IEEE P802.11
Wireless LANs

|  |
| --- |
| Comment Resolution for CIDs Related to TB Sensing Measurement Instance |
| Date: 2022-07-26 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Chris Beg | Cognitive Systems | Waterloo ON, Canada |  | chris.beg@cognitivesystems.com |
|  |  |  |  |  |

Abstract

This document proposes resolutions to the following CC40 CIDs: 125, 863, 866, 167, 92, 195, and 625.

R0: Initial resolution proposals.

R1: Feedback from offline discussion with commentators included. Removed CID #169.

R2: Updated resolutions relative to D0.2. Review with Instance TTT members.

R3: typo fix: inorder -> in order

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 125 | 11.21.18.6.2 | 69.62 | "all the STAs that will use the NDP sent by the AP." is a bit vague. Any STA can "use" the NDP for any purpose it wants, even if it's not included in the STA Info fields of the NDPA. | Clarify | RevisedClarifying text added. |
| 863 | 11.21.18.6.2 | 69.62 | Unclear intent | Change text to:"The STA Info fields within the Sensing NDP Announcement frame specify all the STAs that will use the NDP sent by the AP to perform sensing measurements." | RevisedClarifying text added. |

**Note:**

Page 69 in D0.1 has been moved to page 85 in D0.2. The relevant line numbers are unchanged.

***TGbf Editor: Modify the text in D0.2 85.58-62 as follows:***

The AP shall transmit a Sensing NDP Announcement frame to one or more STAs that are sensing receivers and that have responded in the polling phase of the TB sensing measurement instance, followed by Initiator-to-Responder (I2R) NDP transmission after a SIFS. The STA Info fields within the Sensing NDP Announcement frame specify ~~all the~~ STAs that shall perform sensing measurements on ~~use~~ the NDP sent by the AP (#125, #763, #863).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 866 | 11.21.18.6.3 | 70.13 | Unclear intent | Change text to:"Any STA addressed by a User Info field in a Sensing Sounding Trigger frame shall transmit an NDP one SIFS after receiving the Sensing Sounding Trigger frame." | Accept |

**Notes:**

Page 70 in D0.1 has been moved to page 86 in D0.2. The line number is unchanged.

By accepting CID #866, the D0.2 text in P86.9-16 will be modified as follows:

The AP shall transmit a Sensing Sounding Trigger frame to one or(#865) more STAs that are sensing transmitters

and that have responded in the polling phase of the TB sensing measurement instance to solicit

Responder-to-Initiator (R2I) NDP transmission(s). The Sensing Sounding Trigger frame shall allocate

uplink resources for one or more STA’s R2I NDP transmission covering the full bandwidth. Any STA

addressed by a User Info field in a Sensing Sounding Trigger frame shall transmit an NDP one SIFS after receiving

the Sensing Sounding Trigger frame (#866).

| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- |
| 92 | 11.21.18.6.4 | 70.33 | The text in this paragraph can be simplified given that the reporting phase only occurs if the AP/sensing initiator acted as a sensing transmitter in the sensing measurmement instance in which measurements were taken. As a result, the constructions "sensing transmitter which is a sensing initiator" and "sensing receiver which is a sensing responder" are not necessary and can be simplified (with "sensing initiator" and "sensing receiver", respectively). Also, although this is implicitly defined, explicitly defining that the reporting phase is only present if the AP/sensing initiator acted as a sensing transmitter in the sensing measurmement instance in which measurements were taken. | Replace the paragraph with: "When negotiated, the sensing initiator shall send a Sensing Trigger Report frame during the reporting phase and assign RUs to the sensing responder to obtain a Sensing Measurement Report frame containing sensing measurement results. The sensing responder shall provide a Sensing Measurement Report frame in the assigned RUs with either results obtained from the I2R NDP of the current measurement instance, when negotiated to deliver immediate feedback reporting, or results obtained from the I2R NDP of the previous measurement instance, when negotiated to deliver delayed feedback reporting. Sensing measurement results obtained in a sensing measurement instance are only reported if the sensing initiator assumed the role of sensing transmitter in the instance, and if reporting was requested in the Sensing Measurement setup phase." | RevisedAgree with commentor. Several comments applicable to the same subclause were combined. |
| 195 | 11.21.18.6.4 | 70.33 | Regarding "When negotiated, the sensing transmitter which is a sensing initiator shall send a Sensing Trigger Report frame...": This may not be fully correct when there is responder-to-responder sensing in a TB sensing measurement instance, where the sensing initiator, which is an AP, is neither the sensing transmitter nor receiver. Nonetheless, if negotiated, in this scenario the sensing initiator still needs to transmit a Trigger frame to solicit measurement report from the sensing receiver. | Remove the sensing transmitter wording since it may not always be true, particularly when there is respodner-to-responder sensing. That is, change the sentence to "When negotiated, the sensing initiator shall send a Sensing Trigger Report frame...". | RevisedAgree with commentor. Several comments applicable to the same subclause were combined. |
| 625 | 11.21.18.6.4 | 70.33 | It's not clear what has been negotiated, report or not, or need the trigger or not? | Change "When negotiated" to "When 'obtain report' subfield in the corresponding measurement setup parameters is set to 1" | RevisedAgree with commentor. Several comments applicable to the same subclause were combined. |

**Notes:**

Document 22-0931-02 details a modification to D0.1 70.29-33 to address editorial changes as follows:

The reporting phase is only present if the Sensing Measurement Report subfield within the Sensing Measurement Setup Request frame that resulted in the TB sensing measurement instance is set to 1.  In this case, the ~~The~~ transmission of Sensing Measurement Report frame is initiated by an MLME primitive. The sensing measurement reporting can be either immediate or delayed.

This change was approved by **Motion 106**. Considering the modification when addressing 625, a portion of the text requested has been already added. However, a slight modification has been recommended to make the text normative.

***TGbf Editor: Modify the text in D0.2 86.29-41 as follows:***

The reporting phase ~~is only~~shall only be present for a responder which is a sensing receiver if the Sensing Measurement Report subfield within the Sensing Measurement Setup Request frame that resulted in the TB sensing measurement instance is set to 1(#92, #199, #625). In this case, the transmission of Sensing Measurement Report frame ~~is~~shall be initiated by an MLME primitive. The sensing measurement reporting ~~can~~may be either immediate or delayed.

In the reporting phase(#199), the sensing ~~transmitter which is a sensing~~ initiator shall send a Sensing Report Trigger frame(#401, #464, #196) ~~during the reporting phase and~~ assigning RUs to one or more~~the~~ sensing ~~receiver which is a sensing~~ responder(s) in order to obtain a Sensing Measurement Report frame containing sensing measurement results (#195, #625). The sensing ~~receiver which is a sensing~~ responder(s) shall provide a Sensing Measurement Report frame in the assigned RUs with either results obtained from the I2R NDP of the current measurement instance, when negotiated to deliver immediate feedback reporting, or results obtained from the I2R NDP of the previous measurement instance, when negotiated to deliver delayed feedback reporting. Sensing measurement results obtained in a sensing measurement instance shall be reported during the reporting phase if the sensing responder assumed the role of sensing receiver in the instance, and if reporting was requested in the measurement setup phase (#92).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 167 | 11.21.18.6.4 | 70.26 | There are some scenarios where the reporting phase is not the last phase of a TB sensing measurement instance (See Example 2 and Example 5 in Figure 11-41c). | Change the sentence to "The reporting phase is the last phase of some TB sensing measurement instances." | RevisedSuggest removing identified text, content present elsewhere. |

**Notes:**

* Page 70 in D0.1 has been moved to page 86 in D0.2. The line numbers are unchanged.
* Given proposed text in D0.2 86.29-41 highlighted above, text in D0.2 86.26-27 does not add information.
* Point highlighted by commentator regarding ordering of phases is compensated for in 86.29-41 text, as it simply states“in the reporting phase”.
* Proposal to completely remove D0.2 86.26-27.

***TGbf Editor: Modify the text in D0.2 86.26-27 as follows:***

~~The last phase of a TB sensing measurement instance is the reporting phase. In the reporting phase of a TB sensing measurement instance, sensing measurement results are reported~~ (#167).

**References:**

[1] Draft P802.11bf\_D0.1

[2] 11-22-0931-02-00bf-resolutions-for-editorial-comments-in-cc40-part-4.docx

[3] Draft P802.11bf\_D0.2