IEEE P802.11  
Wireless LANs

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| LB276 CR for DMG Sensing Report etc | | | | |
| Date: 2023-10-16 | | | | |
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|  |  |  |  |  |

Abstract

This submission proposes resolutions for CID 3115, 3116, 3117, 3119, 3120, 3233, 3234, 3507, 3513, 3518, 3519, 3520, 3521 received for TGbf LB276

Revisions:

- Rev 0: Initial version of the document.

- Rev 1: Add CID3117.

- Rev 2:

- Rev 3:

TGbf editor: The baseline for this document is basically 11bf D2.0

**Part1:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 3115 | Alecsander Eitan | 95.44 | The section "The DMG Sensing Report field contains one or more subelements. The subelements that can be included  are: DMG Sensing Report Header subelement (9.4.2.330.2 (DMG Sensing Report Header subelement)), DMG Sensing Image Report Data subelement (9.4.2.330.3 (DMG Sensing Image Report Data subelement)), and DMG Sensing Targets Report Data subelement (9.4.2.330.4 (DMG Sensing Targets Report Data subelement))." looks redundant since it is very similar to the following section (lines: 55-59). No point to repeat the information.. | Remove the section or merge with following section | Revised.  Part of the section beginning from P95L54-60 which explains about DMG Sensing Measuremrnt Report is redundant. Because similar description is found in a section beggning from P96L24.  See proposed text in <DCN1816r1>. |

*CID3115:*

*TGbf Editor: Please modify description beginning from P95L47 as follows, remove a whole section beginning from P95L54 and move part of the section (beginning from P95L54) in green color to P96L35. The baseline for this document is 11bf D2.0*

The DMG Sensing Report field contains one or more subelements. The subelements that can be included

are: DMG Sensing Report Header subelement (9.4.2.330.2 (DMG Sensing Report Header subelement)),

DMG Sensing Image Report Data subelement (9.4.2.330.3 (DMG Sensing Image Report Data subelement)),

and DMG Sensing Targets Report Data subelement (9.4.2.330.4 (DMG Sensing Targets Report Data subelement)).

~~A DMG Sensing Measurement Report frame (9.6.21.10 (DMG Sensing Measurement Report frame format))~~

~~includes one or more DMG Sensing Report elements containing one DMG Sensing Report Header subelement~~

~~(9.4.2.330.2 (DMG Sensing Report Header subelement)), and one or more DMG Sensing Image~~

~~Report Data subelements (9.4.2.330.3 (DMG Sensing Image Report Data subelement)) or one or more DMG~~

~~Sensing Targets Report Data subelements (9.4.2.330.4 (DMG Sensing Targets Report Data subelement))~~.

(omit)

The DMG Sensing Report Header subelement contains sensing receiver location information. The DMG

Sensing Report Header subelement field format is defined in 9.4.2.330.2 (DMG Sensing Report Header subelement).

The DMG Sensing Image Report Data subelement contains measurements reported. The DMG Sensing

Image Report Data subelement field format is defined in 9.4.2.330.3 (DMG Sensing Image Report Data subelement).

Multiple DMG Sensing Image Report Data subelements may be present in a DMG Sensing Report

element if the sensing image report information is longer than 255 octets.

The DMG Sensing Targets Report Data subelement contains the reported targets. The DMG Sensing Targets

Report Data subelement field format is defined in 9.4.2.330.4 (DMG Sensing Targets Report Data subelement).

Multiple DMG Sensing Targets Report Data subelements may be present in a DMG Sensing

Report element if the sensing targets report information is longer than 255 octets.

A DMG Sensing Measurement Report frame (9.6.21.10 (DMG Sensing Measurement Report frame format))

includes one or more DMG Sensing Report elements.

**Part2:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 3116 | Alecsander Eitan | 97.62 | In section "The AoA field indicates an AoA measurement result done by the sensing receiver relative to the sensing transmitter. The AoA field is defined in Figure 9-788edq (AOA Results field format)." the text refers to Figure 9-788edq (in 11az).  The reference indeed has all the fields needed, but it also has "Best AWV ID" (11bits) which is not relevant for sensing. Suggest to specify that this field is reserved. | At the end of the sentence add: "The Best AWV ID field in AOA Results field is reserved." | Accepted. |

**Part3:**

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| 3117 | Alecsander Eitan | 99.40 | The text from page 99 line 40 till page 100 line 44 is not clear. In the past it was upto 4 exis but the addition of the 5th axis caused the text to be unclear, since some combinations are not clear if they are valid or not.  E.g. can the 4 axis be [range, doppler, receive beam index and receive azimuth] ?! | Suggest to revise the text to kake it clear. One may consider a table for each of the 2, 3 4 or 5 axis with valid options. | Revised.  See proposed text below <DCN1816r1>. |

**Discussion:**

Commenter’s intention is that (1) when “Receiver Beam Index” is used then “Receive Azimuth” and “Receive Elevation” should not be used and when “Receive Azimuth” and/or “Receive Elevation” is/are used then “Receiver Beam Index” should not be used, (2) remove Note at P100L43 after incorporating resolution to “(1)”

However, description to restrict exclusive use of {"Receiver Beam index"} and {"Receive Azimuth" and /or "Receive Elevation"} is already found in P99L13-16 in D2.0, so no additional change will be required. And keep Note at P100L43 as it is, as informative.

But slight correction below is needed.

*CID3117:*

*TGbf Editor: Please modify P99L40 as follows: The baseline for this document is 11bf D2.0*

The Reflection Fields field contains multiple Reflection fields. All Reflection fields within a Reflection

Fields field have the same format, which can be derived from the Axis Present field. There are ~~3~~ 4 format

options for 2 axes (Figure 9-1002cm (Reflection field format for 2 axes)), 3 axes (Figure 9-1002cn (Reflection

field format for 3 axes)), 4 axes (Figure 9-1002co (Reflection field format for 4 axes)), and 5 axes

(Figure 9-1002cp (Reflection field format for 5 axes)). The number of bits allocated for each axis is fixed

and given by the axis type.

**Part4:**

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| 3119 | Alecsander Eitan | 108.50 | Field name is written "DMG Mandatory Number Of Responders" and "DMG Mandatory Number of Responders". | Unify the capitalization | Revised.  Follow the specification “For proper names, all words in the name (excluding acronyms) should be capitalized, including prepositions and conjunctions” in editorial style guide (09/1034 r20, 2.6 Capitalization)  And word “DMG” is missing in some field name in a section beginning from P108L40 and P108L58, it should be corrected.  See proposed resolution in <DCN1816r1>. |
| 3120 | Alecsander Eitan | 108.63 | Field name is written "DMG Number Of Preferred Responders" and "DMG Number of Preferred Responders". | Unify the capitalization | Revised.  Follow the specification “For proper names, all words in the name (excluding acronyms) should be capitalized, including prepositions and conjunctions” in editorial style guide (09/1034 r20, 2.6 Capitalization)  And word “DMG” is missing in some field name in a section beginning from P108L40 and P108L58, it should be corrected.  See proposed resolution in <DCN1816r1>. |

*CID3119, CID3120:*

*TGbf Editor: Please modify Figure 9-1002db in P108L5 as follows: The baseline for this document is 11bf D2.0*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | B0 | B1 | B2            B5 | B6 | B7          B10 |
|  | DMG SBP Request | Sensing Responder | DMG Number ~~of~~ Of Sensing Responders | DMG Mandatory Number ~~of~~ Of Responders | DMG Number ~~of~~ Of Preferred Responders |
| Bits: | 1 | 1 | 4 | 1 | 4 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | B11 | B12 | B13     B15 |
|  | DMG Preferred Responder List | DMG Mandatory Preferred Responder | Reserved |
| Bits: | 1 | 1 | 3 |
| * DMG SBP Parameters Control field format | | | |

*TGbf Editor: Please modify P108L40 as follows: The baseline for this document is 11bf D2.0*

If the DMG SBP Request field is set to 1, the value of the DMG Number Of Sensing Responders field indicates

the number of sensing responders to participate in the DMG sensing procedure initiated by the SBP

responder in response to the DMG SBP request. If the Sensing Responder field is set to 1, the value indicated

in the DMG Number ~~of~~ Of Sensing Responders field includes the SBP initiator.

*TGbf Editor: Please modify P108L58 as follows: The baseline for this document is 11bf D2.0*

If the DMG Mandatory Preferred Responder field is set to 1, the DMG Number ~~of~~ Of Sensing Responders and DMG Mandatory Number ~~of~~ Of Responders fields are reserved

**Part5:**

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| 3233 | Assaf Kasher | 100.28 | In table 9-401ac the S5 number of bits is missing | Add S5 to the list. | Revised.  Commenter’s intention is to add “S5” after “S4”  See proposed resolution in <DCN1816r1>. |

*CID3233:*

*TGbf Editor: Please modify P100L28 as follows: The baseline for this document is 11bf D2.0*

|  |  |
| --- | --- |
| * Order of the axis and allocated bits in a Reflection field | |
| Axis | Allocated Bits (S1, S2, S3, S4, S5) |
| Range | 16 |
| Doppler | 10 |
| Receiver Beam Index | 12 |
| Transmitter Beam Index | 12 |
| Receive Azimuth | 12 |
| Receive Elevation | 12 |

**Part6:**

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| --- | --- | --- | --- | --- | --- |
| 3234 | Assaf Kasher | 108.42 | "number of sensing responders to participate" - langauge. | replace with "number of sensign responders requested for participation" | Revised.  Basically accepted. But proposed change from commenter has typo, need to correct it.  See proposed text in <DCN1816r1>. |

*CID3234:*

*TGbf Editor: Please modify description beginning from P108L41 as follows: The baseline for this document is 11bf D2.0*

If the DMG SBP Request field is set to 1, the value of the DMG Number Of Sensing Responders field indicates

the number of sensing responders ~~to participate~~ requested for participation in the DMG sensing procedure initiated by the SBP responder in response to the DMG SBP request. If the Sensing Responder field is set to 1, the value indicated

in the Number of Sensing Responders field includes the SBP initiator.

**Part7:**

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| --- | --- | --- | --- | --- | --- |
| 3507 | Rui Du | 102.33 | The name of Figure 9-1002cs is "Target field format", but the name of the corresponding field in Figure 9-1002cq is 'Target Parameters'. Modify either of them to achieve consistency. | As in comments. | Revised.  Change figure title as commenter pointed out. P102 L16 is also affected.  See proposed text in <DCN1816r1>. |

*CID3507:*

*TGbf Editor: Please modify P102L16 as follows: The baseline for this document is 11bf D2.0*

The Target Parameters field contains one or multiple Target fields as defined in Figure 9-1002cs (Target Parameters field format).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Target Index | Range | Range Span | Azimuth | Azimuth Span | Elevation |
| Bits: | 8 | 0 or 16 | 0 or 6 | 0 or 11 | 0 or 5 | 0 or 10 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Elevation Span | Radial Velocity | Azimuth Velocity | Elevation Velocity | Power |
| Bits: | 0 or 5 | 0 or 12 | 0 or 12 | 0 or 12 | 8 |
| * Target Parameters field format | | | | | |

**Part8:**

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| 3518 | Rui Du | 107.52 | In Figure 9-1002da-DMG SBP Parameters element format, the length of Sensing Responder Addresses field shall be 0 or nx6. The Length of Sensing Responder IDs shall be variable. | As in comments. | Revised.  Basically accepted but it needs further change for Sensing Responder IDs.  See proposed text in <DCN1816r1>. |

**Discussion:**

It is possible there is no Sensing Responder Addresses field according to descripition in P109L9-L16 of D2.0. So length of Sensing Responder Addresses field should be “0 or n x 6”

And it is possible there is no Sensing Responder IDs field according to description in P109L42-45 of D2.0. Additionally Sensing Responder IDs field is composed of *n* (value in the DMG Number of Sensing Responders field) of AID/USIDs and Padding field, each of AID/USIDs has 12bits. So length of Sensing Responder IDs field should be “0 or variable”.

*CID3518:*

*TGbf Editor: Please modify Figure 9-1002da as follows: The baseline for this document is 11bf D2.0*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Element ID | Length | Element ID Extension | DMG SBP Parameters Control | Sensing Responder Addresses | Sensing Responder IDs |
| Octets: | 1 | 1 | 1 | 2 | 0 or | 0 or variable |
| * DMG SBP Parameters element format | | | | | | |

**Part9:**

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| --- | --- | --- | --- | --- | --- |
| 3513 | Rui Du | 94.60 | The USID in Figure 9-1002cg and corresponding description shall be removed. | As in comments. | Accepted |
| 3519 | Rui Du | 109.42 | USID shall be removed, since Unassociated station is not considered in 11bf DMG sensing. | As in comments. | Accepted. |
| 3520 | Rui Du | 109.47 | USIDs shall be removed, since Unassociated station is not considered in 11bf DMG sensing. | As in comments. | Accepted. |
| 3521 | Rui Du | 191.61 | USIDs shall be removed, since Unassociated station is not considered in 11bf DMG sensing. | As in comments. | Accepted. |

**SP**

Do you agree to the resolution provided for following CIDs 3115, 3116, 3117, 3119, 3120, 3233, 3234, 3507, 3513, 3518, 3519, 3520, 3521 to be included in the latest 11bf Draft?