IEEE P802.11
Wireless LANs

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| CC40 CR for Topic Threshold – Part 4 |
| Date: 2022.1.3 |
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Abstract

This submission contains the proposed comment resolutions for the remaining 2 CIDs in the Topics “Threshold” shown in 22/0820 IEEE 802.11bf CC40 comments.

CIDs 287 and 483.

Revision Notes

|  |  |
| --- | --- |
| R0 | Initial version |
| R1 | Reuse Sensing Measurement Report frame to convey the CSI variation feedback |

# CID 287

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Chang | Resolution |
| 71.36 | 11.21.18.6.5 | Need to add descriptions and detailed designs on Sensing Trigger frame A and B. | As in the comment. | REVISED.The Sensing Trigger frame A (Sensing Threshold Based Report Poll Trigger frame) has been reflected in D0.5. The design of Sensing frame B (Sensing CSI Variation Feedback frame) is provided in this resolution.***Instructions to the editor:*** **Please make the changes as shown under CID 287 in 11-22/0002r1.** |

***Instructions to the editor: please make the following changes in subclause 9.4.1.75 Sensing Measurement Report Container field in D0.5 as shown below:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Container Length | Segmentation Control | Sensing Measurement Report Control | Sensing Measurement Report |
| Octets | 2 | 7 | variable | variable |

…

**Table 9-127f—Segmentation Control field**

|  |  |  |
| --- | --- | --- |
| **Field** | **Size (bits)** | **Definition** |
| Report Control Present  | 1  | Set to 1 to indicate that the Sensing Measurement Report Control field is present in the Sensing Measurement Report Container. Otherwise, set to 0. |
| Measurement Setup ID  | 3  | Identifies the sensing measurement setup corresponding to the Sensing Measurement Report |
| Measurement Instance ID  | 6  | Identifies the sensing measurement instance corresponding to the Sensing Measurement Report |
| Sensing Transmitter STA ID | 12  | AID or USID of the sensing transmitter corresponding to the Sensing Measurement Report |
| Sensing Receiver STA ID  | 12  | AID or USID of the sensing receiver corresponding to the Sensing Measurement Report |
| Remaining Report Segments | 5  | Indicates the number of remaining report segments for corresponding to the Sensing Measurement Report: Set to 0 for the last report segment of a segmented report or the only report segment of an unsegmented report. Set to a value between 1 and 32 for a feedback segment that is not the last report segment of a segmented report. |
| First Report Segment  | 1  | Set to 1 for the first report segment of a segmented report or the only feedback segment of an unsegmented report. Otherwise set to 0. |
| Invalid Measurement  | 1  | The Invalid Measurement subfield indicates whether the reported measurement result is invalid. An Invalid Measurement field value of 1 indicates that the reported measurement result is invalid. A value of 0 indicates that the reported measurement result is valid. |
| CSI Variation Feedback | 4 | The value between 0 and 10 reflects the CSI variation value obtained at the sensing receiver, and the value equal to 14 indicates that the CSI variation feedback is invalid. The above values are used for the feedback of CSI variation triggered by the Sensing Threshold-Based Report Poll Trigger frame. In this case the Remaining Report Segments field is set to 0 to indicate this is the last segment with no Sensing Measurement Report Control and Sensing Measurement Report fields in the frame.The value equal to 15 indicates that the CSI variation feedback is unused and the corresponding frame is used for the feedback of sensing measurement result transmitted in the measurement reporting subphase of the threshold-based reporting phase or in the basic reporting phase. See Table 9-zz (CSI Variation Feedback subfield definition) for details. |
| Reserved  | 8 | Reserved |

Table 9-zz CSI Variation Feedback subfield Definition

|  |  |
| --- | --- |
| Value | Description |
| 0 | 0 <= CSI variation value < 0.1 |
| 1 | 0.1 <= CSI variation value < 0.2 |
| 2 | 0.2 <= CSI variation value < 0.3 |
| 3 | 0.3 <= CSI variation value < 0.4 |
| 4 | 0.4 <= CSI variation value < 0.5 |
| 5 | 0.5 <= CSI variation value < 0.6 |
| 6 | 0.6 <= CSI variation value < 0.7 |
| 7 | 0.7 <= CSI variation value < 0.8 |
| 8 | 0.8 <= CSI variation value < 0.9 |
| 9 | * 1. <= CSI variation value < 1.0
 |
| 10 | 1.0 = CSI variation value  |
| 11-13 | Reserved |
| 14 | Invalid CSI Variation Feedback |
| 15 | Unused |

# CID 483

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 70.52 | 11.21.18.6.5 | MLME for threshold-based reporting are missing | Add primitives for threshold-based reporting | REVISED.The MLME change is given under this CID.***Instructions to the editor:*** **Please make the changes as shown under CID 483 in 11-22/0002r1.** |

***Instructions to the editor: please add the following figure and descriptions to subclause 6.3.136.1 General in 6.3.136 WLAN sensing procedure in D0.5 as shown below (This figure should be put after 6-28a WLAN sensing procedure with a TB sensing measurement instance):***

The following set of MLME primitives supports the WLAN sensing procedure described in 11.55.1 (WLAN sensing procedure). Figure 6-28a (WLAN sensing procedure with a TB sensing measurement instance(#819, #828, #211, #371, #731, #822, #389, #824, #829)) depicts a TB sensing measurement procedure that consists of either NDPA sounding or TF sounding (see 11.55.1.5.2 (TB sensing measurement instance)). This figure also depicts a TB sensing measurement procedure that consists of both NDPA sounding and TF sounding, except that the reporting phase, if present, shall be the last phase of a TB sensing measurement instance (see 11.55.1.5.2.5 (Reporting phase))(#732, #821). Figure 6-28b (WLAN sensing procedure with a non-TB sensing measurement instance(#819, #828, #389, #825, #212, #371, #731, #35, #822, #826, #827, #828)) depicts a non-TB sensing measurement procedure that consists of NDPA sounding with SI2SR NDP or SR2SI NDP or both SI2SR NDP and SR2SI NDP (see 11.55.1.5.3 (Non-TB sensing measurement instance))(#822, #826, #827, #829, #389, #823). Figure 6-28x (WLAN sensing procedure with a threshold-based reporting phase in a TB sensing measurement instance) depicts a TB sensing measurement procedure with a threshold-based reporting phase (see 11.55.1.5.2.5 (Basic reporting phase)). These figures are examples of basic procedures and are not meant to be exhaustive of all possible uses of the protocol.

***…***



Figure 6-28x-WLAN sensing procedure with a threshold-based reporting phase in a TB sensing measurement instance

***Instructions to the editor: please make the following change to subclause 6.3.136.12 in D0.5 as shown below:***

**6.3.136.12.4 Effect of receipt**

On receipt of this primitive, the MLME constructs a Sensing Measurement Report frame and causes it to be transmitted when triggered by the Sensing Report Trigger frame or the Sensing Threshhold-Based Report Poll Trigger frame.

***Instructions to the editor: please make the following change to subclause 6.3.136.12 in D0.5 as shown below:***

**6.3.136.15.1 Function**

This primitive reports the results or the CSI variation feedback value of a non-TB sensing measurement instance.

**6.3.136.15.4 Effect of receipt**

On receipt of this primitive, the SME is notified of the measurement results or the CSI variation feedback value of a non-TB sensing measurement instance(#116).

Discussion:

**The related figure (WLAN sensing procedure with a TB sensing measurement instance) in D0.5 is shown below:**



…, the arc that connects a primitive with a frame at MLME indicates that this primitive initiates the transmission of the connected frame and contains all the parameters needed to configure the frame, and the arc that connects frames at MLME indicates that the preceding frame initiates the transmission of the subsequent frame and contains all the parameters needed to configure the subsequent frame. (#484)

Discussion ends.

# SP

Do you support the proposed resolutions to the following CIDs and incorporate the text changes into the latest TGbf draft: 287 and 483?

Y/N/A