IEEE P802.11`  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CR for Control frame related CIDs | | | | |
| Date: 2019-05-19 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Dibakar Das | Intel |  |  | [Dibakar.das@intel.com](mailto:Dibakar.das@intel.com) |
| Ganesh Venkatesan | Intel |  |  | Ganesh.venkatesan@intel.com |
| Feng Jiang | Intel |  |  | [Feng1.jiang@intel.com](mailto:Feng1.jiang@intel.com) |
| Jonathan Segev | Intel |  |  | Jonathan.segev@intel.com |

Abstract

This document proposes resolution to LB 249 CIDs on Section 9.3: 3013, 3014, 3015, 3102, 3283, 3355, 3389, 3016, 3017, 3827, 3888, 3324, 3434, 3962, 3287, 3435, 4004, 4005.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| **3013** | 45.18 | 9.3.1.22.10 | Mapping is not clear in table 9-31H. Is -110dBm mapped to 0 or 90 ?? | Specify the mapping better. | **Reject.**  Table 9-31H is a table in 11ax draft to which we added new interpretation for the subfield with value 127. The case corresponding to values 0 to 90 is same as in 11ax and hence is outside scope of this task group. |
| **3014** | 46 | 9.3.1.22.10 | Table in figure 9-61d.x has Reserved bit in the middle, without any reason. Pack the used bits and have ALL reserved bits at the end. | Pack the used bits and have ALL reserved bits at the end. | **Reject.**  There is no performance benefit in rearranging the location of the Reserved bit. This design is in line with other frame/field formats in REVmd where there are reserved bits in the middle (See BAR Control field format, Per TID Info sufield) |
| **3015** | 46 | 9.3.1.22.10 | Table in figure 9-61d.y has Reserved bits in the middle, without any reason. Pack the used bits and have ALL reserved bits at the end. | Pack the used bits and have ALL reserved bits at the end. | **Revised.**  There is no performance benefit in rearranging the location of the Reserved bit. This design is in line with other frame/field formats in REVmd where there are reserved bits in the middle (See BAR Control field format, Per TID Info sufield). However, we revise the figure to aggregate the two Reserved subfields into one. |
| **3102** | 46 | 9.3.1.22.10  Figure 9-61d.x and  Figure 9-61d.y | It would make the implementation of "Common Info Subfield" of the Ranging Trigger Variant" simpler and also provide TSF synchronization for the Passive TB Ranging if we align the two cases of Ranging Trigger for non-passive and passive case. | Make "Common Info Subfield" two bytes to realign both so that TSF sync can also be applied to Passive while making the NDPA also same for both Passive and non-Passive case. | **Reject.**  Since the Token field is used only for TF Ranging Poll which is also used by Passive TB Ranging, ISTAs in Passive TB Ranging can also realign the TSF. |
| **3283** | 46.6 | 9.3.1.22.10 | The Trigger Dependent Common Info subfield of the Ranging Trigger frame of subvariant Passive TB Sounding, depicted in Figure 9-61d.y, is different from the Trigger Dependent Common Info subfield for the Ranging Trigger variant, depicted in Figure 9-61d.x. This subfield is used both the TB and Passive TB Ranging. To reduce the number of options in the standard it would should make these the same. | Change the Trigger Dependent Common Info subfield for the Ranging Trigger variant, depicted in Figure 9-61d.x., to be the same as the Trigger Dependent Common Info subfield of the Ranging Trigger frame of subvariant Passive TB Sounding, depicted in Figure 9-61d.y. | **Reject.**  Equalizing the size of the two fields would increase the size of all TF used for TB Ranging by 1 byte without any clear benefit. |
| **3355** | 47.23 | 9.3.1.22.1 | Figure 9-61e shows incorrect SS Allocation and UL Target RSSI bit field lengths. | Set SS Allocation to 6 bits in length and UL Target RSSI as 7 bits in length. Please follow the defiinition in 9.3.1.22.1 | **Revised.**  Agree with the commenter. TGaz editor please make changes identified in 11-20-0788. |
| **3389** | 47.23 | 9.3.1.22.1 | Figure 9-61e shows User info field with the SS Allocation field B26 to B32, the regular User info field shows it B26 to B31, for simplicity the User info field was reused from the normal TF to the Ranging TF poll and report. Thus the SS allocation and UL Target RSSI fields needs to align as well. also refer to L.35 P.47 stating the UL Target RSSI subfield of being identical to Basic Trigger frame (which is currently not because of the field size and range) and also to secured sounding subvariant where the UL target RSSI and SS allocation is identified correctly (other subvariants as well). | Fix the SS allocation to reflect B26 to B31 (6bits) and the UL Target RSSI field to B32 to B38 (7bits) same as the 11ax User info field. | **Revised.**  Duplicate of 3355. See 11-20-0788. |
| **3016** | 48.0 | 9.3.1.22.10.3 | Use of "AID12/RSID12" is NEW!. In the spec, as far as I know, we don't use names with number of bits embedded in the name. Any real reason to start having such? | Remove the number of bits (12) from the name or use a different name. This might appear in more places | **Reject.**  P802.11az uses the same convention as used in 11ax to reflect the AID value. See Figure 9-64d User Info field format in 11ax draft 6.0 that uses the term “AID12”. |
| **3017** | 48.0 | 9.3.1.22.10.3 | Table in figure 9-61g has Reserved bits in the middle, without any reason. Pack the used bits and have ALL reserved bits at the end. | Pack the used bits and have ALL reserved bits at the end. | **Reject.**  For implementation simplicity the location of the SS Allocation and UL Target RSSI field and their sizes were left unchanged between the User Info field for Secured Sounding and User Info field for Ranging TF of subvariant Poll and Report (see Figure 9-61e). While this resulted in multiple non-adjacent Reserved bits in the same User Info field, this lowers changes an implementation needs to make to implement this type of TF. |
| **3827** | 48.0 | 9.3.1.22.10.2 | "Target RSSI" -- no such subfield | Change to "UL Target RSSI" | **Accept.**  (Note to editor: see 11-20-0788) |
| **3888** | 49.0 | 9.3.1.22.10.3 | It is not clear whether I2R rep should be same across users or not.  According to figure 27-52d if user1 Nsts=2,Nrep=2 and user2 Nsts=1,Nrep=3  Number of HELTF symbols = 2x2+1x3=7. Definition of 7 HELTF symbols is not defined in Trigger Frame and what should the value of SS\_allocation be for user1 and user2 specified to?  One option is to update Nheltf definition and add LTF offset per user or add a requirement saying Nrep should be same across users | as in comment | **Revised.**  Agreed with the commenter. See 11-20-0707r3 Section 11.22.6.4.3.3. |
| **3324** | 67 | 9.4.2.295 | Broken formula. | Replace asterisk with multiplication sign. Add closing bracket. | **Revised.**  Agree in principle. However, this has already been fixed in draft 2.2. (TGaz editor: no further action needed) |
| **3434** |  | 9.4.2.294 | The formula seems not right, for example when coun=16, B[celing((count+16)/8)\*8-1]-B(count+16)=B23-B24. It is not clear what is the result of B[value1] -B[value2] | Fix the issues. | **Revised.**  This text has already been removed in draft 2.2. (TGaz editor: no further action needed) |
| **3962** | 69 | 9.4.2.294 | the formula for specifying the padding bits is wrong  as it can yield a negative number of padding bits | On top of Padding field add form left to right:  B(count+16) B(ceiling((count+16)/8)\*8)  At the bottom of Padding field add the following formula for the number of padding bits:  (ceiling((count+16)/8)\*8-(count+16)) | **Revised.**  This text has already been removed in draft 2.2. (TGaz editor: no further action needed) |
| **3287** | 70 | 9.4.2.295 | In the 'Passive TB Ranging parameters subfield' in the 'Availability Window Information field format', depicted in Figures Figure 9-1004 and Figure 9-1005, we only communicate the BW over which the Passive TB Ranging is occuring. Is it possible that we don't need this information to be conveyed. Could it instead be possible that the Passive TB Ranging always, nominally, uses the full BW of the AP's BSS or that the PSTAs listening in to the Passive TB Ranging transmissions will be able to figure it out on its own? | If not needed, consider removing the 'Passive TB Ranging parameters subfield' in the 'Availability Window Information field format', depicted in Figures Figure 9-1004 and Figure 9-1005, and the associated text as well as Table 9-1000. | **Reject.**  The RSTA may use as nominal BW the minimum of operating BW of the ISTA and itself. Having the additional BW information provides more granular information to the PSTAs. |
| **3435** | 71 | 9.4.2.295 | Figure9-1003 is not in line with Figure9-1004. | Change the length of "Availability Window Information subfield" to 4 or 5 | **Revised.**  Agree in principle. In draft 2.2 this has been fixed to 5. (TGaz editor: no further action needed) |
| **4004** |  | 9.4.2 | Be aware of those elements, such as PASN Parameters element, having a field in variable length with no length notification can't be extended in the future amendments. | Add length notification to those variable length fields if there is a possilibility to extend the element in the future. | **Reject.**  The Length field already allows possibility of extension. The length of all the subfields of the PASN Parameters element can be determined without ambiguity. The presence of the Comeback Info and Ephemeral Public Key Length is signaled in Control field of the element. |
| **4005** |  | 9.4.2 | For example, Passive TB Ranging LCI Table element has multiple variable fields. Multiple variable fields without length notification will have a risk of misinterpretation and interoperability problem. If the group really wants to implement an element, the length should be explicitly stated for such fields. | As in comment. | **Reject.**  The element consists of variable number of subelements. However, the length and number of such fields are also indicated which makes it possible to parse them sequentially without ambiguity. |

9.3.1.22.10 Ranging Trigger variant

***TGaz editor: Revise Figure 9-61d.y in P46L19 as (#3015):***

|  |  |  |
| --- | --- | --- |
| Ranging Trigger SubType | Reserved | Sounding Dialog Token Number |

Bits: 4 6 6

Figure 9-61d.y—Trigger Dependent Common Info subfield of Ranging Trigger frame of19 subvariant Passive TB Sounding (#3015)

***TGaz editor: Revise Figure 9-61e in P47L23 as (#3355):***

B0 B11 B12 B19 B20 B21 B24 B25 B26 B31 B32 B38 B39

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| AID12/RSID12 | RU Allocation | UL FEC Coding Type | UL MCS | UL DCM | SS Allocation | UL Target RSSI | Reserved |

Bits: 12 8 1 4 1 6 7 1

Figure 9-61e—User Info field for Ranging Trigger frame of subvariant Poll and Report (#3355)

***TGaz editor: Revise the line in P48L22 as (#3827):***

The SS Allocation and UL Target RSSI subfields are identical to the corresponding subfields in the  
Basic Trigger frame (9.3.1.22 Trigger Frame format). (#3827)

**References:**