IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Comment resolution for OST miscellaneous comments | | | | |
| Date: 2023-03-24 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Chaoming Luo | OPPO |  |  | luochaoming@oppo.com |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This submission resolves miscellaneous comments under ‘OST’ topic. The following 9 CIDs are resolved: 1082, 1083, 1526, 1555, 1556, 1702, 1844, 1341, 1501.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Modify the reason of reject for CID 1341 and 1501.
* Rev 2: Modify the added note on the fly.

# Responder Needed

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 1082 | Claudio da Silva | 170.49 | The normative text in this paragraph is for the case when the AP is looking for unassociated non-AP STAs to meet the requirements of a sensing application. | Add NOTE explaining expected behavior. | ***Revised***  Agree with the commenter in principle.  *TGbf editor to make the changes shown in IEEE 802.11-23/0476r1 under all headings that include CID 1082.* |
| 1083 | Claudio da Silva | 170.49 | No normative behavior is defined for non-AP STAs on the use of the Responders Needed subfield. | Define normative behavior (how subfield is set in frames other than Probe Response). | ***Revised***  Agree with the commenter in principle.  *TGbf editor to make the changes shown in IEEE 802.11-23/0476r1 under all headings that include CID 1083* |
| 1526 | Mahmoud Kamel | 170.49 | Why the behavior of setting the Responders Needed subfield is specified for Probe Response frame only. | Remove "within a Probe Response frame" | ***Revised***  Normative behavior is defined (how subfield is set in frames other than Probe Response).  *TGbf editor to make the changes shown in IEEE 802.11-23/0476r1 under all headings that include CID 1526* |
| 1555 | Mahmoud Kamel | 170.49 | The subfield name is Responders Needed not Responder Needed, however, it makes sense to use the singular form since the Probe Response frame is a unicast frame and is eventually addressed to only one STA. This may complicate things since the Sensing element may be sent also in broadcast frames such as the Beacon frame! | Unify the naming of the Responders Needed subfield in the document. | ***Revised***  The group agrees to use ‘Responder Needed’ since it’s in a unicast Probe Response.  *TGbf editor to make the changes shown in IEEE 802.11-23/0476r1 under all headings that include CID 1555* |
| 1556 | Mahmoud Kamel | 170.49 | The Sensing element may be sent in the Beacon frame, Probe Request/Response frame and (Re)Association Request/Response frames. Why it is specified only for the Probe Response frame? | Either state all the frames where an AP may set the Responders Needed subfield, or do not specify any and keep it open. | ***Revised***  Normative behavior is defined (how subfield is set in frames other than Probe Response).  *TGbf editor to make the changes shown in IEEE 802.11-23/0476r1 under all headings that include CID 1556* |

# Resolution

**9.4.2.320 Sensing element**

*TGbf Editor: Please modify P113L31 as follows:*

The Sensing field is defined in Figure 9-1002bb (Sensing field format).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ~~Responders~~  Responder  Needed | BW | Max TX  STS ≤ 80  MHz | Max TX  STS = 160  MHz | Max TX  STS = 320  MHz | Max RX  STS ≤ 80  MHz | Max RX  STS = 160  MHz | Max RX  STS = 320  MHz |
| Bits: | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Max TX HE-LTF Repetition | Max RX HE-LTF Repetition | Max TX  HE-LTF  Total | Max RX  HE-LTF  Total | Max RX  EHT-LTF  Total | Device  Class | Full  Bandwidth UL  MU-MIMO | Max Number  of Supported  Setups as  Responder |
| Bits: | 3 | 3 | 2 | 2 | 3 | 1 | 1 | 4 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Min Time  Between  Measurements | Poll  Required | Threshold-based  Reporting | Ng = 16 | SR2SR Support | Maximum  Number of  RX Antennas | Reserved |
| Bits: | 23 | 1 | 1 | 1 | 1 | 3 | 1 |
| Figure 9-1002bb—Sensing field format *(1555)* | | | | | | | |

The ~~Responders~~ Responder Needed ~~subfield~~ field is set to 1 to indicate the need for new sensing responders, and is set to 0 to indicate that new sensing responders are not needed. *(1555)*

**11.55.1.3 Sensing session setup**

*TGbf Editor: Please modify P170L49 as follows:*

An AP may set the Responder Needed ~~subfield~~ field in the Sensing element within a Probe Response frame to 1 to indicate the need for new sensing responders, and may set to 0 to indicate new sensing responders are not needed. The Responder Needed field in the Sensing element within Association Request, Association Response, Reassociation Request, Reassociation Response, and Sensing Measurement Setup Query frames shall be set to the reserved value. *(1083, 1526, 1556)*

*Note – Upon receiving a Probe Response frame with Responder Needed field set to 1, an unassociated non-AP STA, that intends to participate in a WLAN sensing procedure, is expected to send a Sensing Measurement Setup Query frame to the AP to solicit a sensing measurement setup request. An associated non-AP STA ignores this Responder Needed field in a Probe Response frame. (1082)*

# Misc

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 1702 | Alireza Raissinia | 164.64 | Change the text "an Action or an Action No Ack frame of category Protected" to | "an Action No Ack frame of category Protected"  since the Protected Sensing Measurement frame is only protected sensing frame and not protected dual of public action frame | ***Accepted*** |
| 1844 | Michael Montemurro | 166.13 | The sentence should be clearly worded to descrobe that the PTKSA is the result of PASSN authentication. | Change "when PTKSA from PASN authentication exists" to ""when a PTKSA is established through PASN authentication." | ***Accepted***  Note: The commented text is existing 11az text, not new text adding by 11bf. |
| 1341 | Osama Aboulmagd | 166.50 | What is the rationale for assigning AC-VO for Public Action Sensing frame? Is sensing a real-time process that requires high priority. What if there real-time service such as voice with small frames and is delayed due to the trasnmission of a Sensing Measurement frame which can be a long frame. | As in comment. Justify why assigning AC-VO to Public Sensing Action frames. | ***Rejected***  The ‘long’ frame in sensing is measurement report frame, which is sent during the dedicated TXOP used for sensing and shall be sent via SIFS interval. Other sensing frames are considerably short. AC-VO ensures that STA scan period is not impacted by delayed response from AP.    Furthermore, the comment does not propose any change to the spec. |
| 1501 | Albert Petrick | 168.06 | Table 11-29a Sensing Frame Exchange Timeout is a value of 20 msec. What is the timeout value duration of 20 ms based on? Add Note clarifying why the timout value is 20 ms. | As commented | ***Rejected***  20ms timeout value is chosen so that the unassociated STA scan period is not impacted by delayed response from AP.  Furthermore, the comment is asking a question and not providing specific change. |

# SP

Do you support resolutions to the following 9 CIDs and incorporate the text changes into the latest TGbf draft: 1082, 1083, 1526, 1555, 1556, 1702, 1844, 1341, 1501, in 11-23/0476r2.

Y/N/A