IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| LB272 Resolutions for DMG CIDs | | | | |
| Date: June 2, 2023 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | Email |
| Ning Gao | OPPO |  |  | gaoning1@oppo.com |
|  |  |  |  |
|  |  |  |  |

Abstract

This submission proposes resolutions to the following CIDs:

* 1312, 1316

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

Revisions:

* Rev 0: Initial version of the document.

**Comments:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 1312 | 9.4.2.333 | 141.26 | ‘A value of 0 indicates that the sensing responder does not transmit any sounding PPDUs.' is useless. Because, every sensing responder do send at least one DMG monostatic sensing PPDU in each instance. | Delete this sentence. | **Accepted.** |
| 1316 | 9.4.2.325.3 | 125.41 | Generally, the power consumption of DMG devices is much higher than that of sub-7GHz devices, which will seriously affect the battery life of portable DMG sensing devices, such as assistive devices for the visually impaired. In D1.0, the DMG Sensing Scheduling subelement only define a constant periodicity to perform sensing. But sometimes, a sensing target may be out of range, during which a high sensing periodicity is not needed. So, it would be more energy efficient for DMG devices to dynamically adjust the periodicity or duty cycle of sensing. | Design relevant procedure and modify the relevant frames to support dynamically adjusting the periodicity or duty cycle of sensing. Submission will be provided. | **Revised.**  Agree with the commenter in principle.  TGbf Editor make changes as in doc.: 11-23/0942r0. |

**Discussion**

It is true that the DMG sensing costs more energy than sub-7GHz sensing and the DMG sensing devices can be portable devices with limited power. So, energy saving is essential for DMG sensing. Although the DMG Sensing Scheduling subelement in D1.0 only specifies a fixed scheduling for a DMG sensing measurement setup, the sensing initiator can still achieve a flexible sensing scheduling by sending or not sending a DMG Sensing Request frame in each instance. Therefore, the only necessary information for energy saving is whether or not the sensing initiator will request a sensing responder to participate in the next one or more instances. This information helps the sensing responder to save more power.

**9.3.1.25.5 DMG Sensing Request**

***TGbf Editor: Please modify the Figure 9-110a—TDD Beamforming Information field format for a DMG Sensing Request as follow and add the following paragraph at the end of this subclause.***



The Num of Absent Instances field indicates the number of consecutive DMG sensing instances that the addressed STA do not need to participate from the next DMG sensing instance.

SP: Move to approve resolutions to CID 1312, 1316 as specified in doc.: 11-23/0942r0 and incorporate the text changes into the latest TGbf draft.