IEEE P802.11  
Wireless LANs

|  |
| --- |
| **Update of Sensing Poll Trigger frame** |
| **Date:** 2023-01-11 |
| **Author(s):** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Affiliation** | **Address** | **Phone** | **Email** |
| Dongguk Lim | LG Electronics | 19, Yangjae-daero 11gil, Seocho-gu, Seoul 137-130, Korea |  | dongguk.lim@lge.com |
| Insun Jang |  | insun.jang@lge.com |
| Sanggook Kim |  | sanggook.kim@lge.com |
| Jinsoo Choi |  | js.choi@lge.com |

Abstract

* This submission proposes an update of text for sensing Trigger frame to apply the passed motion 162.

This amendment is based on the 11bf D0.5.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: updated to reflect the received comments.

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGbf D0.5 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbf D0.5 Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbf Editor: Editing instructions preceded by “TGbf Editor” are instructions to the TGbf editor to modify existing material in the TGbf draft. As a result of adopting the changes, the TGbf editor will execute the instructions rather than copy them to the TGbf Draft.***

Discussion:

In the previous meeting, the following motion has been approved.

**Motion 162**

* + **Move to approve resolutions to the following CIDs listed in the following document and incorporate the text changes into the latest TGbf draft:**
  + CID : 299, 308, 316, 481, 93, 141, 145, 430, 611, 774, 463, 815, 877, 21, 570, 912
  + as specified in 11-22/1385r9 ‘CC40 sensing session part 3’
  + **Move: Chaoming Luo Second: Dibakar Das**
  + **Result:** Approved by unanimous consent

Note：

* + - Related document 22/1385r9
    - SP Result: Unanimous consent

And, as a result of the above motion, the following text has been added in the 11bf D0.5.



As shown above, the comeback subfield is defined in the User Info field in the Sensing Polling Trigger frame but it was not applied to the Sensing Poll Trigger frame.

Therefore, to apply the comeback subfield approved by the 11bf TG motion to the Sensing Polling Trigger frame, we can consider the follows.

The Comeback subfield is defined in the User Info field of the sensing Polling Trigger frame. Since the Sensing Polling Trigger frame is used to solicit the CTS frame from the sensing responder(s), the UL DCM subfield which is defined in the basic trigger frame is not used. So, we can reuse this bit to define the Comeback subfield and had a consensus for that in the previous meeting. Thus, we can define the Comeback subfield by using this bit. Since it just uses one bit in the User Info field, we don’t need to add an additional subfield such as the Trigger Dependent User Info subfield in the Sensing Polling Trigger frame format.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0-B11 | B12-B19 | B20 | B21-B24 | B25 | B26-B31 | B32-B38 | B39 |
|  | AID12/USID12 | RU Allocation | UL FEC Coding Type | UL HE-MCS | Comeback | SS Allocation /  RA-RU Information | UL Target Receive Power | Reserved |
| Bits | 12 | 8 | 1 | 4 | 1 | 6 | 7 | 1 |

1. Figure 9-98b—User Info field for Sensing Poll Trigger frame

***TGbf Editor : Please modify the following subclasue 9.3.1.22.14.1 as follows.***

9.3.1.22.11.1 Sensing Poll Trigger frame

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0-B11 | B12-B19 | B20 | B21-B24 | B25 | B26-B31 | B32-B38 | B39 |
|  | AID12/USID12 | RU Allocation | UL FEC Coding Type | UL HE-MCS | Comeback | SS Allocation /  RA-RU Information | UL Target Receive Power | Reserved |
| Bits | 12 | 8 | 1 | 4 | 1 | 6 | 7 | 1 |

The format of the User Info field in the Sensing Poll Trigger frame is defined in Figure 9-xxxx (User Info field format for Sensing Poll Trigger frame).

1. Figure 9-98b—User Info field for Sensing Poll Trigger frame

The AID12/USID12 subfield carries either the 12 LSBs of the AID for an associated STA or the 12 LSBs of the USID for an unassociated STA. The RU Allocation, UL FEC Coding Type, UL HE-MCS, SS Allocation/RA-RU Information, UL Target Receive Power subfields are identical to the corresponding subfield in the Basic Trigger frame; see 9.3.1.22 (Trigger Frame format.)

The Comeback subfield indicates performing a new Sensing Measurement Setup for an unassociated non-AP STA. The Comeback subfield is set to 1 to indicate that the AP intend to perform a new sensing measurement setup with this unassociated non-AP STA. Otherwise, the subfield is set to 0.

The Trigger Dependent User Info subfield is not present in the Sensing Poll Trigger frame.

***TGbf Editor : Please modify the following text in P150L50 of D0.5 as follows.***

If the AP intends to request from one of the ~~a sensing responder which is an~~ unassociated non-AP STAs in this TB sensing measurement instance to participate in another sensing measurement setup as a sensing responder, the AP may set the Comeback subfield of the corresponding User Info field in the Sensing Polling Trigger frame ~~in a TB sensing measurement instance~~ to 1.

After reception of a Sensing Polling Trigger frame with the Comeback subfield of the corresponding User

Info field set to 1, ~~a~~ the unassociated non-AP STA should transmit a Sensing Measurement Setup Query frame to the AP outside the current sensing availability window(#93, #141, #145, #430, #611, #774).