**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **Proposed Resolutions for PT Data field** |
| Date Submitted | May 2024 |
| Sources | Rojan Chitrakar, Lei Huang (Huawei)rojan.chitrakar@huawei.com |  |
| Re: |   |
| Abstract |  |
| Purpose | To propose resolution for PT Data field related comments for “P802.15.4ab™/D (pre-ballot) C Draft Standard for Low-Rate Wireless Networks” .  |
| Notice | This document does not represent the agreed views of the IEEE 802.15 Working Group or IEEE 802.15.4ab Task Group. It represents only the views of the participants listed in the “Sources” field above.It is offered as a basis for discussion and is not binding on the contributing individuals. The material in this document is subject to change in form and content after further study. The contributors reserve the right to add, amend or withdraw material contained herein. |

Rev 0: Initial version.

Rev 1: To allow correct calculation of frame length, moved the Passthrough field as the penultimate field in the secured report Compact frames and as the last field for the rest of the report Compact frames.

***Comment Indices in 15-24-0010-00-04ab-consolidated-comments-draft-c:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Index#** | **Pg** | **Sub-Clause** | **Ln** | **Comment** | **Proposed Change** | **Disposition** |
| Carl Murray | 798 | 89 | 10.38.10.14 | 8 | The descriptions of the PT data are missing (eg units of length, order of bytes, etc) | Add missing descriptions | Revised |
| Benjamin Rolfe | 167 | 98 | 10.38.10.21  | 19 | Missing field definitions Key ID, PT Data, Round-trip time. Note that some of these may be defined in the base standard (can xref) | Complete specification or remove clause | Revised |
| Bin Qian | 395 | 98 | 10.38.10.21 | 19, 21 | The description is not complete | As in the comment | Revised |

**Discussion**：



**24/103r7 (Alex) has replaced the PT Data Length field and the PT Data field with the Passthrough field in Figures 78 and 79:**

**10.38.10.3.X The Passthrough field**

This is a variable length field that is used to pass arbitrary data to the next higher layer. It is formated as shown in Figure XXX.

|  |  |
| --- | --- |
| Octets: 1 | variable |
| PT Data Length | PT Data |

Figure XXX -- The Passthrough field structure

The value of PT Data Length is the number of octets contained in the PT Data field.

The PT Data field contains PT Data Length number of octets to be passed through to the next higher layer. The content of PT Data is out of scope of this specification.

***Instructions to the editor: on p.78 change Figure 69 as shown below:***

|  |  |
| --- | --- |
| Octets: 5 | 0/variable |
| Round-trip Time | Passthrough |

**Figure 69—Format of the Message Content field in the One-to-one Initiator Report Compact frame (with Message Control field value 0x00)**

***Instructions to the editor: on p.78 change l.23-24 as shown below:***

The Pass-through field is defined in 10.38.10.3.X. Its presence is determined by Frame Length (13.1.3.2) ***[13.1.3.2 is reference to 4me-D01]***.

***Instructions to the editor: on p.79 change Figure 71 as shown below:***

|  |  |
| --- | --- |
| Octets: 5 | 0/variable |
| Reply Time | Passthrough |

**Figure 71—Format of the Message Content field in the One-to-one Responder Report Compact frame when the Message Control field value is 0x00**

**Disposition: Revised**

**Disposition Detail: Rest of the Compact frames that carry PT Data field are also changed in similarly.**

**Proposed text changes on P802.15.4ab™/D (pre-ballot) C:**

**10.38.10.10 One-to-one Responder Report Compact frame**

***Change the subfield as follows (Track changes ON)***

…

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Octets: 5** |  |  | **0/1** | **0/6** | **0/1** | **0/7** | **0/3** | **0/2** | **0/variable** |
| Reply Time |  |  | Presence Bitmap | NB Channel Map | Management PHY Configuration | Management MAC Configuration | Ranging PHY Configuration | Ranging MAC Configuration | Passthrough |

**Figure 72—Format of the Message Content field in the One-to-one Responder Report Compact frame when the Message Control field value is 0x10**

The Passthrough field is defined in 10.38.10.3.X. Its presence is determined by Frame Length (13.1.3.2) ***[13.1.3.2 is reference to 4me-D01]***.

**10.38.10.14 One-to-many Responder Report Compact frame**

***Change the subfield as follows (Track changes ON)***

…

|  |  |  |  |
| --- | --- | --- | --- |
| **Octets: 5** |  |  | **0/variable** |
| Reply Time |  |  | Passthrough |

**Figure 95—Format of the Message Content field in the One-to-many Responder Report Compact frame when the Message Control field value is 0x00**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Octets: 5** |  |  | **0/1** | **0/6** | **0/1** | **0/7** | **0/3** | **0/2** | **0/variable** |
| Reply Time |  |  | Presence Bitmap | NB Channel Map | Management PHY Configuration | Management MAC Configuration | Ranging PHY Configuration | Ranging MAC Configuration | Passthrough |

**Figure 96—Format of the Message Content field in the One-to-many Responder Report Compact frame when the Message Control field value is 0x10**

The Passthrough field is defined in 10.38.10.3.X. Its presence is determined by Frame Length (13.1.3.2) ***[13.1.3.2 is reference to 4me-D01]***.

**10.38.10.15 One-to-many Initiator Report Compact frame**

***Change the subfield as follows (Track changes ON)***

…

|  |  |  |
| --- | --- | --- |
| **Octets: 5** |  | **0/variable** |
| Round-Trip Time |  | Passthrough |

**Figure 98—Format of the Message Content field in the One-to-many Initiator Report 8 Compact frame when the Message Control field value is 0x00**

The Passthrough field is defined in 10.38.10.3.X. Its presence is determined by Frame Length (13.1.3.2) ***[13.1.3.2 is reference to 4me-D01]***.

**10.38.10.21 One-to-one Initiator Secure Report Compact frame**

***Change the subfield as follows (Track changes ON)***

…

|  |  |  |  |
| --- | --- | --- | --- |
| Octets: 1 |  | 0/variable | 5 |
| Key ID |  | Passthrough | Round-trip Time |

**Figure 115—Format of the Message Content field in the One-to-one Initiator Secure Report Compact frame**

The Passthrough field is defined in 10.38.10.3.X. Its presence is determined by Frame Length (13.1.3.2) ***[13.1.3.2 is reference to 4me-D01]***.

**10.38.10.22 One-to-one Responder Secure Report Compact frame**

***Change the subfield as follows (Track changes ON)***

…

|  |  |  |  |
| --- | --- | --- | --- |
| Octets: 1 |  | 0/variable | 5 |
| Key ID |  | Passthrough | Round-trip Time |

**Figure 117—Format of the Message Content field in the One-to-one Responder Secure Report Compact frame when the Message Control field value is 0x00**

…

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Octets: 1 |  |  | 1 | 0/6 | 0/1 | 0/7 | 0/3 | 0/2 | **0/variable** | 5 |
| Key ID |  |  | Presence Bitmap | NB Channel Map | Management PHY Configuration | Management MAC Configuration | Ranging PHY Configuration | Ranging MAC Configuration | Passthrough | Reply Time |

**Figure 118—** **Format of the Message Content field in the One-to-one Responder Secure Report Compact frame when the Message Control field value is 0x10**

The Passthrough field is defined in 10.38.10.3.X. Its presence is determined by Frame Length (13.1.3.2) ***[13.1.3.2 is reference to 4me-D01]***.

**10.38.10.23 One-to-many Initiator Secure Report Compact frame**

***Change the subfield as follows (Track changes ON)***

…

|  |  |  |  |
| --- | --- | --- | --- |
| Octets: 1 |  | 0/variable | 5 |
| Key ID |  | Passthrough | Round-trip Time |

**Figure 120—Format of the Message Content field in the One-to-many Initiator Secure Report Compact frame when the Message Control field value is 0x00**

The Passthrough field is defined in 10.38.10.3.X. Its presence is determined by Frame Length (13.1.3.2) ***[13.1.3.2 is reference to 4me-D01]***.

**10.38.10.24 One-to-many Responder Secure Report Compact frame**

***Change the subfield as follows (Track changes ON)***

…

|  |  |  |  |
| --- | --- | --- | --- |
| Octets: 1 |  | 0/variable | 5 |
| Key ID |  | Passthrough | Round-trip Time |

**Figure 122—Format of the Message Content field in the One-to-many Responder Secure Report Compact frame when the Message Control field value is 0x00**

**…**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Octets: 1 |  |  | 1 | 0/6 | 0/1 | 0/7 | 0/3 | 0/2 | **0/variable** | 5 |
| Key ID |  |  | Presence Bitmap | NB Channel Map | Management PHY Configuration | Management MAC Configuration | Ranging PHY Configuration | Ranging MAC Configuration | Passthrough | Reply Time |

**Figure 123—Format of the Message Content field in the One-to-many Responder Secure Report Compact frame when the Message Control field value is 0x10**

The Passthrough field is defined in 10.38.10.3.X. Its presence is determined by Frame Length (13.1.3.2) ***[13.1.3.2 is reference to 4me-D01]***.