IEEE P802.11
Wireless LANs

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| Initial SA ballot comments – DMG comments Part 3 |
| Date: 2024-08-02 |
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**Abstract**

This document proposes the resolutions to the following “DMG” CIDs:

6179, 6201, 6193, 6194, 6195, 6192, 6150 (7 in total)

R0: initial version on Aug 2, 2024.

R1: revised version on Aug 6, 2024. Changed resolution to 6192.

# ****6179****

|  |  |  |  |  |  |
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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 6179 | 9.3.3.8 | 47.59 | It seams that part of the Notes in the DMG Sensing Capabilities and DMG Sensing Beam Descriptor elements in Table 9-67 have been misplaced. | Please fix the Notes as follow:1. DMG Sesning Capabilities: The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is optionally present if dot11DMGSensingMsmtImplemented is true. Otherwise, the element is not present.2 DMG Sensing Beam Descriptor:The element is defined in 9.4.2.333 (DMG Sensing Beam Descriptor element) and is optionally present if dot11DMGSensingMsmtImplemented is true. Two DMG Sensing Beam Descriptor elements may be present, one for TX beams and one for RX beams. If dot11DMGSensingMsmtImplemented is false, the element is not present. | Revised. Agree with the commenter. Commenter’s proposed change is adopted with some editorial change. Please refer to the modifications labelled with #6179 in DCN 24/1127r1: <https://mentor.ieee.org/802.11/dcn/24/11-24-1127-01-00bf-initial-sa-ballot-comments-dmg-comments-part-1.docx> |

**Modifications (#6179):**

***To TGbf editor: Please modify Table 9-67 as follows.***

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| <Last assigned + 1> | … | … |
| <Last assigned + 2> | DMG Sensing Capabilities  | The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is optionally present if dot11DMGSensingMsmtImplemented is true. Otherwise (#6179), the element is not present. |
| <Last assigned + 3> | DMG Sensing Beam Descriptor  | The element is defined in 9.4.2.333 (DMG Sensing Beam Descriptor element) and is optionally present if dot11DMGSensingMsmtImplemented is true. Two DMG Sensing Beam Descriptor elements may be present, one for TX beams and one for RX beams. If dot11DMGSensingMsmtImplemented is false, (#6179) the element is not present. |
| <Last assigned + 4> | … | … |

# ****6201****

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 6201 | 9.3.3 | 0.00 | In 11.55.3.3, it says "A sensing capable DMG STA shall include the DMG Sensing Capabilities element (see 9.4.2.332 (DMG Sensing Capabilities element)) in probe and association frames." However, in 9.3.3, the frames which have the DMG Sensing Capabilities element have notes saying "The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is optionally present if dot11DMGSensingMsmtImplemented is true. Otherwise, the element is not present." for this element. There is a contradiction with the description in 11.55.3.3 and the ones in 9.3.3. Make them consistent. | Change the notes "The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is optionally present if dot11DMGSensingMsmtImplemented is true." where it appears for the DMG Sensing Capabilities element under 9.3.3 to "The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and present if dot11DMGSensingMsmtImplemented is true." | Revised. Agree with the commenter.Please refer to the modifications labelled with #6201 in DCN 24/1127r1: <https://mentor.ieee.org/802.11/dcn/24/11-24-1127-01-00bf-initial-sa-ballot-comments-dmg-comments-part-1.docx> |



**Modifications (#6201):**

***To TGbf editor: Please modify Table 9-64 as follows.***

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| <Last assigned + 1> | … | … |
| <Last assigned + 2> | DMG Sensing Capabilities | The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is (#6201) present if dot11DMGSensingMsmtImplemented is true. Otherwise, the element is not present |

***To TGbf editor: Please modify Table 9-65 as follows.***

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| <Last assigned + 1> | … | … |
| <Last assigned + 2> | DMG Sensing Capabilities | The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is (#6201) present if dot11DMGSensingMsmtImplemented is true. Otherwise, the element is not present |

***To TGbf editor: Please modify Table 9-66 as follows.***

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| <Last assigned + 1> | … | … |
| <Last assigned + 2> | DMG Sensing Capabilities | The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is (#6201) present if dot11DMGSensingMsmtImplemented is true. Otherwise, the element is not present |

***To TGbf editor: Please modify Table 9-67 as follows.***

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| <Last assigned + 1> | … | … |
| <Last assigned + 2> | DMG Sensing Capabilities | he element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is (#6201)present if dot11DMGSensingMsmtImplemented is true. Otherwise (#6179), the element is not present. |

***To TGbf editor: Please modify Table 9-68 as follows.***

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| <Last assigned + 1> | … | … |
| <Last assigned + 2> | DMG Sensing Capabilities | The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is (#6201) present if dot11DMGSensingMsmtImplemented is true. Otherwise, the element is not present |

***To TGbf editor: Please modify Table 9-69 as follows.***

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| <Last assigned + 1> | … | … |
| <Last assigned + 2> | DMG Sensing Capabilities | The element is defined in 9.4.2.332 (DMG Sensing Capabilities element) and is (#6201) present if dot11DMGSensingMsmtImplemented is true. Otherwise, the element is not present |

# ****6193, 6194, 6195****

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 6193 | 11.55.3.5 | 184.06 | exchange) to obtain the distance and relative orientation between both STAs for each DMG sensing burst.The adjective "both" may be ambiguous | exchange) to obtain the distance and relative orientation between the STAs for each DMG sensing burst. | Revised. Please refer to the modifications labelled with #6193 in DCN 24/1127r1: <https://mentor.ieee.org/802.11/dcn/24/11-24-1127-01-00bf-initial-sa-ballot-comments-dmg-comments-part-1.docx> |
| 6194 | 11.55.4.2 | 201.29 | element of the DMG SBP Response frame is set to 1, both Sensing Responder Addresses and Sensing Responder IDs field shall be included in the frame.The "both" adjective may be ambiguous | element of the DMG SBP Response frame is set to 1, the Sensing Responder Addresses and Sensing Responder IDs field shall be included in the frame. | Revised. Please refer to the modifications labelled with #6194 in DCN 24/1127r1: <https://mentor.ieee.org/802.11/dcn/24/11-24-1127-01-00bf-initial-sa-ballot-comments-dmg-comments-part-1.docx> |
| 6195 | 11.55.4.2 | 199.35 | are not in use and shall be set to the reserved values.do not see "reserved values" defined. | are not in use and shall be set to reserved values. | Revised. Please refer to the modifications labelled with #6195 in DCN 24/1127r1: <https://mentor.ieee.org/802.11/dcn/24/11-24-1127-01-00bf-initial-sa-ballot-comments-dmg-comments-part-1.docx> |

**Modifications (#6193):**

***To TGbf editor: Please modify P184L06 as follows.***

The sensing initiator and sensing responder may perform an FTM procedure (see 11.21.6.4 (Measurement exchange) to obtain the distance and relative orientation between the (#6193) STAs for each DMG sensing burst.

**Modifications (#6194):**

***To TGbf editor: Please modify P201L29 as follows.***

If the DMG Preferred Responder List field within the DMG SBP Parameters element of the DMG SBP Response frame is set to 1, both the Sensing Responder Addresses field (#6194) and the Sensing Responder IDs field shall be included in the frame.

**Modifications (#6195):**

***To TGbf editor: Please modify P199L35 as follows.***

The fields RX Initiator, LCI Present, and Orientation Present in the Measurement Session Control field of the DMG Sensing Measurement Session element are not in use and shall be set to reserved values. (#6195)

# ****6192****

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 6192 | 11.55.3.3 | 178.19 | Very ambiguous, and not aligned with next normative clause:Monostatic or coordinated monostatic shall be capable to take the roles of both sensing transmitter and sensing receiver.The adjective "both" in this statement is very confusing, especially as one read the next (normative) line. | Monostatic or coordinated monostatic shall be capable to take the roles of sensing transmitter and/or sensing receiver.and ?or ???? | Revised.Please refer to the modifications labelled with #6192 in DCN 24/1127r1: <https://mentor.ieee.org/802.11/dcn/24/11-24-1127-01-00bf-initial-sa-ballot-comments-dmg-comments-part-1.docx> |

**Discussions:**

The commenter thinks that “the roles of both sensing transmitter and sensing receiver” in the first bullet point and “the sensing transmitter and/or sensing receiver role” in the second bullet point are causing confusion. I agree with the commenter.

* The former means a sensing responder for (coordinated) monostatic shall support two roles: sensing transmitter role, and sensing receiver role.
* The latter means a sensing responder for (coordinated) bistatic shall support three roles: sensing transmitter role, sensing receiver role, and sensing transmitter and sensing receiver role.

Although “the roles of both sensing transmitter and sensing receiver” and “the sensing transmitter and sensing receiver role” lead to the same effect, they also cause different technical understandings. The support of “the sensing transmitter and sensing receiver role” is reflected by setting both the DMG Bistatic RX field and the DMG Bistatic TX field to 1 in the DMG Sensing Capabilities element. So, we do not have a separate capability for “the sensing transmitter and sensing receiver role”.

Therefore, the second bullet point is not precise, which should be corrected.

**Modifications (#6192):**

***To TGbf editor: Please modify P178L8 as follows.***

A sensing initiator of the DMG sensing types:

— Monostatic or coordinated monostatic shall be capable to take the roles of both sensing transmitter and sensing receiver, or neither of them.

— Bistatic or coordinated bistatic shall be capable of the sensing transmitter role, the sensing receiver role, or both of them.(#6192)

— Multistatic shall be capable of the sensing transmitter role.

A sensing responder of the DMG sensing types:

— Monostatic or coordinated monostatic shall be capable to take the roles of both sensing transmitter and sensing receiver.

— Bistatic or coordinated bistatic shall be capable of the sensing transmitter role, the sensing receiver role, or both of them. (#6192)

— Multistatic shall be capable of the sensing receiver role.

# ****6150****

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 6150 | 11.55.3.5 | 182.49 | In parallel coordinated monostatice sensing, First Beam Index is randomized among exchanges, so it is not the same among all exchanges. Unlike other fields in the list that are the same among all DMG sensing exchanges, the setting of First Beam Index has exceptions. [ng] | Please add "unless specified otherwise" before the colon. | Rejected. For parallel coordinated monostatic sensing, the First Beam Index field is randomized per DMG sensing measurement session, not per DMG sensing measurement exchange. So, the original text in 11bf spec is correct. No change is needed.  |

SP:

Do you agree to the resolutions provided for CIDs 6179, 6201, 6193, 6194, 6195, 6192, 6150 in 24/1127r1 to be included in the latest 11bf Draft?

Y/N/A