IEEE P802.11
Wireless LANs

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| CR for CIDs on Availability Window field format |
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Abstract

This document proposes resolution to LB 240 CIDs on 9.4.2.278 and 9.4.2.277: 1367, 1535, 1645, 1646, 1132, 1372, 1373, and 1376.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Updated based on discussion during IEEE FTF and reflecting changes relative to draft 1.2.

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1367 | 9.4.2.278 | 25 | 11 | What happens if the Duration field in the Availability Window Information field is set to 0? We should probably reserve the value of 0. I see that this same comment applies to many other fields defined in this spec. | Set the value of 0 to be Reserved | **Accept.**Revised the text to clarify that value of 0 is Reserved.  |

***TGaz editor: Modify the paragraph in*** 9.4.2.278 ***starting on P47L15 as (#1367, #***1373***):***

The Duration subfield in the Availability Window Information field indicates the duration of the
corresponding Availability Window in units of 100 microseconds (giving it a value from 0 to ~12.7 ms). The value of 0 is Reserved ***(#1367, #*** 1373***)***.

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| 1535 | 9.4.2.277 | 46 | 9 | What applies here to TB ranging also applies to Passive Location Ranging. | Replace 'TB Ranging' with 'TB Ranging and Passive Location Ranging'. | **Reject**Since Passive Location Ranging operation is a variant of TB Ranging operation, there is no need for this to be called out specifically. Please refer to submission 1041 for details.  |

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1645 | 9.4.2.277 | 46 | 9 | "The Padding bits in the ISTA Availability Information field are only included for the length of the field to be a multiple of 8". The padding bits if included are reserved (set to zero by the transmitter and ignored by the receiver). | Replace with "The Padding subfield may be present in order to render the length of the Availability Information field to be a multiple of 8. The value of the bits in the Padding field is reserved." | **Accept.**Modified the corresponding text as proposed.  |

***TGaz editor: Modify the paragraph in*** 9.4.2.277 ***starting on P46L19 as (#1645):***

The Padding subfield may be present in order to render the length of the Availability Information field to be a multiple of 8. The value of the bits in the Padding field is reserved. (#1645).

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1646 | 9.4.2.278 | 47 |  | Availabililty Window Information field in Cl. 9.4.2.278 and in Cl. 9.4.2.285 should be harmonized. | Replace figure 9-1004 with figure 9-1021. State that the BW subfield is reserved. Further harmonization of the subfield descriptions could be done. | **Revised.** The difference between the two elements is mostly in the BW subfield which is only present for passive location. Hence, we remove the Passive Location Ranging Window element and create a more general RSTA Availability Window element which contains an optional subfield to contain BW values for passive location. We also update the usage of both these elements elsewhere in the document to be consistent with this definition.  |

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| **CID** | **P.L** | **Clause** | **Comment** | **Proposed change** | **Proposed resolution** |
| 1132 | 60. | 9.4.2.285 | No need to have the text describing the partial TSF as it is described in section 9.4.2.278. | Remove the text describing the details of Partial TSF and refer to section 9.4.2.278 similar to the text in TB mode. | Revised. This subclause is now being deleted and the Passive Location Ranging Availability Window element is a variant of the RSTA Availability Window element in Subclause 9.4.2.278, where we are referring to clause 9.4.2.167 Fine Timing Measurement Parameters element. |
| 1372 | 60.5 | 9.4.2.285 | The number of bits in Figure 9-1021 adds up to 42 bits. Reserved bits should be reduced from 7 to 5 bits. | As in comment. | Revised. This subclause is now being deleted and the Passive Location Ranging Availability Window element is a variant of the RSTA Availability Window element in Subclause 9.4.2.278.  |
| 1373 | 60.15 | 9.4.2.285 | Please change max value of Duration from 12.8ms to 12.7ms since the values in the Duration field range from 0 to 127. | As in comment. | Accepted, but change made in Subclause 9.4.2.278 as the Passive Location Ranging Availability Window element is now made a variant of the RSTA Availability Window element in Subclause 9.4.2.278. |
| 1376 | 60.15 | 9.4.2.285 | Please change max value of Periodicity from 25.6ms to 25.5ms since the values in the Duration field range from 0 to 255. | As in comment. | Accepted, but change made in Subclause 9.4.2.278 as the Passive Location Ranging Availability Window element is now made a variant of the RSTA Availability Window element in Subclause 9.4.2.278. |

***TGaz editor: Modify the Figure* 9-1004 *in*** 9.4.2.278 ***as (#1646):***

B0-B15 B16-B22 B23 B24-B31 B32-B39

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| --- | --- | --- | --- | --- |
| Partial TSF Timer | Duration | PassiveLocationRanging Availability Window***(#1646)*** | Periodicity | Passive Location Ranging parameters (Optional) ***(#1646)*** |

Bits: 16 7 1 8 8

 **Figure 9-1004 – Availability Window Information field format**

***TGaz editor: Modify the paragraph in*** 9.4.2.278 ***starting on P47L12 as (#1646):***

The Partial TSF Timer subfield has the same structure and interpretation as that in the Fine Timing
Measurement Parameters element (see clause 9.4.2.167 (Fine Timing Measurement Parameters
element)) (#1132).

***TGaz editor: Modify the text in*** 9.4.2.278 ***starting on P47L17 as (#1646):***

The Passive Location Ranging Availability Window bit is set to 1 to signal that this Availability Window Information field signals parameters for an availability window in which Passive Location Ranging is being performed; otherwise this bit is set to 0 ***(#1646)***.

The Periodicity subfield in an Availability Window Information subfield indicates the periodicity
of that availability window in units of the value of the Beacon Interval field in the most recent
beacon sent by the RSTA (Giving it a value from 0 to ~25.5 s when the beacon interval is 100 TU). **(#1376)**

The Passive Location Ranging parameters subfield format is shown in Figure 9-1005 ***(#1646)***.

B0-B3 B4-B7

|  |  |
| --- | --- |
| BW | Reserved |

Bits: 4 4

 **Figure 9-1005 Passive Location Ranging parameters subfield.**

The BW subfield, defined in Table 1006, indicates the nominal BW used for the transmissions in
the Passive Location Ranging availability window. Depending on the medium availability smaller
bandwidth may be used for the exchanged frames ***(#1646)***.

***TGaz editor: Modify the Table 9-34 in*** 9.3.3.11 ***starting on P29 as (#1646):***

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|  Order  | Information  | Notes |
| 1  | Timestamp |  |
| …  | …  | … |
| 71 (M40)  | Max ChannelSwitchTime | The Max Channel Switch Time element is optionally presentwhen a Channel Switch Announcement or an Extended ChannelSwitch Announcement element is also present. |
| ANA  | RSTAAvailabilityWindow | The RSTA Availability Window element isoptionally present ifdot11PassiveLocationRangingResponderActivated is true and aPassive Location Ranging Availability Window is present ***(#1646)***. |
| Last  | Vendor Specific  | One or more vendor-specific elements are optionally present.These elements follow all other elements. |

***TGaz editor: Delete the 3rd entry in Table 9-94 in*** 9.4.2.1 ***starting on P33 as (#1646):***

 **Table 9-94—Element IDs *(#1646)***

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| --- | --- | --- | --- |
| **Element**  | **Element ID**  | **Element IDExtension** | **Extensible** |
|  |  |  |  |  |

***TGaz editor: Delete Section 9.4.2.285 starting on P59L26 to P61L23 including Figures 9-1021 and Figure 9-1022, except move Table 1006 from P62 to the end of the section 9.4.2.278.***

***TGaz editor: Modify the paragraph starting in 11.22.6.1.3 P85L21 as:***

The RSTA centric Scheduling for Passive Location Ranging operation operates as the RSTA
centric Scheduling for TB Ranging operation described in Section 11.22.6.1.1. The availability
window is here referred to as a Passive Location Ranging Availability window. The RSTA
announces the schedule for the Passive Location Ranging Availability window, if
present, in every beacon frame by including a RSTA Availability Window element. The RSTA Availability Window element in this case contains only one Availability Window Information subfield. The Passive Location Ranging Availability Window bit in that Availability Window Information subfield is set to 1 ***(#1646)***.

***TGaz editor: Modify the two consecutive paragraphs starting in* 11.22.6.3.3** ***P91L13 as:***

If the RSTA includes a TB-specific subelement in an IFTM to an ISTA and the Status Indication
field in the IFTM is set to 1, then the RSTA shall include an RSTA Availability Window element
in the IFTM. The RSTA Availability Information field in the RSTA Availability Window
element shall contain exactly one Availability Window Information field. The Availability
Window Information field represents the availability window assigned by the RSTA to the ISTA. The Passive Location Ranging Availability Window bit in this Availability Window Information subfield is set to 0 ***(#1646)***.

If the RSTA includes a TB-specific subelement in an IFTM to an ISTA and the Status Indication
field in the IFTM is set to 2 or 3, then the RSTA may include an RSTA Availability Window
element in the IFTM. The RSTA Availability Information field in the RSTA Availability
Window element shall contain one or more Availability Window Information field(s). Each
Availability Window Information field represents an availability window that the RSTA can
assign to that ISTA if requested by the ISTA in future. The Passive Location Ranging Availability Window bit in this Availability Window Information subfield is set to 0 ***(#1646)***.