IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 802.11  [Resolutions to CID #1015, 1145, 1384 and 1506  (relative to IEEE 802.11 REVmd D1.0) | | | | |
| Date: 2018-05-07 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | Email |
| Ganesh Venkatesan | Intel Corporation | 2111 NE 25th Ave, Hillsboro, OR 97124 | 503 334 6720 | [ganesh.venkatesan@intel.com](mailto:ganesh.venkatesan@intel.com) |

**Abstract**

This submission proposes resolutions to CIDs 1015, 1145, 1384 and 1506.

History:

R0: Initial Version

R1: added CID #1145

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1145 | Yongho Seok | 9.4.2.166 | 1265 | 38 | An S1G STA can use the Fine Timing Measurement procedure.  Add S1G PPDU format into Table 9-272 (Format And Bandwidth field). | Add S1G PPDU format into Table 9-272 (Format And Bandwidth field). | FTM | REVISE |

**Discussion:**

11.22.6.3 8th paragraph describes what happens when the FTM negotiation is successful and should only describes what is included in the initial FTM frame (the response to the initial FTM Request from the initiator) contains. It should not be describe what was included in the initial FTM Request.

**Resolution: Revise. Delete the first sentence from the first bullet of paragraph 8 in 11.22.6.3.**

**REVISE:**

***Modify paragraph 7 of Cl. 11.22.6.3 as shown below:***

The initiating STA shall indicate, in the Format and Bandwidth field, a format and bandwidth that it  
supports.

***Delete the first sentence of the first bullet in P2161L63-64 Cl. 11.22.6.3 as shown below:***

If the request was successful

—The responding STA shall indicate, in the Format and Bandwidth field, a format and bandwidth that it supports. The responding STA should indicate the same format and bandwidth in the Format and Bandwidth field as that requested by the initiating STA, if the responding STA supports this. The responding STA shall not indicate a bandwidth wider than requested. The responding STA shall not indicate a VHT format if DMG, HT-mixed or non-HT format was requested. The responding STA shall not indicate a DMG format if VHT, HT-mixed or non-HT format was requested.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1384 | Mark RISON | 11.22.16.3 | 2184 | 51 | It is not clear what the difference is between 11.22.16.3 GCR procedures (under 11.22 WNM) and 10.25.8 GCR block ack | In 11.22.16.3 add a para "See 10.25.8 for the mechanisms by which GCR block ack operates." | GCR | Reject |

**Discussion:** 11.22.16.3.7 discusses GCR Block Ack and has a reference to 10.25.8. (P2194)

**Resolution:** REJECT

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1506 | Mark RISON | 11.22.6.4 | 2163 | 23 | It is not clear whether burst instances are the only time periods during which FTM frames may be sent | After the first sentence of the referenced subclause add "Fine Timing Measurement frames shall not be sent outside burst instances." | FTM | REVISE |

**Discussion:** The Initial Fine Timing Measurement frame is a case where the FTM frame is transmitted outside the burst instance. Amend the proposed resolution to “Fine Timing Measurement frames other than the Initial Fine Timing Measurement frame shall not be sent outside burst instances.”

**Resolution:**

**REVISE:**

***Change the first paragraph of Cl. 11.22.6.4 as shown below:***

**11.22.6.4 Measurement exchange**

The time windows during which Fine Timing Measurement frames are sent are known as burst instances. Fine Timing Measurement frames other than the Initial Fine Timing Measurement frame shall not be sent outside burst instances. The timing of the burst instances is defined by the following parameters:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1145 | Yongho Seok | 9.4.2.166 | 1265 | 38 | An S1G STA can use the Fine Timing Measurement procedure.  Add S1G PPDU format into Table 9-272 (Format And Bandwidth field). | Add S1G PPDU format into Table 9-272 (Format And Bandwidth field). | FTM | Revise |

**Discussion:** Some additional changes (beyond the proposed) are required in order to enable Fine Timing Measurement over S1G

**Resolution:**

**REVISE:**

***Update Table 9-272 – Format and Bandwidth field as shown below:***

|  |  |  |
| --- | --- | --- |
| **Field Value** | **Format** | **Bandwidth (MHz)** |
| 17 | S1G | 1 |
| 18 | S1G | 2 |
| 19 | S1G | 4 |
| 20 | S1G | 8 |
| 21 | D1G | 16 |
| 22-30 | Reserved | Reserved |

***Modify the first bullet of paragraph 8 of Clause 11.22.6.3 as shpwn below:***

The responding STA shall indicate, in the Format and Bandwidth field, a format and bandwidth that it supports. The responding STA should indicate the same format and bandwidth in the Format and Bandwidth field as that requested by the initiating STA, if the responding STA supports this. The responding STA shall not indicate a bandwidth wider than requested. The responding STA shall not indicate an HT  
format if S1G, DMG or non-HT format was requested. The responding STA shall not indicate a VHT format if S1G, DMG, HT-mixed or non-HT format was requested. The responding STA shall not indicate a DMG format if S1G, VHT, HT-mixed or non-HT format was requested. The responding STA shall not indicate a S1G format if DMG, VHT, HT-mixed or non-HT format was requested.