IEEE P802.11
Wireless LANs

|  |
| --- |
| **Proposed resolutions for editorial comments on D1.0 - Part 4** |
| Date: 2022-05-10 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Claudio da Silva | Meta Platforms, Inc |  |  | claudiodasilva@meta.com |
|  |  |  |  |  |

Abstract

This document contains proposed resolutions for editorial comments on D1.0 (LB272). The text used as reference is D1.0.

CIDs: 1025, 1786, 1846, 1791, 1943, 1790, 1331, 1974, 1006, 1792, 1787, 1845, 1812, 1523, 1480, 1126, 1081

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 1025 | 9.3.3.5 | 85.35 | Not sure why the MIB variable is called "dot11WLANSensingImplemented" and not "dot11SensingImplemented" to keep constency with the DMG MIB variables | Rename "dot11WLANSensingImplemented" to "dot11SensingImplemented" in the whole document |
| 1786 | 11.55.1 | 167.07 | "WLAN" in the procedure name is not necessary and somewhat misleading. While the sensing is performed by STAs on the WLAN, it is not the WLAN that is being sensed nor is it the WLAN that is doing the sensing. Let's just call it the "Sensing procedure" | Change title and all occurances of "WLAN sensing procedure" to "sensing procedure" (capitalized first word in title and at start of a sentence). |
| 1846 | 11.55.1 | 167.07 | WLAN sensing consists of mutliple procedures and is not on monolithic procedure. Rather than refer to sensing as "WLAN sensing procedure", refer to the procedures as "WLAN sensing" | Change "WLAN sensing procedure" to "WLAN sensing" throughout the draft. Note to editor "I searched through the draft for the term and it looked as though this change could be made globally. |

**Proposed resolution**: Revised

**Discussion**: The terminology used in the draft, including the terms WLAN sensing and sensing procedure, was discussed in <https://mentor.ieee.org/802.11/dcn/23/11-23-0538-02-00bf-lb272-cr-for-sensing-terminologies.docx> .

**Modifications:** TGbf Editor – Implement the changes defined in <https://mentor.ieee.org/802.11/dcn/23/11-23-0538-02-00bf-lb272-cr-for-sensing-terminologies.docx> .

(Note: No further modifications are required.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 1791 | 11.55.1.2 | 170.11 | "STA" is a generic term for all STAs (not just sensing STAs) so this statement is placing a requirement on everything and is in conflict with the optionality of this feature. | Qualify the STA for which this and subsequent requirements apply. For example, "A sensing STA shall support N\_b values of 8 and 10..."< "A sensing STA with 4 or fewer transmit attennas shall...", etc. |
| 1943 | 11.55.1.2 | 170.14 | In the Dependencies section, the last 6 statements should have the condition of "dot11WLANSensingImiplemented field being true", since they apply to only non-DMG sensing features. | Before line 14 insert: "The following requirements apply to a STA in which dot11WLANSensingImplemented is true." |

**Proposed resolution**: Revised

**Discussion**: This issue was discussed in <https://mentor.ieee.org/802.11/dcn/23/11-23-0514-02-00bf-comment-resolution-in-lb272-for-reporting-cid-part-1.docx> and approved by the TG. For reference, this section of the draft now reads:



…



**Modifications:** TGbf Editor – Implement the changes defined in <https://mentor.ieee.org/802.11/dcn/23/11-23-0514-02-00bf-comment-resolution-in-lb272-for-reporting-cid-part-1.docx>

(Note: No further modifications are required.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 1790 | 170.11 | It is not feasible for all STAs to retroactively set this field to 0. The Extended Capabilities element expands in length as new fields are added, so older implementations may not even have this field present. | Delete this statement. It is sufficient to have a shall statement for a sensing STA to set the field to 1. By implication, a STA the does not include this field or sets it to 0 is not a sensing STA. | ACCEPTED |
| 1331 | 170.11 | "A STA in which dot11WLANSensingImplemented is false shall set the WLAN Sensing field of the Extended Capabilities element to 0." Do we need this sentence? A legacy STA will not have dot11WLANSensingImplemented and will not set the WLAN Sensing field anyway. | Delete the sentence and add "Otherwise, the STA sets the WLAN Sensing field to 0." at end of the previous paragraph. | REVISED.**Modifications:** In 170.11, delete "A STA in which dot11WLANSensingImplemented is false shall set the WLAN Sensing field of the Extended Capabilities element to 0." |

**Discussion**: For reference,



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Page** | **Comment** | **Proposed change** | **Proposed resolution** |
| 1974 | 170.49 | It is not the meaning of "1" and "0" that is optional it is the the use of the "indication of a need for new sensing responders" that is optional. Also, the setting to 1 and the setting to 0 cannot both be optional. | Change to "An AP may indicate the need for new sensing responders by setting the Responder Needed subfield in the Sensing element in a Probe Response frame to 1." (the default is setting to 0, i.e., not indicating a need for new sensing responder -- no need to mention this). | ACCEPTED |
| 1006 | 170.49 | The second portion of the sentence is unclear because it is missing a noun. | Rephrase as "An AP may set the Responder Needed subfield in the Sensing element within a Probe Response frame to 1 to indicate the need for new sensing responders, and may set the subfield to 0 to indicate new sensing responders are not needed." | REVISED.**Modifications:** Change 170.49.52 to "An AP may indicate the need for new sensing responders by setting the Responder Needed subfield in the Sensing element in a Probe Response frame to 1." |

**Discussion**: Text referred to by the commenters is:



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 1792 | 11.55.1.2 | 170.11 | It is not immediately apparent what the bandwidth of a STA is. Be more specific. We could narrow this down a bit by making a "sensing STA" something modern; like an HE STA or an EHT STA (add a statement: "A sensing STA is an EHT STA"). And then saying something like "a sensing STA that is not a 20 MHz only HE STA shall support..." BTW, this inheretence statement is necessary since it is implied by some of the other statements (support for TB operation) that it is at least an HE STA. | As in comment |

**Proposed resolution**: Revised

**Discussion**: I believe the commenter refers to the following paragraphs (wrong page number)



The definition that a sensing procedure “allows a high-efficiency (HE) station (STA) or extremely high throughput (EHT) STA to perform sensing” has been proposed to be included in the draft in <https://mentor.ieee.org/802.11/dcn/23/11-23-0633-02-00bf-lb272-crs-for-cid-1477and-2053.docx> and was supported by the TG.

**Modifications:** TGbf Editor – Change 170.20-25 as follows:

A STA with five or more transmit antennas ~~and a bandwidth of 80 MHz~~ shall support an Ng value of 4 and may optionally support an Ng value of 16 in the Sensing Measurement Report frame if the bandwidth of the SI2SR, SR2SI, or SR2SR NDP used to obtain the reported sensing measurements is 80 MHz.

A STA with five or more transmit antennas ~~and a bandwidth greater than or equal to 160 MHz~~ shall support an value of 8 and may optionally support an Ng value of 16 in the Sensing Measurement Report frame if the bandwidth of the SI2SR, SR2SI, or SR2SR NDP used to obtain the reported sensing measurements is greater than or equal to 160 MHz.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 1787 | 11.55.1.1 | 167.12 | This description is pointless. One can assume that a WLAN sendins procedure is for WLAN sensing, but what is WLAN sensing? Be more descriptive. Also, use the definite article (the) -- there is only one sensing procedure. | Change to "The sensing procedure allows two non-DMG STA to obtain channel state measuments that might be used to infer the range, velocity and motion of objects in an area of interest." |
| 1845 | 11.55.1.1 | 167.11 | The statement is self-referential | Change "to perform WLAN sensing" to "to perform sensing" |

**Proposed resolution**: Revised

**Discussion**: Text referred to by the commenters is:



* WLAN sensing, sensing procedure… are already defined in Clause 4, where more detailed descriptions are provided. To avoid duplication and comments, I suggest to delete the sentence referred to by the commenters in Clause 11.

**Modifications:** TGbf Editor – Delete the sentence in 167.12

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 1812 | 11.55.1.3 | 170.49 | The subfield name should be 'Responders Needed' | Change to 'Responders Needed |
| 1523 | 11.55.1.3 | 170.49 | s' is missing in the name of the subfield 'Responder Needed' | Change the subfield name to 'Responders Needed' |

**Proposed resolution**: Revised

**Discussion**: Text referred to by the commenters is:



This issue was discussed in <https://mentor.ieee.org/802.11/dcn/23/11-23-0476-03-00bf-lb272-ost-misc.docx> and the group has approved the following modification:



**Modifications:** TGbf Editor – Implement the changes defined in <https://mentor.ieee.org/802.11/dcn/23/11-23-0476-03-00bf-lb272-ost-misc.docx>

(Note: No further modifications are required.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 1480 | 9.6.21.15 | 163.55 | I wonder if this sentence could be reworded a bit to be more clear: "The Terminate All SBP Coordinated Monostatic Setups subfield is set to 1 to indicate that the STA requests to terminate using under SBP all sensing measurement setups of the sensing type Coordinated Monostatic; otherwise, it is set to 0." | consider changing to: "The Terminate All SBP Coordinated Monostatic Setups subfield is set to 1 to indicate that the STA requests to terminate all SBP sensing measurement setups of the sensing type Coordinated Monostatic; otherwise, it is set to 0." |

**Proposed resolution**: Revised

**Discussion**: Text referred to by the commenters is:



**Modifications:** TGbf Editor – Replace 177.63 with:

The Terminate All SBP Coordinated Monostatic Setups subfield is set to 1 to indicate that the STA requests to terminate all sensing measurement setups established in response to a DMG SBP procedure request of the sensing type Coordinated Monostatic; otherwise, it is set to 0.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 1126 | 11.55.1.5.2.1 | 177.63 | Suggestion to improve writing | Replace "STA3 does not respond... instance" with "Since STA3 did not respond to the polling, it does not participate in the remaining phases of the TB sensing measurement instance." |

**Proposed resolution**: Revised

**Discussion**: Text referred to by the commenters is:



**Modifications:** TGbf Editor – Replace 177.63 with:

Since STA3 did not respond to the polling, it does not participate in the TB sensing measurement exchange.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed change** |
| 1081 | 9.4.2.36 | 107.27 | Suggested editorial changes | The Sensing field is set to 1 to indicate that the AP represented by this BSSID has the WLAN Sensing field within the Extended Capabilities element set to 1. The Sensing field is set to 0 to indicate that the reported AP has the WLAN Sensing field within the Extended Capabilities element set to 0, or that the WLAN Sensing field of the reported AP is not available to the reporting AP. |

**Proposed resolution**: Revised

**Discussion**: Text referred to by the commenters is:



**Modifications:** TGbf Editor – Replace 107.27-31 with:

The Sensing field is set to 1 if the AP identified by this BSSID is a sensing STA. The Sensing field is set to 0 if the AP identified by this BSSID is not a sensing STA or if information about its support of the WLAN sensing procedure is not available.