IEEE P802.11
Wireless LANs

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| LB 240 Trigger frame format CIDs |
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Abstract

This document proposes resolution to LB 240 CIDs on 9.3.1.23: 1391, 2045, 2260, 2263, 1393, 1394, 2261, 2421, 2048, 1707, 1116, 1583, 1395, 1397, 1424.

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1391 | 9.3.1.23.9 | 27 | 14 | Figure 9-61c - why change the user info field for the ranging trigger type and then change it back in the subtypes? | Keep the user info field as is and declare some of its elements reserved in the ranging trigger subtypes definition, can add extra fields in the trigger dependent user info. | **Revised.** We keep the same User Info field format as used in 11ax for Ranging Trigger frames of subvariantsPoll andReport. For Ranging Trigger frames of subvariants Sounding and Secured Sounding we reuse 3 bits of the UL MCS field to signal UL REP and mark other unused fields as reserved. We add a line in the spec proposing exception to User Info field for Ranging Trigger frames similar to NFRP TFs. |
| 2045 | 9.3.1.23.9.1 | 23 | 1 | [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 Per User Info field in the HE Poll Trigger sub-variant is identical to the format of the Per User Info field in the Basic Trigger Frame (see Section 9.3.1.23.1)" -- all Trigger frames have the same User Info field. 9.3.1.23.1 is about the TriggerDependent User Info subfield | As it says in the comment | **Revised**We add a line in the spec proposing exception to User Info field for Ranging Trigger frames similar to NFRP TFs. |
| 2260 | 9.3.1.23.9.1 | 28 | 3 | UserInfo field for Poll Sub-Variant is not defined correctly | UserInfo field in Figure 9-61c doesn't serve the purpose as it doesn't have RU-allocation, Nss, MCS, FEC etc. UserInfo field similar to basic trigger frame should be added. | **Revised**We revise Figure 9-61c to clarify allocations for RU-allocation, NSS, MCS, FEC.  |
| 2263 | 9.3.1.23.9.4 | 29 | 10 | UserInfo field for Report Sub-Variant is not defined correctly | UserInfo field in Figure 9-61c doesn't serve the purpose as it doesn't have RU-allocation, Nss, MCS, FEC etc. UserInfo field similar to basic trigger frame should be added | **Revised**We revise Figure 9-61c to clarify allocations for RU-allocation, NSS, MCS, FEC. |
| 1393 | 9.3.1.23.9.2 | 28 | 5 | "The Trigger Dependent User Info subfield is present in the Sounding sub-variant of the Ranging Trigger frame." - There is a figure modifying the User Info field, but no actual trigger dependent user info field is shown. | Since the User Info field shown here is a subset of the basic trigger's user info field, simply declare that some subfields are reserved in the user info field; no trigger depedent user info subfield is present | **Revised** **Agree in principle.**Added text clarifying that the Trigger Dependent User Info subfield is not present in the Sounding sub-variant of the Ranging Trigger frame. |
| 1394 | 9.3.1.23.9.2 | 28 | 5 | "The Trigger Dependent User Info subfield is present in the Sounding sub-variant of the Ranging Trigger frame." - There is a figure modifying the User Info field, which is not the trigger dependent user info field. | The only new subfield is "UL Rep", which should be moved into the trigger dependent user info subfield, otherwise just declare unused elements of the user info field as reserved. | **Revised.** We keep the UL Rep as it is. However, we add a line clarifying the Trigger Dependent User Info subfield is not present in the Sounding sub-variant of the Ranging Trigger frame. |
| 2261 | 9.3.1.23.9.2 | 28 | 5 | Text says Trigger Dependent UserInfo field for Sounding sub-variant is present but its not defined anywhere | Either figure 9-61d should be changed to trigger dependent userinfo field or add text saying trigger dependent userinfo field is not present | **Revised. Agree in principle.** Added text clarifying that the Trigger Dependent User Info subfield is not present in the Sounding sub-variant of the Ranging Trigger frame. |
| 2421 | 9.3.1.23.9.2 | 28 | 5 | It says "The Trigger Dependent User Info subfield is present in the Sounding sub-variant of the Ranging Trigger frame." But there is no figure for that subfield nor the description of the subfield. What will it be? | If it is not present, change the text to read "The Trigger Dependent User Info subfield is not present ...".If it is really present, add a figure for the Trigger Dependent User Info subfield for the Sounding sub-variant of the Ranging Trigger frame or add that subfield in Ifugre 9-61d and add a description of the fields thereafter. | **Revised. Agree in principle.** Added text clarifying that the Trigger Dependent User Info subfield is not present in the Sounding sub-variant of the Ranging Trigger frame. |
| 2048 | 9.3.1.23.9.3 | 23 | 17 | [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 Per User Info field in the HE Poll Trigger sub-variant is identical to the format of the Per User Info field in the Basic Trigger Frame (see Section 9.3.1.23.1)" -- all Trigger frames have the same User Info field. 9.3.1.23.1 is about the TriggerDependent User Info subfield | As it says in the comment | **Revised.** We keep the same User Info field format as used in 11ax for Ranging Trigger frames of subvariantPoll. For Ranging Trigger frames of subvariants Sounding and Secured Sounding we reuse 3 bits of the UL MCS field to signal UL REP and mark other unused fields as reserved. We add a line in the spec proposing exception to User Info field for Ranging Trigger frames similar to NFRP TFs. |

Proposed Resolution: **Revised.**

**Discussion:** We keep the same User Info field format as used in 11ax for Ranging Trigger frames of subvariantsPoll andReport. For Ranging Trigger frames of subvariants Sounding and Secured Sounding however, we reuse 3 bits of the UL MCS field to signal UL REP. Since this violates the 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.

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

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)***

***TGaz editor: Change Fig. 9-61c as (#***2048, 2263, 2260, 1391)***:***

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

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| AID12/RID | ***RU Allocation*** | ***UL FEC Coding Type*** | ***UL MCS*** | ***UL DCM*** | ***SS Allocation*** | ***UL Target RSSI*** | ***Reserved*** |

 Figure 9-61c—User Info field for Ranging Trigger Frame of subvariant Poll and Report ***(#***2048, 2263, 2260, 1391).

***TGaz editor: Modify the paragraph starting on P26L12 as (#1391):***

The Trigger Subtype field value in the Trigger Dependent Common Info field of the Ranging Trigger frame (Table XXXX Ranging Trigger subtype field encoding) signals the Ranging Trigger frame subvariants ***(#1391)***.

***TGaz editor: Modify the paragraph starting on P26L22 as (#1391):***

The value of the Ranging Trigger Subtype for the Ranging Trigger frame variant is defined in
Table9-25k ***(#1391):***.

***TGaz editor: Delete the paragraph starting on P27L6 (#1391):***

***TGaz editor: Modify the paragraph starting on P27L14 as (#2048, 1391):***

The format of the User Info field in the Ranging Trigger frame of Poll and Report subvariants is defined in Figure 9-61c User Info field for Ranging Trigger Frame. The format of the User Info field in the Ranging Trigger frame of Sounding and Secured Sounding subvariants is defined in Figure 9-61d and Figure 9-61e respectively. The AID12/RID12 subfield carries either the 12 LSBs of the AID for an associated ISTA or the 12 LSBs of the RID for an unassociated ISTA ***(#2048, 1391)***.

***TGaz editor: Modify the section header starting on P28L1 as (#2048, 1391):***

**9.3.1.22.9.1 Poll sub-variant** *(#2048, 1391)*

***TGaz editor: Modify paragraphs 1 and 2 in 9.3.1.23.9.2 starting on P28L5 and Figure 9-61d as (#2048,*** 2421, 2261, 1394, 1393, 1391)***:***

The Trigger Dependent User Info subfield is not present in the Sounding sub-variant of the Ranging Trigger frame *(#2048,* 2421, 2261, 1394, 1393, 1391).

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|  | B0 B11 | B12 B20 | B21 B23  | B24 B25 | B26 B31 | B32 B38 | B39 |
|  | AID12/RID12 | Reserved | UL Rep | Reserved | SS Allocation | Target RSSI | Reserved  |
| Bits | 12 | 9 | 3 | 2 | 6 | 7 | 1 |

 **Figure 9-61d—User Info field for Sounding sub-variant *(#2048,*** 2421, 2261, 1394, 1393, 1391)

***TGaz editor: Remove line starting at P28L29 as (#1391):***

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|  | B0 B11  | B12 B20 | B21 B23 | B24 B25 | B26 B31 | B32 B38 | B39  | B40 B55 |
|  | AID12/RID12 | Reserved | UL Rep | Reserved | SS Allocation | Target RSSI | Reserved  | Trigger Dependent User Info (SAC) |
| Bits: | 12  | 9 | 3 | 2 | 6 | 7 | 1 | 16 |

1. Figure 9-53zz—User Info field for Secured Sounding sub-variant *(#1391)*

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 1707 | 9.3.1.23.9 | 35 | 19 | Reference to section is not correct "identical to the Basic Trigger frame described in 27.5.3.5 and 9.3.1.23," | Please clarify |

Proposed Resolution: **Revised.**

**Discussion:** fixed the reference by pointing to the correct section number in 11ax Draft 4.0.

***TGaz editor: Change line starting at P27L18 as (#1707):***

The RA field and the CS Required, UL BW subfields in the Common Info field of the Ranging
Trigger frame are identical to the Basic Trigger frame described in 26.5.3.5 and 9.3.1.22,

***TGaz editor: Change section header starting at P26L4 as (#1707):***

 9.3.1.22 Trigger frame format

***TGaz editor: Change section header starting at P26L11 as (#1707):***

 9.3.1.22.9 Ranging Trigger variant

***TGaz editor: Change section header starting at P28L1 as (#1707):***

 9.3.1.22.9.1 Poll sub-variant

***TGaz editor: Change section header starting at P28L4 as (#1707):***

 9.3.1.22.9.2 Sounding sub-variant

***TGaz editor: Change section header starting at P28L22 as (#1707):***

 9.3.1.22.9.3 Secured Sounding sub-variant

***TGaz editor: Change section header starting at P29L9 as (#1707):***

 9.3.1.22.9.4 Report sub-variant

***TGaz editor: Change section header starting at P29L13 as (#1707):***

 9.3.1.22.9.5 Passive Location Sounding sub-variant

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Proposed Resolution** |
| 1116 | 9.3.1.23.9.2 | 28 | 14 | The text "The UL Rep subfield signals the number of repetitions N\_REP of the HE LTF symbols in the corresponding HE TB Ranging NDP or HE Ranging NDP from the STA indicated in the AID12/RID12 subfield" refers to the HE Ranging NDP which is perhaps used in the Passive Location TB ranging. | Remove "HE Ranging NDP" and add it using similar note for the Passive Location Sounding (i.e. 9.3.1.23.9.5). | **Revised.**Removed the text and added content for Passive Location case.  |

***TGaz editor: Change line starting at P27L18 as (#1116):***

The UL Rep subfield signals the number of repetitions N\_REP of the HE LTF symbols in the
corresponding HE TB Ranging NDP from the STA indicated in the
AID12/RID12 subfield ***(#1116)***.

***TGaz editor: Add line starting at P29L16 as (#1116):***

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 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)***.

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Proposed Resolution** |
| 1583 | 9.3.1.23.9.3 | 34 | 26 | The UL Rep in User Info field for Secured Sounding sub-variant only signals the number of repetitions of the HE LTF symbols in the corresponding HE TB Ranging NDP and the "or HE Ranging NDP" should be removed. | as suggested in comment | **Revised.** Removed the text.  |

***TGaz editor: Change line starting at P29L3 as (#1583):***

The UL Rep subfield signals the number of repetitions of the HE LTF symbols in the
corresponding HE TB Ranging NDP from the STA indicated in the
AID12/RID12 subfield ***(#1583)***.

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Proposed Resolution** |
| 1395 | 9.3.1.23.9.2 | 28 | 20 | Note is unncessary, the behavior described in the note does not belong in section 9, but in section 11 | Remove note. | **Accept** |
| 1397 | 9.3.1.23.9.3 | 29 | 7 | Note is unncessary, the behavior described in the note does not belong in section 9, but in section 11 | Remove note. | **Accept** |

**Proposed Resolution: Accept.**

***TGaz editor: Remove line starting at P28L20 as (#***1395)***:***

***TGaz editor: Remove line starting at P29L7 as (#***1397)***:***

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Proposed Resolution** |
| 1424 | 9.3.1.23 | 26 |  | no description for ranging field provided | provide description for the ranging field | **Reject**In REVmd 802.11-2018 document, there is no column called “Description” for each field or subfield encoding (e.g., Table 9-158 Direction, Table 9-50 Unified Scaling Factor subfield). Moreover, the Table 9-25b is the same as one used by 11ax except for the introduction of a new Ranging TF type for 11az. As such, there will be inconsistency in reading this table if different conventions are used in 11ax and 11az. |

**References:**