IEEE P802.11
Wireless LANs

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| --- |
| D0.51 Bug fixes |
| Date: 2023-01-12 |
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|  |  |  |  |  |

Abstract

D0.51 bug fixes

Revisions History:

r0 – initial version

r1 – added resolution of comments received at the r0 presentation

P94L51

**9.4.2.36 Neighbor Report element**

[ST] There is no way to know how the MIB is set other than to see the capability

The Sensing field is set to 1 to indicate that the AP represented by this BSSID is an AP that has set the WLAN Sensing field of the Extended Capabilities element to 1. The Sensing field is set to 0 to indicate ~~either that~~ or the reported AP has not set the WLAN Sensing field of the Extended Capabilities element to 1…

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**9.4.2.328 DMG Sensing Report Control element**

The AID/USID field is included in the elements to allow the SBP responder forwarding. This element is forwarded as well, so the field shall be added.

***TGbf Editor, change the Figure as follows***

P113

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Element Id | Length | Element ID extension | AID/USID | Report Control |
| Octets | 1 | 1 | 1 | 1 | 6 |

**Figure 9-1002bt—DMG Sensing Report Control element format**

P113L65

***TGbf Editor, append new paragraph as follows***

The AID/USID subfield uniquely identifies the sensing responder to whom the DMG Sensing Report Control element belongs.

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**9.4.2.329.4 DMG Sensing Targets Report Data subelement**

P121 – P123

**Figure 9-1002cg—DMG Sensing Target Report Data**

*“Target subelements” is wrong name of the field – it is not sub-element. Propose to replace the name with “Target parameters”*

***TGbf Editor, in pages P121 – P123 replace all appearances of “Target subelements” with “Target parameters”, and “Target subelement” with “Target parameter”***

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**9.4.2.333 DMG Sensing Instance Duration element(Motion 221)**

*Figure 9-1002cp—DMG Sensing Instance Duration element format, the field names are not consistent with other places the fields are used.*

***TGbf Editor, in Figure 9-1002cp—DMG Sensing Instance Duration element format replace names of the fields Duration of Sounding with Sounding Duration and Duration of Report with Report Duration respectively.***

*P127L43*

*The element is referred in the DMG Sensing Measurement Setup Response frame only.*

***TGbf Editor, remove “***If the DMG Sensing Instance Duration element is contained in the DMG Sensing Measurement Setup Response frame the following conditions apply:”

*P127L46-65*

***TGbf Editor, change as follows***

If the SP subfield in the DMG Sensing Measurement Setup Request frame is set to 1, the Sounding

Duration field contains the maximum duration of sounding phase transmitted by the sensing responder among all DMG sensing instances belonging to the same DMG Measurement setup ID. If the SP subfield in the DMG Sensing Measurement Setup Request frame is set to 0, the Sounding Duration field contains the duration of sounding phasetransmitted by the sensing responder in the first DMG sensing instance. The value of the Sounding Duration field is equal to the sum of the sounding PPDUs and SBIFS between them. The sounding PPDUs refer to DMG Sensing Monostatic PPDUs. This field is in the unit of microsecond. A value of 0 indicates that the sensing responder does not transmit any sounding PPDUs.

— If the SP subfield in the DMG Sensing Measurement Setup Request frame is set to 1, the Report

Duration field contains the maximum duration of the DMG Sensing Measurement Report

 frame transmitted by the sensing responder among all DMG sensing instances belonging to the same DMG Measurement setup ID. If the SP subfield in the DMG Sensing Measurement Setup Request frame is set to 0, the Report Duration field contains the duration of the DMG Sensing Measurement Report frame transmitted by the sensing responder in the first DMG sensing instance.

This field is in the unit of microsecond. A value of 0 indicates that the sensing responder does

not transmit any report frame.

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**9.4.2.334 DMG SBP Parameters element(#338)**

P128L52

***TGbf Editor, append as follows***

It is set to 0 to indicate that the DMG SBP Parameters element is delivered by the DMG SBP Response frame and the DMG SBP Termination frame.

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**9.6.7.49 Sensing Measurement Setup Request frame format**

P132L26

The Measurement Setup ID is a field in the frame format and not an element. Changing the format of the frame as a function of the frame's field is not a good practice. I suggest keeping the Measurement Setup ID field.

***TGbf Editor, change as follows***

“The Measurement Setup ID field is reserved if the Comeback subfield of the Sensing Comeback Info field is set to 1 in a Sensing Measurement Setup Request frame addressed to an unassociated non-AP STA by an AP”

***TGbf Editor, in* Figure 9-1139a—(Sensing Measurement Setup Request frame Action field format*) under Measurement setup ID remove “0 or”***

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**9.6.7.50 Sensing Measurement Setup Response frame format**

P132

**Figure 9-1139d—Sensing Measurement Setup Response frame Action field format**

The format does not contain the Measurement setup ID field. The Dialog Token may allow a reconstruction of the Measurement setup ID at the initiator, but the use of the Dialog Token is implementation specific. I suggest insertion the Measurement Setup ID field after the Dialog Token field.

***TGbf Editor, in Figure 9-1139d—Sensing Measurement Setup Response frame Action field format***

***insert the Measurement Setup ID field after the Dialog Token field***

*P133L6*

***TGbf Editor, insert a new paragraph***

The Measurement Setup ID field in the Sensing Measurement Setup Response frame is shown in Figure 9-1139c— (Measurement Setup ID field format) and is set to the value in the corresponding Sensing Measurement Setup Request frame.

P133L8

***TGbf Editor change as follows***

The Status Code field(#522, #379) is defined in 9.4.1.9 (Status Code field).The status codes SUCCESS, REQUEST\_DECLINED, and REJECTED\_WITH\_SUGGESTED\_CHANGES are used in the frame.

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**9.6.7.55 SBP Response frame format**

P136L18

***TGbf Editor change as follows***

The Status Code field is defined in 9.4.1.9 (Status Code field). If the AP STA accepts the request, the Status Code field is set to SUCCESS (see 9.4.1.9 (Status Code field).

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**9.6.10 Protected Dual of Public Action frames**

**Table 9-487—Public Action field values defined for Protected Dual of Public Action frames**

*Each of the protected frames defined in the table refers to subclause 9.6.7.49 - 9.6.7.56 respectively. These subclauses define frames as belonging to the "Public Action field defined in 9.6.7.1 (Public Action Frames)", however they must belong to "****9.6.10 Protected Dual of Public Action frames*** *".*

*The issue is general for all Protected Dual of Public Action frames defined in IEEE P802.11-REVme/D2.0, October 2022.*

*I propose keeping definition of both protected and unprotected frames in one subclause. There are the relevant changes*

**9.6.7.49 (Protected) Sensing Measurement Setup Request frame format**

The (Protected) Sensing Measurement Setup Request frame is transmitted by a sensing …

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Category** | **Public Action/ *Protected Dual of Public Action*** | **Dialog Token** | **Sensing Comeback Info** | **Measurement Setup ID** | **Sensing Measurement Parameters Element**  |
| **Octets**  | **1** | **1** | **1** | **1** | **0 or 1** | **0 or variable** |

**Figure 9-1139a—(Protected) Sensing Measurement Setup Request frame Action field format(#75, #260, #378, #515, #299, #308, #316, #481)**

The Public/ Protected Dual of Public Action field is defined in 9.6.7.1 (Public Action frames) and 9.6.10 (Protected Dual of Public Action frames), respectively.

***TGbf Editor, provide the changes in all subclauses*** *9.6.7.49 - 9.6.7.56*

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**9.6.7.54 SBP Request frame format**

P135L38

“The Dialog Token field is set to a nonzero value chosen by the STA sending the SBP request to identify the request/response transaction.” It is new definition of the field that is already defined in the basic spec. Suggest referring to the known definition.

***TGbf Editor, replace with***

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and set by the requesting STA.

P135L42

**TGbf Editor, remove** “The ISTA Availability Window element is defined in 9.4.2.296 (ISTA Availability Window element)(#596, #597).” ***as duplicated***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**9.6.7.55 SBP Response frame format**

P136L24

The Measurement Setup ID is a field in the frame format and not an element. Changing the format of the frame as a function of the frame's field is not a good practice. I suggest keeping the Measurement Setup ID field.

***TGbf Editor, change as follows***

The Measurement Setup ID field is reserved if the Status Code field is not equal to SUCCESS.

***TGbf Editor, in* Figure 9-1139j— (SBP Response frame Action field format) *under Measurement setup ID remove “0 or”***

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**9.6.21.8 DMG Sensing Measurement Setup Request frame format**

P142L33

***TGbf Editor, replace with***

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and set by the requesting STA.

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**9.6.21.10 DMG Sensing Measurement Report frame format**

P143L65

***TGbf Editor, change as follows***

The Status Code is defined in 9.4.1.9 (Status Code field).The status codes SUCCESS, REQUEST\_DECLINED, and REJECTED\_WITH\_SUGGESTED\_CHANGES are used in the frame.

P144L54

***TGbf Editor, replace with***

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and set by the requesting STA.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**9.6.21.12 DMG SBP Request frame format**

P146L37

***TGbf Editor, replace with***

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and set by the requesting STA.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**9.6.21.14 DMG SBP Report frame format**

P147L32

***TGbf Editor, replace with***

The Status Code is defined in 9.4.1.9 (Status Code field).

P148L1

***TGbf Editor, replace with***

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and set by the requesting STA.

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P154L51

***TGbf Editor, fix as shown***

An example of a WLAN sensing procedure is shown in

P160L54

***TGbf Editor, fix as shown***

When the sensing initiator includes a non-TB specific subelement

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**11.55.1.4 Sensing measurement setup**

P158L53

***TGbf Editor, change the text to avoid misinterpretation***

The Comeback subfield of the Sensing Comeback Info field within the Sensing Measurement Setup Request frame shall be set to 0 if any of the following is true:

— the non-AP STA that transmits the frame is a sensing initiator

— the AP is a sensing initiator and transmits the frame to a sensing responder associated with the AP (

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P159L18

It should be the name of the timer as presented in the table

***TGbf Editor, change the text as follows***

The sensing responder should transmit the Sensing Measurement Setup Response frame within a Sensing Frame Exchange Timeout (see Table 11-29a (Sensing timeout values))

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

P159L21

The word unsuccessful does not have clear normative meaning, suggest clarifying

***TGbf Editor, change the text as follows***

If no Sensing Measurement Setup Response frame is received within this time period, or if a Sensing Measurement Setup Response frame is received with a status code other than 0 (SUCCESS),

the measurement setup of the granted Measurement Setup ID shall not be resumed and is considered unsuccessful(#770).

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**11.55.2.2 Setup**

P174

**Table 11-29c—SBP timeout values**

The attribute dot11SBPSetupExpiry shall not appear in the table and shall be present in Annex C

***TGbf Editor, remove the row in Table 11-29c—SBP timeout values and append the attribute to Annex C***

dot11SENSReportSegmentSize, Unsigned32

dot11SBPSetupExpiry, Unsigned32

dot11DMGSensingProcedureExpiry, Unsigned32

dot11DMGSBPSetupExpiry, Unsigned32

dot11DMGSBPProcedureExpiry, Unsigned32

dot11SBPSetupExpiry OBJECT-TYPE

SYNTAX Unsigned32 { 100 }

UNITS "milliseconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a control variable.

It is written by an external management entity or the SME. Changes take effect as soon as practical in the implementation.

This attribute indicates the time limit the SBP responder shall send

an SBP Response frame after receiving an SBP Request"

::= { dot11SENSStationConfigEntry 2 }

dot11DMGSensingProcedureExpiry OBJECT-TYPE

SYNTAX Unsigned32 { 10 }

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a control variable.

It is written by an external management entity or the SME. Changes take effect as soon as practical in the implementation.

This attribute indicates the time limit the sensing initiator and sensing responder terminate the DMG sensing measurement setup if no handshake happens during the established measurement setup"

::= { dot11SENSStationConfigEntry 3 }

dot11DMGSBPSetupExpiry OBJECT-TYPE

SYNTAX Unsigned32 { 200 }

UNITS "milliseconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a control variable.

It is written by an external management entity or the SME. Changes take effect as soon as practical in the implementation.

This attribute indicates the time limit the SBP responder shall send

an DMG SBP Response frame after receiving an DMG SBP Request"

::= { dot11SENSStationConfigEntry 4 }

dot11DMGSBPProcedureExpiry OBJECT-TYPE

SYNTAX Unsigned32 { 10 }

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a control variable.

It is written by an external management entity or the SME. Changes take effect as soon as practical in the implementation.

This attribute indicates the time limit the DMG SBP initiator and the DMG SBP responder terminate the DMG SBP procedure if no SBP reporting happens within the time.

::= { dot11SENSStationConfigEntry 5 }

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**11.55.3.4 DMG sensing measurement setup**

P186L42

***TGbf Editor, change as follows***

Each beam index in the TX Beam List and RX Beam List is an index into the list of beam descriptors …

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P186L55

***TGbf Editor, change as follows***

Any PPDU used for coordinated monostatic sensing shall be constructed according to the non-EDMG or EDMG PHY specifications. Sensing with a TRN field in a PPDU, , is an optional mode for the coordinated monostatic sensing(#449, #52).

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P187L45

***TGbf Editor, change as follows***

After receiving a DMG Sensing Measurement Setup Request

frame a DMG STA responds with a DMG Sensing Measurement Setup Response frame.

The sensing responder shall set the DMG Measurement Setup ID field in the DMG Sensing Measurement Setup Response frame to the value set in this field in the DMG Sensing Measurement Setup Request frame sent by the sensing initiator.

In the DMG Sensing Measurement Setup Response frame, the sensing responder shall set the Status Code field to SUCCESS if it accepts the measurement setup request. It shall set the Status Code field to REJECTED\_WITH\_SUGGESTED\_CHANGES If it rejects the request but will accept with the schedule that is included in DMG Sensing Scheduling subelement(#364) included in the DMG Sensing Measurement Setup element. It shall set the Status Code field to REQUEST\_DECLINED if it rejects the request.

Discussion:

In P186L64 we have the text “The sensing initiator shall include a DMG Sensing Scheduling subelement in the Optional Subelements field within the DMG Sensing Measurement Setup Request frame”. The subelement is an optional so a shall statement is not appropriate

***TGbf Editor: Change the text in P186L64 as follows:***

The sensing initiator may include a DMG Sensing Scheduling subelement in the Optional Subelements field within the DMG Sensing Measurement Setup Request frame.

Discussion:

In P189L51 we have the text “DMG sensing measurement instances of the DMG sensing types monostatic and the bistatic may not contain the initiation phase”. This is wrong. The intent is that the initiation phase is optional.

***TGbf Editor: Change the text in P189L57 as follows:***

DMG sensing measurement instances of the DMG sensing types monostatic and the bistatic may contain an initiation phase.

DMG sensing measurement instances of the DMG sensing types coordinated monostatic, coordinatedbistatic, and multistatic shall contain an initiation phase.

**References:**

IEEE P802.11bf/D0.51, January 2023