IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CR for Trigger frame format | | | | |
| Date: 2019-07-09 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Dibakar Das | Intel Inc | 2111 NE 25th Ave, Hillsboro, OR 97124 |  | Dibakar.das@intel.com |
| Ganesh Venkatesan | Intel Inc |  |  | ganesh.venkatesan@intel.com |
| Feng Jiang | Intel Inc |  |  | Feng1.jiang@intel.com |
| Jonathan Segev | Intel Inc |  |  | Jonathan.segev@intel.com |

Abstract

This document proposes resolution to LB 240 CIDs on 9.3.1.23: 2285, 2284, 2262, 2049, 2047, 2041, 1990, 1615, 1396, 1390, 1332, 1114.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Updated to reflect changes relative to draft 1.2.
* Rev 2: Updated

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1114 | 9.3.1.23.9 | 27 | 3 | Delete text "The Ranging Trigger frames shall be transmitted with a Trigger Frame MAC Padding Duration of 16usec"? | ISTA is able to negotiate amongst the list of padding sizes including 16us. | **Accepted.** |
| 1390 | 9.3.1.23.9 | 27 | 3 | "The Ranging Trigger frames shall be transmitted with a Trigger Frame MAC Padding Duration of 16usec." - Why is that, in 9.4.2.279 the TB Specific Parameters subelement format defines the required "Trigger Frame Padding Duration" | Remove this sentence/requirement | **Accepted.** |

**Discussion:** This text is overridden by the negotiation procedure in TB Ranging.

***TGaz editor: Delete the line in* 9.3.1.22.910** ***of draft 1.2 starting on P27L3 as (#1114, #1390):***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1332 | 9.3.1.23.9.3 | 37 | 1 | Is the user info field of a secured sounding variant has a different length from sounding sub-variant? Will that cause an issue. | as in the comment. | **Reject.**  We don’t expect it to be an issue since a STA can uniquely identify whether a TF is for secured sounding or sounding. |
| 1396 | 9.3.1.23.9.3 | 29 | 1 | Figure 9-61e - the UL Rep subfield | The UL Rep subfield should be part of the trigger depenent user info subfield. | **Revised.**  We reuse 3 bits of the UL MCS field defined in 11ax to signal UL REP. To clarify the difference from User Info field design in 11ax we add a line in the spec proposing exception for Ranging Trigger frames.  Note that 11ax already provides such exception for NFRP TFs. Also, 11ax MU-RTS TF allows many sub-fields of the User Info field to be Reserved (e.g., L MCS, UL FEC Coding Type, UL DCM) and re-interprets the value contained in RU Allocation subfield. The resolution is same as that for CIDs 2048, 2045 and 1391 mentioned in document: 11-19-0676-02-00az-cr-for-cids-on-trigger-frame-format.docx |

***TGaz editor: Modify the paragraph in 9.3.1.22.1 of 11ax draft 4.0 starting on P107L58 as (#2048, #2045, 1391, #1396):***

The User Info field is defined in Figure 9-64d (User Info field) for all Trigger frame variants except the  
NFRP Trigger frame, which is defined in 9.3.1.22.9 (NDP Feedback Report Poll (NFRP) variant) and Ranging Trigger frame ***(#2048, #2045, 1391, 1396).***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1615 | 9.3.1.23.9.5 | 29 | 18 | Table 9-25I is not referred to anywhere. Does it describe Target RSSI which is part of all the Trigger subvariants? If so, it should refer to the field as Target RSSI and not UL Target RSSI | Resolve what Table 9-25I describes -- Target RSSI or UL Target RSSI, and either fix the table or the name of the field that the table describes. Refer to the table somewhere in the text. Place the table at a more appropriate position (it does not belong in 9.3.1.23.9.5 as the value 127 refers to modes of operation that is not part of the Passive Location Sounding procedure). | **Revised.**  The Table is originally described in 11ax draft 4.0 as UL Target RSSI. In the resolution we (a) fix the location of the table and (b) use the figure number used in draft 4.0 document of 11ax, (c) clarify that this is addition to an existing table in 11ax draft 4.0. |
| 1990 | 9.3.1.23.9.5 | 37 | 17 | "UL Target RSSI" in Table 9-25l caption and heading -- no such subfield | Delete the "UL "s | **Revised.**  This field is the same field as described in Table 9-31H of 11ax draft 4.0 to which we added 11az specific text. We clarify this by using the correct Table number and location. |

***TGaz editor: Delete the Table 9-25I in P29L18.***



***Modify the Table 9-31H in* 9.3.1.22.1** ***of 11ax document draft 4.0 starting on P111L33 as (#1615):***

**9.3.1.22.1 General**

**Table 9-31H —UL Target RSSI subfield encoding *(#1615)***

|  |  |
| --- | --- |
| **UL Target RSSI subfield** | **Description** |
| 0–90 | Values 0 to 90 map to −110 dBm to −20 dBm |
| 91–126 | Reserved |
| 127 | Indicates to the STA to transmit an HE Ranging NDP or HE TB Ranging NDP response at a transmit power corresponding to its maximum transmit power for MCS 0 if the Trigger frame is of Ranging variant and Sounding or Secured Sounding or Passive Location Sounding sub-variant; otherwise, indicates to the STA to transmit an HE TB PPDU response at its maximum transmit power for the assigned MCS |

***TGaz editor: Modify the following sentence***

**9.3.1.22.910 Ranging Trigger variant (#1707)**

…

The UL Target RSSI subfield is identical to the corresponding subfield in the Basic Trigger frame  
 (9.3.1.22 Trigger Frame format.) (#1615).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 2041 | 9.3.1.23.9 | 22 | 12 | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]  There's a blank field | Delete the middle cell in F9-52?? | **Rejected.**  This has already been fixed in draft 1.2 Fig 9-61d. |
| 2047 | 9.3.1.23.9.2 | 23 | 10 | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]  "The User Info field for the HEz Uplink Sounding sub-variant is defined in Figure 9-52??." -- the baseline defines the format for all Trigger frames in Figure 9-52g so you can't just change this here | As it says in the comment | **Revised.**  This has been resolved per the resolution in document: 11-19-0676-02-00az-cr-for-cids-on-trigger-frame-format.docx  for CIDs 1391, 2045, 2260, 2263, 1393, 1394, 2261, 2421, 2048. |
| 2049 | 9.3.1.23.9.4 | 23 | 33 | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]  "The CS Required subfield in the Common Info field is set as described in 27.5.3.5 (UL MU CS 33  mechanism). " is already in the baseline. Do we need to say this again? Similar for lines around this | If we do need to say it again, we need to say it again for all the other subtypes/subvariants | **Rejected.**  This line is not present in draft 1.0. |
| 2262 | 9.3.1.23.9.3 | 28 | 25 | SAC field here should be associated to UL sounding | The SAC field provides the SAC value of the UL sounding associated with the measurement instance | **Revised.**  TGaz editor make the changes depicted by submission 11-19-1234 (as shown below). |

***TGaz editor: Modify the sentence starting on P28L1 as (#2262):***

**9.3.1.22.10.3 Secured Sounding sub-variant**

The SAC field provides the authentication information for the LTF Sequence Generation information used for the UL sounding associated with the measurement instance (see subclause 11.22.6.4.5 Transmission of a ranging NDP) ***(#2262)***.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 2284 | 9.3.1.23.9 | 27 | 1 | The table that specifies the Ranging Trigger frame variant: rename "passive location ranging" with "passive location sounding" so the term follows the same naming style as the "sounding" and "secure sounding" variants. | As in comment. Modify the spec throughout to be consistent. | **Accepted.** |

***TGaz editor: Modify an entry in Table 9-25K in P26L30 (#2284) as:***

|  |  |
| --- | --- |
| **Ranging Trigger Subtype field value** | **Ranging Trigger frame variant** |
| 4 | Passive Location Sounding ***(#2284)*** |
| 5-15 | Reserved |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 2285 |  |  |  | "The Ranging Trigger frame of Passive Location Sounding subvariant follows the definition of the Ranging Trigger frame of Sounding subvariant except that the RA field is set to the broadcast  address." This sentence implies that the RA of the Ranging Trigger frame of Sounding subvariant is not set to broadcast address, however, the ranging trigger variant sounding subvariant also sets the RA to be the broadcast address. | Modify the spec so the text is consistent. | **Revised.**  We clarify that the for Ranging Trigger frame the RA field is **always**  set to broadcast address. |

***TGaz editor: Modify sentence starting at P29L13 in* 9.3.1.22.10.5** ***as (#2285):***

The Ranging Trigger frame of Passive Location subvariant follows the definition of the Ranging  
Trigger frame of Sounding subvariant except that the RA field is always ***(#2285)***set to the broadcast address and  
the UL Rep subfield signals the number of repetitions N\_REP of the HE LTF symbols in the  
corresponding HE Ranging NDP from the STA indicated in the AID12/RID12 subfield ***(#1116)***.