IEEE P802.11
Wireless LANs

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| LB272 Resolutions for MS Termination frame |
| Date: March 27, 2023 |
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Abstract

This submission proposes resolutions to the following LB272 CIDs.

* 1283, 2102, 2278, 1701.

The text used as reference is 802.11bf D1.0.

Revisions:

* Rev 0: Initial version of the document.

**Comments:**

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| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 1701 | Alireza Raissinia | 9.6.36.1 | 164.45 | Need to have Protected Sensing Measurement Termination frame with no-ACK as one of the Protected Sensing (i.e., category 38) since the frame can also be sent during non-TB sensing measurement instance, so it needs to be added to the table "Table 9-623l--Protected Sensing Action field values" and also a section under Protected Sensing frame | As per comment | **Revised/Rejected.**Agree with the commenter. Protected Sensing Measurement Termination frame is added to Table 9-623l and (new) section 9.6.36.3.Please refer to the discussion.TGbf Editor make changes as in doc.: 11-23/0528r0. |
| 2278 | Li-Hsiang Sun | 9.6.7.52 | 147.45 | When is action no ack used for sensing measurement setup termination frame? | add "If this frame is sent as a broadcast, then this frame is an Action No Ack frame. Otherwise it is an action frame" | **Revised.**Action no ack used for Sensing Measurement Setup Termination frame when AP transmits it in non-TB case. In other cases, Sensing Measurement Setup Termination frame is an action frame. A note is added to clarify this.TGbf Editor make changes as in doc.: 11-23/0528r0. |
| 2102 | Rui Du | 9.6.7.52 | 148.33 | What is value of the reserved Measurement Setup ID? 0? Is it possible that a setup up is indetified with Measurement Setup ID = 0? | As in comment. | **Revised.**If MS ID is reserved, the transmitter may fulfil the bits of MS ID field to zero. The receiver shall ignore this field. It is possible that a setup up is identified with Measurement Setup ID = 0.A note is added to clarify this issue.TGbf Editor make changes as in doc.: 11-23/0528r0. |
| 1283 | Xiandong Dong | 9.6.7.52 | 148.45 | If the Terminate Unassociated STA Sensing Session subfield is set to 1, the Terminate All TB Measurement Setups subfield, Terminate All non-TB Measurement Setups subfield and TB/non-TB Measurement Setup Type subfield are reserved, but the sentence "When the sensing session between an AP and a non-AP STA is terminated, all active sensing measurement setups established between the AP and the non-AP STA shall be terminated automatically" in the subclasue 11.55.1.7 , it seems that this sentence means if the If the Terminate Unassociated STA Sensing Session subfield of the Measurement Setup Termination Control field is set to 1, the Terminate All TB Measurement Setups subfield and Terminate All non-TB Measurement Setups subfield should be set to 1 implicitly, please make them consistently. | as in the comment | **Rejected.**If the Terminate Unassociated STA Sensing Session subfield is set to 1, the AP or unassociated STA requests to terminate the sensing session and all active sensing measurement setups established between the AP and the non-AP STA.Both sides just follow the indication of the “Terminate Unassociated STA Sensing Session” bit and will ignore the “Terminate All TB Measurement Setups” bit and “Terminate All non-TB Measurement Setups” bit. In conclusion, it doesn’t mean that the Terminate All TB Measurement Setups subfield and Terminate All non-TB Measurement Setups subfield should be set to 1 implicitly.Moreover, the “Terminate Unassociated STA Sensing Session subfield” was deleted in doc. 11-23/0477r0. |

**Discussion on CID 1701:**

The motivation of adding a Protected Sensing Measurement Termination frame with no-ACK as one of the Protected Sensing (i.e., category 38) is that AP may transmit the Protected Sensing Measurement Termination frame with no-ACK in non-TB case to explicitly terminate measurement setup(s). However, this only happens when AP has to transmit the sensing report, and then aggregates with a termination frame, e.g., NDPA + SI2SR NDP + SR2SI NDP + Sensing Report. But AP may not transmit the sensing report in some cases, e.g., NDPA + “dummy” SI2SR NDP + SR2SI NDP in non-TB case. In this situation, AP may have no chance to transmit a Protected Sensing Measurement Termination frame, since STA is the TXOP holder. So, let AP send sensing report aggregated with termination frame is not a once and for all approach, but implicit termination procedure is.

The following two options provide two different solutions to let AP terminates measurement setup(s) in non-TB case.

**Straw Poll: Which option do you prefer when AP terminates measurement setup(s) in non-TB case.**

* **Option 1:** Do not add a Protected Sensing Measurement Termination frame with no-ACK as one of the Protected Sensing (i.e., category 38) action frame, just use implicit termination procedure if AP wants to terminate measurement setup(s) in non-TB case.
* **Option 2:** Add a Protected Sensing Measurement Termination frame with no-ACK as one of the Protected Sensing (i.e., category 38) action frame, AP may transmit this frame to explicitly terminate measurement setup(s) in non-TB case.

Result: Y/N/A

**Discussion on CID 2278:**

As discussed in CID 1701, action no ack used for Sensing Measurement Setup Termination frame when AP transmits it in non-TB case. In other cases, Sensing Measurement Setup Termination frame is an action frame. A note is added to clarify this.

**9.6.7.52 (Protected) Sensing Measurement Setup Termination frame format**

***TGbf Editor: Please revise clause 9.6.7.52 ((Protected) Sensing Measurement Setup Termination frame format) as below.***

The (Protected) Sensing Measurement Setup Termination frame is an Action or an Action No Ack frame used to terminate sensing measurement setup(s). …

Note: If AP transmits a (Protected) Sensing Measurement Setup Termination frame to terminate sensing measurement setup(s) in non-TB case, the (Protected) Sensing Measurement Setup Termination frame is an Action No Ack frame.(#2278)

The Terminate All TB Measurement Setups subfield is set to 1 to indicate that the STA requests to terminate all sensing measurement setups established in the TB case. The Terminate All TB Measurement Setups subfield is set to 0 to indicate that the STA does not request to terminate all the sensing measurement setups established in the TB case. If the Terminate All TB Measurement Setups subfield is set to 1, the TB/non-TB Measurement Setup Type subfield and the Measurement Setup ID field are reserved.

The Terminate All non-TB Measurement Setups subfield is set to 1 to indicate that the STA requests to terminate all sensing measurement setups established in the non-TB case. The Terminate All non-TB Measurement Setups subfield is set to 0 to indicate that the STA does not request to terminate all the sensing measurement setups established in the non-TB case. If the Terminate All non-TB Measurement Setups subfield is set to 1, the TB/non-TB Measurement Setup Type subfield and the Measurement Setup ID field are reserved.

Note: If the Measurement Setup ID field is reserved, the transmitter shall set all the bits in Measurement Setup ID field to zero, and the receiver shall ignore the Measurement Setup ID field.(#2102)

If the Terminate All TB Measurement Setups subfield and the Terminate All non-TB Measurement Setups subfield are both set to 0, the TB/non-TB Measurement Setup Type subfield indicates the Measurement Setup ID contained in the Measurement Setup ID field is assigned to TB or non-TB case. The TB/non-TB Measurement Setup Type subfield is set to 0 to indicate that the Measurement Setup ID contained in Measurement Setup ID field is assigned by an AP for the TB sensing measurement instance; and set to 1 to indicate the Measurement Setup ID contained in Measurement Setup ID field is assigned by a non-AP STA for the non-TB sensing measurement instance.

The Terminate Unassociated STA Sensing Session subfield is set to 1 to indicate that the AP or unassociated STA requests to terminate the sensing session established between the AP and the unassociated STA. Otherwise the Terminate Unassociated STA Sensing Session subfield is reserved. If the Terminate Unassociated STA Sensing Session subfield is set to 1, the Terminate All TB Measurement Setups subfield, Terminate All non-TB Measurement Setups subfield and TB/non-TB Measurement Setup Type subfield are reserved.

**9.6.36.1 Protected Sensing Action field**

***TGbf Editor: Please revise clause 9.6.36.1 (Protected Sensing Action field) as below.***

A Protected Sensing Action field, in the one octet immediately after the Category field, differentiates the Protected Sensing frame formats. The Protected Sensing Action field values associated with each frame format within the Sensing category are defined in Table 9-623l (Protected Sensing Action field values).

**Table 9-623l—Protected Sensing Action field values**

|  |  |
| --- | --- |
| **Value** | **Meaning** |
| 0 | Reserved |
| 1 | Protected Sensing Measurement Report |
| 2 | Protected Sensing Measurement Setup Termination(#1701) |
| 3 | Protected DMG Sensing Measurement Report |
| 4 | Protected DMG Sensing Measurement Setup Termination |
| 5 | Protected SBP Report |
| 6-255 | Reserved |

**9.6.36.2 Protected Sensing Measurement Report frame**

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**9.6.36.3 Protected Sensing Measurement Setup Termination**

The Category field is defined in 9.4.1.11 (Action field).

The Action field is defined in 9.6.36.1 (Protected Sensing Action field).

The format of the frame after the action field is identical to the format of the Sensing Measurement Setup Termination frame (9.6.7.52 ((Protected) Sensing Measurement Setup Termination frame format)). (#1701)

**9.6.36.4 Protected DMG Sensing Measurement Report frame**

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**9.6.36.5 Protected DMG Sensing Measurement Setup Termination frame**

…

**9.6.36.6 Protected DMG SBP Termination frame**

…

**9.6.36.7 Protected SBP Report frame**

…

**SP: Move to approve resolutions to CIDs 1283, 2102, 2278, 1701,**

 **as specified in doc.: 11-23/0528r0 and incorporate the text changes into the latest TGbf draft.**