IEEE P802.11
Wireless LANs

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| LB276 resolutions on primitive-related comments – Part 5 |
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**Abstract**

This document proposes the comment resolution for CID 3439, 3500, 3023, 3495, 3496.

R0: initial version on Sept 27, 2023.

R1: revised version on Oct 24, 2023. Remove CID 3500 for further discussions.

R2: revised version on Oct 26, 2023. Provide CR for CID 3500.

# 3439

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| **CID** | **Clause**  | **Page** | **Comment** | **Proposed change** | **Propose resolution** |
| 3439 | 11.55.4.1 | 189.02 | Replace "dot11DMGSBPProcedureExpiry" with "aDMGSBPProcedureExpiry" | As in comment | **REVISED**. Agree with the commenter. The page number should be Page 189.25, not 189.02.Please refer to the changes labelled with #3439 in <https://mentor.ieee.org/802.11/dcn/23/11-23-1721-02-00bf-lb276-resolutions-on-primitive-related-comments-part-5.docx> |

**Modifications:**

***To TGbf editor: Please modify the text on P189L25 as follows.***

In the SBP initiator, the DMG SBP procedure expiry timer shall be set to *aDMGSBPProcedureExpiry* at the issue of the MLME-DMG-SBP.confirm primitive with the StatusCode set to Success and the generation of the MLME-DMG-SBPREPORT.indication primitive. (#3439)

# 3500

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| **CID** | **Clause**  | **Page** | **Comment** | **Proposed change** | **Propose resolution** |
| 3500 | 11.55.4.4 | 193.39 | The text lacks the case where the SBP procedure is terminated using the timer, not using SBP Termination frame. If the DMG SBP procedure is terminated implicitly using the expiry timer, the MLME-DMG-SBPTERMINATION.confirm primitive should be issued after the expiration of the timer. | Add the text: "Upon expiry of the DMG SBP procedure expiry timer, the SBP initiator or the SBP responder shall issue an MLME-DMG-SBPTERMINATION.confirm primitive to terminate the corresponding DMG SBP procedure. " | **ACCEPTED.** |

**Discussions:**

The SBP procedure expiry timer is maintained in the MLME. Once this timer expires, the MLME will issue an MLME-DMG-SBPTERMINATION.confirm primitive to the SME to terminate the corresponding SBP procedure. Not only the transmission of a DMG SBP Termination frame will result in the issue of an MLME-DMG-SBPTERMINATION.confirm primitive, but also the expiry of the SBP procedure expiry timer. The proposed change makes sense, so it is accepted. A similar mechanism is used for the sensing measurement session expiry timer (P160 in D2.1).

# 3023, 3495, 3496

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| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 3023 | 11.55.4.2 | 189.64 | Parameters of MLME primitives are no longer defined in Clause 6 (except for those in 6.5). | Text in 11.55.4.2 must be re-written so that it refers to elements/fields of frames, which are defined in Clause 9, instead of primitive parameters, which are no longer defined in Clause 6. For example, in 189.64, instead of referring to PeerSTAAddress (which is no longer defined in Clause 6), we must refer instead to the address of the AP to which the DMG SBP Request frame is sent to.Suggestion (edits may be needed): ... to establish a DMG SBP procedure, the SME of a non-AP and non-PCP DMG STA (SBP initiator) shall issue an MLMEDMG-SBP.request primitive that results in the transmission of a DMG SBP Request frame to the intended SBP responder.Unfortunately, this issue will lead to many modifications to 11.55.4.2. |
| 3495 | 11.55.4.2 | 189.61 | For normative texts in SBP setup, it would be clearer to connect primitive issueing and the transmission of frames. Both DMG and sub-7 should be the same. | Change "If... are true, to establish a DMG SBP procedure, the SME of a non-AP and non-PCP DMG STA (SBP initiator) shall issue an MLME-DMG-SBP.request primitive with PeerSTAAddress parameter equal to the intended SBP responder's MAC address."to " If ... are true, to establish a DMG SBP procedure, the SME of a non-AP and non-PCP DMG STA (SBP initiator) shall request the transmission of a DMG SBP Request frame to the SBP responder by generating an MLME-DMG-SBP.request primitive with PeerSTAAddress parameter equal to the intended SBP responder's MAC address." |
| 3496 | 11.55.4.2 | 190.14 | For normative texts in SBP setup, it would be clearer to connect primitive issueing and the transmission of frames. Both DMG and sub-7 should be the same. | add the following sentece after aDMGSBPSetupExpiry: " Upon receipt of an MLME-DMG-SBP response primitive, the MLME of the SBP responder shall transmit a DMG SBP Response frame to the SBP initiator." |

**Proposed resolution: REVISED to all.**

Agree with the commenter that we should rewrite the text to use the element/field in the frames to define the normative behaviors. Please refer to the modifications labelled with #3023, #3495 and #3496 in DCN 23/1721r0:

<https://mentor.ieee.org/802.11/dcn/23/11-23-1721-02-00bf-lb276-resolutions-on-primitive-related-comments-part-5.docx>

***To TGbf Editor: Please modify the text from P191L3 to P193L29 in subclause 11.55.4.2 as follows.***

**11.55.4.2 DMG SBP setup exchange**

If both dot11DMGSensingMsmtImplemented and dot11DMGSBPImplemented are true, to establish a DMG SBP procedure, the SME of a non-AP and non-PCP DMG STA (SBP initiator) shall issue an MLME-DMG-SBP.request primitive that results in the transmission of a DMG SBP Request frame to the intended SBP responder. The DMG SBP Request frame shall include valid parameters as defined in DMG Sensing Measurement Session and DMG SBP Parameters elements. 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 the reserved values.

The DMG SBP Parameters element within the DMG SBP Request frame may include a Sensing Responder Addresses field to indicate a set of preferred sensing responders.

On receiving a DMG SBP Request frame, if both dot11DMGSensingMsmtImplemented and dot11DMGSBPImplemented are true, the SBP responder shall validate the frame and issue an MLME-DMG-SBP.indication primitive. If the SME of an SBP responder receives an MLME-DMG-SBP.indication primitive, it shall issue an MLME-DMG-SBP.response primitive that results in the transmission of a DMG SBP Response frame to the SBP initiator within *aDMGSBPSetupExpiry*. The Status Code field within the DMG SBP Response frame should be set to SUCCESS to indicate that the SBP procedure request is accepted if the SBP responder is able to satisfy the SBP request with parameters indicated in the DMG SBP Request frame. The Status Code field within the DMG SBP Response frame shall be set to REQUEST\_DECLINED or to REJECTED\_WITH\_SUGGESTED\_CHANGES to indicate that the DMG SBP procedure request is rejected if the SBP responder is not able to satisfy the DMG SBP request with parameters indicated in the DMG SBP Request frame.

If the Status Code field within the DMG SBP Response frame is set to REJECTED\_WITH\_SUGGESTED\_CHANGES, the DMG SBP Response frame shall include a DMG SBP Parameters element and a DMG Sensing Measurement Session element that specify preferred SBP and DMG measurement session parameters, respectively.

If the Status Code field within the DMG SBP Response frame is set to SUCCESS, the DMG SBP Response frame shall include a DMG Measurement Session ID field that specifies the DMG Measurement Session ID assigned for the DMG SBP setup exchange. In this case, the DMG SBP Response frame may also include a DMG SBP Parameters element.

On receiving a DMG SBP Response frame, the SBP initiator shall validate the DMG SBP Response frame by ensuring its fields are valid and issue an MLME-DMG-SBP.confirm primitive. If the SBP initiator receives a DMG SBP Response frame with the Status Code field equal to REQUEST\_DECLINED or REJECTED\_WITH\_SUGGESTED\_CHANGES, or if it does not receive a DMG SBP Response frame with the Status Code field equal to SUCCESS within *aDMGSBPSetupExpiry* of sending the corresponding DMG SBP Request frame, the DMG SBP procedure setup exchange is defined to be unsuccessful.

The DMG Sensing Measurement Session element within the DMG Sensing Measurement Request frame sent to initiate a DMG sensing procedure used to satisfy a DMG SBP request shall be identical to the DMG Sensing Measurement Session element within the corresponding DMG SBP Request frame. The DMG Measurement Session ID field within the DMG Sensing Measurement Request frame sent to initiate a DMG sensing procedure used to satisfy a DMG SBP request shall be identical to the DMG Measurement Session ID field within the corresponding DMG SBP Response frame.

The DMG SBP Request field within the DMG SBP Parameters element within a DMG SBP Request frame shall be set to 1. The DMG SBP Request field within the DMG SBP Parameters element within a DMG SBP Response frame shall be set to 0.

The SBP responder shall send a DMG SBP Response frame with the Status Code field set to REQUEST\_DECLINED if the DMG Mandatory Number of Responders field within the DMG SBP Parameters element within the corresponding DMG SBP Request frame is set to 1 and the SBP responder is not able to satisfy the requested number of sensing responders indicated in the DMG Number of Sensing Responders field within the DMG SBP Parameters element. If the DMG Mandatory Number of Responders field within the DMG SBP Parameters element is set to 0, the SBP responder should send a DMG SBP Response frame with the Status Code field set to SUCCESS even if the requested number of sensing responders indicated in the DMG Number of Sensing Responders within the DMG SBP Parameters element cannot be satisfied.

If the Sensing Responder field within the DMG SBP Parameters element of the corresponding DMG SBP Request frame is set to 0, the SBP responder shall not use a DMG sensing procedure initiated with the issue of an MLME-DMG-SENSMSMTSESSION.request primitive that resulted in the transmission of a DMG Sensing Measurement Request frame to the SBP initiator to satisfy the DMG SBP request. Otherwise, if the Sensing Responder field is set to 1, the SBP responder shall use a DMG sensing procedure initiated with the issue of a MLME-DMG-SENSMSMTSESSION.request primitive that resulted in the transmission of a DMG Sensing Measurement Request frame to the SBP initiator to satisfy the DMG SBP request.

If the DMG Preferred Responder List field within the DMG SBP Parameters element of the corresponding DMG SBP Request frame is set to 0, the SBP responder may include any DMG STA in the DMG sensing procedure used to satisfy the DMG SBP request that allows for measurements to be obtained with the operational parameters specified in the DMG SBP Request frame.

If the DMG Preferred Responder List field and the DMG Mandatory Preferred Responder field within the DMG SBP Parameters element of the DMG SBP Request frame are both set to 1, the intended sensing responder of the DMG sensing procedure used by the SBP responder shall be equal to one of the MAC addresses listed in the Sensing Responder Addresses field within the corresponding DMG SBP Request frame.

If the DMG Preferred Responder List field and the DMG Mandatory Preferred Responder field within the DMG SBP Parameters element of the DMG SBP Request frame are set to 1 and 0, respectively, the SBP responder may use a DMG sensing procedure initiated with the issue of an MLME-DMG-SENSMSMTSESSION.request primitive that resulted in the transmission of a DMG Sensing Measurement Request frame to a sensing responder with MAC address not equal to any of the MAC addresses listed in the Sensing Responder Addresses field within the corresponding DMG SBP Request frame if a DMG sensing procedure cannot be established with one or more STAs with MAC addresses listed in the Sensing Responder Addresses field.

If the DMG Preferred Responder List field within the DMG SBP Parameters element of the DMG SBP Request frame is set to 1, the DMG Number of Preferred Responders field shall be equal to the number of MAC addresses included in the Sensing Responder Addresses field.

The DMG Preferred Responder List field within the DMG SBP Parameters element of a DMG SBP Response frame shall be set to 1 only if:

— The Status Code field within the DMG SBP Response frame is set to SUCCESS; and

— The DMG Preferred Responder List field within the DMG SBP Parameters element of the corresponding DMG SBP Request frame is equal to 1.

Otherwise, the DMG Preferred Responder List field within the DMG SBP Parameters element of the DMG SBP Response frame shall be set to 0.

If the DMG Preferred Responder List field within the DMG SBP Parameters element of the DMG SBP Response frame is set to 0, neither the Sensing Responder Addresses nor the Sensing Responder IDs fields shall be included in the frame. If the DMG Preferred Responder List field within the DMG SBP Parameters element of the DMG SBP Response frame is set to 1, both Sensing Responder Addresses and Sensing Responder IDs fields shall be included in the frame. In this case, the DMG Number of Preferred Responders field shall be equal to the number of MAC addresses within the Sensing Responder Addresses field and the number of AID/USIDs within the Sensing Responder IDs field.

If the Status Code field within the DMG SBP Response frame is set to SUCCESS, the DMG Number of Sensing Responders field within the DMG SBP Parameters element shall be equal to the number of sensing responders used in the DMG sensing procedure used by the SBP responder to satisfy the DMG SBP request.

If the Status Code field within the DMG SBP Response frame is set to REJECTED\_WITH\_SUGGESTED\_CHANGES, the DMG Number of Sensing Responders field within the DMG SBP Parameters element should indicate a suggested number of sensing responders.

NOTE—The method used by an SBP responder to select DMG STAs to include in the DMG sensing procedure used in response to a DMG SBP Request frame in which the DMG Preferred Responder List field within the DMG SBP Parameters element is equal to 0 or in which the DMG Preferred Responder List field and the DMG Mandatory Preferred Responder field within the DMG SBP Parameters element are set to 1 and 0, respectively, is implementation dependent.

If the SBP responder of a DMG SBP request that has resulted in a DMG SBP Response frame being sent with the Status Code field set to SUCCESS is not able to satisfy required parameters specified in the corresponding DMG SBP Request frame, it shall send a DMG SBP Termination frame to the SBP initiator by issuing an MLME-DMG-SBPTERMINATION.request primitive. The DMG Measurement Session ID field within the DMG SBP Termination frame sent by the SBP responder shall be identical to the DMG Measurement Session ID field within the corresponding DMG SBP Response frame.

SP:

Do you agree to the resolutions provided for CIDs 3439, 3500, 3023, 3495, 3496 in 23/1721r2 to be included in the latest 11bf Draft?

Y/N/A