D0.1 P.38 L.7-8 as follows:**

The Azimuth Beamwidth and Elevation Beamwidth subfields contain the beam 3 dB bandwidth in azimuth in 360/512 degree units and bandwidth in elevation in 180/256 degree units.

**CID 67**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 67 | 9.4.2.319 | 38 | 11 | Add detail or example of the beam gain sub-filed | The text is quite clear, but to avoid any misinterpretation more details or example like filed value of '0' means 0dBi. This also can solve the issue of units since dB is a gain unit but not antenna gain were usually dBi is used. | RevisedText added. |

**Discussion:**

The commenter is asking to add the units and provide one example to avoid any misinterpretation.

**Resolution for CID 106: TGbf edit** **or change 802.11bf D0.1 P.38 L.11 as follows:**

The Beam Gain subfield contains the beam gain in 0.5dB units, where 0dBi is represented by a value of 0.

**CID 68**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Comment** | **Proposed Change** | **Resolution** |
| 68 | 9.4.2.322 | 39 | 45 | Add a spare bit to "Sensing Type" | Extend "Sensing Type" Subfield to 3 bits to have some room for future options, on the expense of one reserved bit | RevisedField extended to 3 bits and an additional case added |

**Discussion:**

The commenter is asking to add one spare bit to the "Sensing Type" Subfield.

In addition, after consulting with Assaf, there is a need to add also an index for “Coordinated bistatic”

**Resolution for CID 68: TGbf edit** **or change 802.11bf D0.1 P.39 L.40-46 as follows:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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| --- | --- | --- | --- | --- | --- |
|  | B0 B2 | B3 | B4 | B5 | B6 B7 |
|  | SensingType | RXInitiator | LCIPresent | OrientationPresent | Reserved |
| bits: | 3 | 1 | 1 | 1 | 2 |

**Figure 9-1002bf—Measurement Setup Control field format**

**Resolution for CID 68: TGbf edit** **or change 802.11bf D0.1 P.39 L.57-65 as follows:**

**Table 9-401u—Sensing Type subfield definition**

|  |  |
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| --- | --- |
| **Value** | **Description** |
| 0 | Coordinated monostatic |
| 1 | Coordinated bistatic |
| 2 | Bistatic |
| 3 | Multistatic |
| Other | Reserved |

**References:**

**[1] Draft P802.11bf\_D0.1**