IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **New Clause 6 Draft Text** | | | | |
| Date: 2022-04-03 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Claudio da Silva | Meta Platforms, Inc. |  |  | claudiodasilva@meta.com |
| Narengerile | Huawei Technologies, Co., Ltd. |  |  | narengerile@huawei.com |
| Stephen McCann |  |  |  |
| Zhuqing Tang |  |  |  |

Abstract

This document contains proposed Clause 6 text necessary for the IEEE P802.11bf amendment to confirm to the new format specified for this clause in IEEE P802.11-REVme/D2.0 and subsequent revisions.

This document implements the discussion in 23/0512r1.

R0: initial version.

TGbf Editor – Insert the following text in 6.4 (Table of MLME SAP interfaces):

***Insert the following rows in Table 6-1 (MLME SA interface):***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Service Name** | **MLME-xxx** | **Type** | **References** | **Comments** |
| WLAN sensing procedure | SENSMSMTSETUP | 1 | 9.6.7.49 ((Protected) Sensing Measurement Setup Request frame format), 9.6.7.50 ((Protected) Sensing Measurement Setup Response frame format) | See 11.55.1.4 (Sensing measurement setup) |
| SENSMSMTTERMINATION | 2 | 9.6.7.52 ((Protected) Sensing Measurement Setup Termination frame format) | See 11.55.1.6 (Sensing measurement setup termination) |
| SENSTBMSMTRQ | 6 | 9.3.1.22.14.2 (Sensing Polling Trigger frame),  9.3.1.19.5 (Sensing NDP Announcement frame format),  9.3.1.22.14.3 (SR2SI Sounding Trigger frame),  9.3.1.22.14.6 (SR2SR Sounding Trigger frame),  9.3.1.22.14.4 (Sensing Report Trigger frame),  9.3.1.22.14.5 (Sensing Threshold-based Report Trigger frame) | See 11.55.1.5.2 (TB sensing measurement instance) |
| SENSNONTBMSMTRQ | 6 | 9.3.1.19.5 (Sensing NDP Announcement frame format),  9.3.1.22.14.4 (Sensing Report Trigger frame) | See 11.55.1.5.3 (Non-TB sensing measurement instance) |
| SENSREPORT | 7 | 9.4.1.75 (Sensing Measurement Report Container field) | See 11.55.1.5.2.6 (Reporting phase), 11.55.1.5.3.3 (Reporting phase) |
| SENSREPORTRQ | N/A | 6.5.25 (WLAN sensing procedure) |
| SBP procedure | SBP | 1 | 9.6.7.54 ((Protected) SBP Request frame format), 9.6.7.55 ((Protected) SBP Response frame format) | See 11.55.2 (SBP procedure) |
| SBPREPORT | 2 | 9.6.7.57 (SBP Report frame format), 9.6.36.6 (Protected SBP Report frame) |
| SBPTERMINATION | 2 | 9.6.7.56 ((Protected) SBP Termination frame format) |
| DMG sensing procedure | DMG-SENSMSMTSETUP | 1 | 9.6.19.24 (Protected DMG Sensing Measurement Setup Request frame format),  9.6.19.25 (Protected DMG Sensing Measurement Setup Response frame format),  9.6.21.8 (DMG Sensing Measurement Setup Request frame format),  9.6.21.9 (DMG Sensing Measurement Setup Response frame format) | See 11.55.3.4 (DMG sensing measurement setup) |
| DMG-SENSMSMTTERMINATION | 2 | 9.6.21.11 (DMG Sensing Measurement Setup Termination frame format),  9.6.36.4 (Protected DMG Sensing Measurement Setup Termination frame) | See 11.55.3.8 (DMG sensing measurement setup termination) |
| DMG-SENSMSMTSTART | 5 | 9.6.21.3 (BRP frame format),  9.3.1.25.5 (DMG Sensing Request),  9.3.1.25.7 (DMG Sensing Poll) | See 11.55.3.5 (DMG sensing burst), 11.55.3.6 (DMG sensing instance) |
| DMG-SENSMSMT | 7 | 9.6.21.10 (DMG Sensing Measurement Report frame format),  9.6.36.3 (Protected DMG Sensing Measurement Report frame) | See 11.55.3.6 (DMG sensing instance),  11.55.3.7 (DMG sensing measurement reporting) |
| DMG-SENSREPORT | 3 |
| DMG SBP procedure | DMG-SBP | 1 | 9.6.19.26 (Protected DMG SBP Request frame format),  9.6.19.27 (Protected DMG SBP Response frame format),  9.6.21.12 (DMG SBP Request frame format),  9.6.21.13 (DMG SBP  Response frame format) | See 11.55.4 (DMG SBP procedure) |
| DMG-SBPREPORT | 2 | 9.6.19.28 (Protected DMG SBP Report frame format),  9.6.21.14 (DMG SBP Report frame format) |
| DMG-SBPTERMINTION | 2 | 9.6.21.15 (DMG SBP Termination frame format),  9.6.36.5 (Protected DMG SBP Termination frame) |

TGbf Editor – Insert the following text in 6.5 (MLME SAP primitives):

***Insert the following new subclause at the end of 6.5 (MLME SAP primitives):***

**6.5.25 WLAN sensing procedure**

**6.5.25.1 Sensing report request**

**6.5.25.1.1 General**

The following set of MLME primitives support the reporting of sensing measurement results between an AP and a non-AP STA.

NOTE–If used in the basic reporting phase of a TB sensing measurement instance (see 11.55.1.5.2.6.1 (Basic reporting phase)) or in a non-TB sensing measurement instance (see 11.55.1.5.3.3 (Reporting phase)), the set of MLME primitives in this subclause assume the general form Type 2 (see 6.3.3 (Type 2)). If used in the threshold-based reporting phase of a TB sensing measurement instance (see 11.55.1.5.2.6.2 (Threshold-based reporting phase)), the set of MLME primitives in this subclause does not assume one of the general forms of MLME-SAP interface primitives defined in 6.3 (MLME SAP interface).

**6.5.25.1.2 MLME- SENSREPORTRQ.request**

**6.5.25.1.2.1 Function**

This primitive requests the transmission of a Sensing Measurement Report frame to a peer STA.

**6.5.25.1.2.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-SENSREPORTRQ.request(

PeerSTAAddress,

SensingMeasurementReportContainer

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| PeerSTAAddress | MAC address | Any valid individual MAC address | Specifies the MAC address of the sensing initiator to which the Sensing Measurement Report frame is sent. |
| SensingMeasurementReportContainer | As defined in 9.4.1.75 (Sensing Measurement Report Container field). | As defined in 9.4.1.75 (Sensing Measurement Report Container field). | As defined in 9.4.1.75 (Sensing Measurement Report Container field). |

**6.5.25.1.2.3 When generated**

This primitive is generated by the SME to request that a Sensing Measurement Report frame be sent to a peer STA to deliver a sensing measurement report.

**6.5.25.1.2.4 Effect of receipt**

On receipt of this primitive during a TB sensing measurement instance (see 11.55.1.5.2.6 (Reporting phase)), the MLME constructs a Sensing Measurement Report frame and causes it to be transmitted when triggered by the Sensing Report Trigger frame (see 11.55.1.5.2.6.1 (Basic reporting phase)) or the Sensing Threshold-based Report Trigger frame (see 11.55.1.5.2.6.2 (Threshold-based reporting phase)).

On receipt of this primitive during a non-TB sensing measurement instance (see see 11.55.1.5.3.3 (Reporting phase)), the MLME constructs a Sensing Measurement Report frame and causes it to be transmitted to the non-AP STA in response to the received Sensing NDP Announcement frame and SI2SR NDP.

**6.5.25.1.3 MLME-SENSREPORTRQ.confirm**

**6.5.25.1.3.1 Function**

This primitive reports the results of a request to transmit a Sensing Measurement Report frame.

**6.5.25.1.3.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-SENSREPORTRQ.confirm(

PeerSTAAddress,

MeasurementSetupID,

MeasurementInstanceID

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| PeerSTAAddress | MAC address | Any valid individual MAC address | Specifies the MAC address of the sensing initiator to which the Sensing Measurement Report frame was sent. |
| MeasurementSetupID | Integer | As defined in Figure 9-1139c (Measurement Setup ID field format). | Identifies the sensing measurement setup for the Sensing Measurement Report frame that was sent. |
| MeasurementInstanceID | Integer | As defined in 11.55.1.5.1 (General). | Identifies the sensing measurement instance for the Sensing Measurement Report frame that was sent. |

**6.5.25.1.3.3 When generated**

This primitive is generated by the MLME when the STA successfully transmits a Sensing Measurement Report frame.

**6.5.25.1.3.4 Effect of receipt**

On receipt of this primitive, the SME may release the resources associated with the sensing measurement report of the reported sensing measurement instance.

**6.5.25.1.4 MLME-SENSREPORTRQ.indication**

**6.5.25.1.4.1 Function**

This primitive indicates that a Sensing Measurement Report frame has been received.

**6.5.25.1.4.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-SENSREPORTRQ.indication(

PeerSTAAddress,

SensingMeasurementReportContainer

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| PeerSTAAddress | MAC address | Any valid individual MAC address | Specifies the MAC address of the sensing responder from which the Sensing Measurement Report frame was received. |
| SensingMeasurementReportContainer | As defined in 9.4.1.75 (Sensing Measurement Report Container field). | As defined in 9.4.1.75 (Sensing Measurement Report Container field). | As defined in 9.4.1.75 (Sensing Measurement Report Container field). |

**6.5.25.1.4.3 When generated**

This primitive is generated by the MLME when the STA receives a Sensing Measurement Report frame.

**6.5.25.1.4.4 Effect of receipt**

On receipt of this primitive, if received during the basic reporting phase of a TB sensing measurement instance (see 11.55.1.5.2.6.1 (Basic reporting phase)) or during a non-TB sensing measurement instance (see 11.55.1.5.3.3 (Reporting phase)), the SME is notified of sensing measurement results. If received during the threshold-based reporting phase of a TB sensing measurement instance (see 11.55.1.5.2.6.2 (Threshold-based reporting phase)), the SME is notified of sensing measurement results or the CSI variation feedback value.

TGbf Editor – Delete subclause 6.3 (MLME SAP interface) in 11bf D1.0.