IEEE P802.11
Wireless LANs

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| LB272-DMG-CIDs-set2 |
| Date: 2023-05-02 |
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Abstract

This document proposes resolution to several LB272 CIDs: 1322, 1420 and 2178.

The changes are relative to IEEE P802.11-REVme/D1.0, December 2021

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| **CID** | **Section** | **Page****Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1322 | 9.3.1.25.5 | P83L17 | The fields starting with EDMG are specific to DMG, and there is no istructions what a DMG STA shall do. Furthermore, the last sentence says that this field is reserved only when not Coordinated Monostatic. | Edit the test to provide meanfull instructions for DMG case and comment that other fields are reserved. | **Revised**: changes are already in:https://mentor.ieee.org/802.11/dcn/23/11-23-0412-01-00bf-lb272-dmg-cids-v1.docx |

**Discussion:**

The commenter is pointing to the fact that only EDMG fields are detailed, and it is not clear what a DMG STA shall do.

The text in this section was fixed based on submission 23/0412/r1, which was approved in Motion 268.

The change makes clear that these fields don’t apply in Coordinated Monostatic or Coordinated Bistatic, which also means that the fields are used only in Multistatic case, and we already know that only EDMG STAs can be part of Multistatic measurement.

The bottom line is that this CID is revised, with the solution specified in 23/0412/r1

**Existing text in Draft 1.0**

The EDMG TRN Length, RX TRN-Units per Each TX TRN-Unit, EDMG TRN-Unit P, EDMG TRN-Unit M, EDMG TRN-Unit N, TRN Subfield Sequence Length, BW, Sense Multiple Golays, and Sense Golay Index subfields contain the values of the corresponding header fields in the EDMG multistatic sensing PPDU. These subfields are reserved when the Sensing Type is set to Coordinated Monostatic.

**Modification approved based on 23/0412/r1**

***TGbf Editor: Change the text in P83L14-18 as follows:***

The EDMG TRN Length, RX TRN-Units per Each TX TRN-Unit, EDMG TRN-Unit P, EDMG TRN-Unit M, EDMG TRN-Unit N, TRN Subfield Sequence Length, BW, Sense Multiple Golays, and Sense Golay Index subfields contain the values of the corresponding header fields in the EDMG multistatic sensing PPDU. These subfields are reserved when the Sensing Type is set to Coordinated Monostatic or Coordinated Bistatic.

No additional editorial change is needed.

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| **CID** | **Section** | **Page****Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1420 | 6.3.138.6.2 | P55L18 | "The LCI and the Peer orientation fields in the element are reserved". What does "reserved" mean here? For example, what is the transmitter supposed to do? | Clarify. | **Revised**: TGbf Editor make changes as in:https://mentor.ieee.org/802.11/dcn/23/11-23-0684-00-00bf-lb272-dmg-cids-set2.docx |

**Discussion:**

The commenter is pointing that the “reserved” meaning in this chapter is not clear.

By looking at other similar cases in REVme it is clear that a different format is used.

## *TGbf Editor: Please modify the text at P55L4-23 in subclause 6.3.138.6.2 in D1.0 as follows.*

The primitive parameters are as follows:

 MLME-DMG-SENSMSMTSTART.request(

DMG Measurement Setup ID,

Sensing Type,

RX Initiator,

LCI Present,

Orientation Present,

Multiple Golays,

Report Type,

LCI,

Peer Orientation,

TX Beam List,

RX Beam List,

DMG Sensing Scheduling,

Burst Response Delay,

PeerSTAAddress List

)

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| Name | Description |
| DMG Measurement Setup ID | DMG Measurement Setup ID the instances belong to |
|  |  |
| Sensing Type | As defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| RX Initiator | As defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| LCI Present | As defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| Orientation Present | As defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| Multiple Golays | As defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| Report Type | As defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| LCI | Optionally present if LCI Present is true. As defined in 9.4.2.325 (DMG Sensing Measurement Setup element). |
| Peer Orientation | Optionally present if Orientation Present is true. As defined in 9.4.2.325 (DMG Sensing Measurement Setup element). |
| TX Beam List | Optional element as defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| RX Beam List | Optional element as defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| DMG Sensing Scheduling | Optional element as defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| Burst Response Delay | Optional element as defined in 9.4.2.325 (DMG Sensing Measurement Setup element) |
| PeerSTAAddress List | Addresses of the sensing responders that passed the setup indicated bythe DMG Measurement Setup ID to be used in the DMG sensing instances. |

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| **CID** | **Section** | **Page****Line** | **Comment** | **Proposed Change** | **Resolution** |
| 2178 | 9.4.2.325 | P122L10-22 | During DMG sensing measurement setup, sensing initiator can provide its own LCI and peer orientation to the sensing responder in the setup request frame. But the sensing responder do not provide its LCI and orientation to sensing initiator (if the setup is successful, setup response frame does not include DMG sensing measurement setup element). Sensing initiator should be able to request the sensing resonder to provide the responder's LCI and peer orientation for understanding sensing results. | As in the comment | **Revised**TGbf Editor make changes as in:https://mentor.ieee.org/802.11/dcn/23/11-23-0684-00-00bf-lb272-dmg-cids-set2.docx |

**Discussion:**

The commenter is pointing that Responder LCI and Peer Orientation are missing from DMG sensing measurement setup when setup is successful, and they are needed for understanding sensing results.

Although the commenter is correct that “Responder LCI and Peer Orientation are missing from DMG sensing measurement setup when setup is successful” and that “Responder LCI and Peer Orientation are needed for understanding sensing results”, there is no need nor correct to use the Responder LCI and Peer Orientation for understanding sensing results.

First, the Responder LCI and Peer Orientation are already included in the 9.4.2.329 DMG Sensing Report element in the 9.4.2.329.2 DMG Sensing Report Header.

Second, if the responder moves (location or orientation) from setup to measurement, then Responder LCI and Peer Orientation shall be recorded at each measurement and not only at the setup.

Inspite of the above, there is at least one case where LCI and/or Peer Orientation is needed but not present. This case is when bistatic sensing is used and the initiator is the receiver. In this case the responder is not sending any report since the initiator is the receiver, but the initiator (receiver) does need to know where the responder (transmitter) is located.

This need can be solved using the existing frames and methods that are already included in FTM (11az).

To clarify the above, we suggest adding the following to 11.55.3.5 (DMG sensing burst).

We don’t add a note about the bistatic case mentioned above to avoid any implied limiting.

## *TGbf Editor: Please add the text at P203L54 in subclause 11.55.3.5 in D1.0 as follows.*

The sensing initiator and sensing responder may perform an FTM procedure (see 11.21.6.4 ((FTM) Measurement exchange) to obtain the distance between them and their relative orientation per each DMG sensing burst.

Straw Poll:

Do you agree with the proposed resolutions in revision 0 of this document?

Y/N/A