**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |
| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **Proposed Resolution for Comments # 153 178 179 200 232 233 234 235 236 294 313 677 678**  |
| Date Submitted | May 24, 2024 |
| Sources | Carlos Aldana (Meta)  |  |
| Re: |   |
| Abstract |  |
| Purpose | To propose resolution to some comments for “P802.15.4ab™/Draft (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. |

***Comment Index #178***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Benjamin Rolfe | 178 | 135 | 10.40.4.1 | 19 | We don't need "only" in "shall only" - just "shall" is sufficient (and correct). | Delete "only";  |

**Discussion**: Agree with commenter.

**Proposed Resolution** Accept

***Comment Index # 233***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Billy Verso | 233 | 135 | 10.40.4.1 | 19 | "shall only" is not testable. | change to "may" |

**Discussion**: Similar comment as 178, but proposed resolution is reject since 178 resolves the concern.

**Proposed Resolution** Revised

Delete “only”

***Comment Index #179 15-24-0010-27-04ab-consolidated-comments-draft-c.xlsx***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Benjamin Rolfe | 179 | 137 | 10.40.4.2 | 2 | We don't need "only" in "shall only" - just "shall" is sufficient (and correct). | Delete "only";  |

**Discussion**: Agree with commenter.

**Proposed Resolution: Accept**

***Comment Index #678***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rojan Chitrakar | 678 | 139 | 10.40.4.1 | 3 | Why UWB HRP capability and not HRP UWB Capability? | Rename as HRP UWB Capability for consistency. |

**Discussion**: Agree with commenter. There is more than 1 instance where this change is necessary.

**Proposed Resolution:** In page 136, there are 3 instances of “UWB HRP Capability”. Replace them with “HRP UWB Capability”.

***Comment Index #232***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Billy Verso | 232 | 135 | 10.40.3 | 7 | Lines 7 to 13, uses hex codes in body of text. This is makes the message description cryptic and hard to read. Better to define some more descriptive names for the different messages types and put the detail of the over the air encoding into message definition clause only. | Make it so. |

**Discussion**: Agree with commenter.

**Proposed Resolution** Replace text with the following easier to read text:

When the controller sends the HRP UWB Association Response command to indicate success with the Association Status field value set to 0 or 2, (as described in Table 35 – Valid values of the Association Status field), the Association Response command from the controller shall contain the Session Configuration field. When the short address chosen by the controlee already exists, the controller may send Association Response command with the Association Status field set to “Association successful with updated short address” (i.e., value of 2) to update the short address for the controlee. When the Association Status field is set to “Association successful with updated short address” (i.e., value of 2), the Association Response command shall contain the Updated Short Address field whose value is unique in the session. When two or more controlees send an Association Request with the same short address in the same round, the controller should send an Association Response command with the Association Status field set to “Association denied because duplicate short addresses requested. Try again with a different short address“ (i.e., value of 3) to inform the controlees to try again with a different short address.

***Comment Index #200, 294, and 313***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Billy Verso | 200 | 38 | 10.31.9.10 | 8 | I think this needs some clarification. Would these IEs be used in the same frame? What role has RDM IE if the Scheduling IE is present? RDM was introduced by 4z while Scheduling IE is new and would not be understood by older devices. Is there any need for / thoughts on backward compatibility interworking with older devices? | Add/refer to appropriate operational description that explains the usage / addresses these concerns. |

***Comment Index #294***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Carlos Aldana | 294 | 38 | 10.31.9.10 | 8 | Due to its inefficiency, the RDM IE should not be present in the same frame as the scheduling IE.  | Replace sentence in lines 8-9 with "An RDM IE shall not be used in the same frame as a scheduling IE. The Scheduling IE shall be used for scheduling." |

***Comment Index #313***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Bin Qian | 313 | 38 | 10.31.9.10 | 8 | Does it mean when there are both Scheduling IE and RDM IE, 4ab device will follow Scheduling IE and 4z device will follow RDM IE? | Clarify the case in the comment |

**Discussion**: For 4ab devices, the RDM IE shall not be present in same frame as scheduling IE. Regarding backwards compatibility, the legacy devices will not understand the scheduling IE and should ignore its content. If there is both scheduling IE and RDM IE, then 4ab device will follow Scheduling IE and 4z device will follow RDM IE.

**Proposed Resolution Revise**

Replace sentence in lines 8-9 with "For HRP-EMDEVs, the Scheduling IE shall be used for scheduling. For HRP-ERDEV, RDM IE shall be used for scheduling."

***Comment Index #153***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Benjamin Rolfe | 153 | 137 | 10.40.4.2  | 10 | The behavior is inconsistent with the base standard.  | Change to: The PAN ID compression field, the Source PAN ID field, and the Destination PAN ID field shall be set asdefined in 7.2.2.6. |

**Discussion**: Agree with commenter.

**Proposed Resolution** Make the change as indicated in Section 10.40.4.2

***Comment Index # 235 and 236***

***Comment Index #235***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Billy Verso | 235 | 135 | 10.40.4.1 | 27 | The destination address cannot be the device's own mac address attributes, it is not sending the command to itself. | Put in correct source of destination address. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Billy Verso | 236 | 137 | 10.40.4.2 | 11 | The destination address cannot be the device's own mac address attributes, it is not sending the command to itself. | Put in correct source of destination address. |

**Discussion**: Agree with the commenter that the current text can be improved. The current text in both Sections 10.40.4.1 and 10.40.4.2 can be clarified:

The Destination Address field shall contain the value of *macShortAddress* or *macExtendedAddress*, when the Destination Addressing Mode field is 0b10 or 0b11, respectively.

The Source Address field shall contain the value of *macShortAddress* or *macExtendedAddress*, when the Source Addressing Mode field is 0b10 or 0b11, respectively.

The text can be changed to

The Destination Address field shall contain the value of the short address or extended address*~~macShortAddress~~* ~~or~~ *~~macExtendedAddress~~* of the device requesting association, when the Destination Addressing Mode field is 0b10 or 0b11, respectively.

The Source Address field shall contain the value of the short address or extended address *~~macShortAddress~~* ~~or~~ *~~macExtendedAddress~~* of the device sending the frame, when the Source Addressing Mode field is 0b10 or 0b11, respectively.

**Proposed Resolution Revise**

**NOTE TO EDITOR:** In Section 10.40.4.2, change the text in lines 11-14 to the following:

The Destination Address field shall contain the value of the short address or extended address*~~macShortAddress~~* ~~or~~ *~~macExtendedAddress~~* of the device requesting association, when the Destination Addressing Mode field is 0b10 or 0b11, respectively.

The Source Address field shall contain the value of the short address or extended address *~~macShortAddress~~* ~~or~~ *~~macExtendedAddress~~* of the device sending the frame, when the Source Addressing Mode field is 0b10 or 0b11, respectively.

In Section 10.40.4.1, do the same for text in lines 27-30.

***Comment Index #677***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rojan Chitrakar | 677 | 136 | 10.40.3 | 16 | Figure is misleading; block and round length are same? | Redraw the figure correctly else delete the figure |

**Discussion**: Agree with commenter even though the page reference is incorrect. This is an example of a block containing a single round. Control message is guaranteed to be in each block, not each round.

**Proposed Resolution: REVISE.** Accept to fix the figure.

NOTE TO EDITOR: Can you please change the description of Figure 157 to say “Example of frame exchange for HRP UWB association when a block contains a single round”.

***Comment Index #234***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Billy Verso | 234 | 135 | 10.40.4.1 | 21 | This one line paragraph does not make sense to me... what is "the Control Message" and how does the MAC command refer to it? | Not sure what is the correct fix, but "Control Message" should be deleted/replaced with something. |

**Discussion**: This is in reference to the following sentence:

The Source Addressing Mode field and the Destination Addressing Mode field shall be set to the same mode as indicated in the Control Message to which the HRP UWB Association Request command refers.

Agree with commenter that this needs clarification.

**Proposed Resolution: Revise**

Change the sentence to “The Source Addressing Mode field and the Destination Addressing Mode field shall be set to the same mode as indicated by the AC IE in the Control Message to which the HRP UWB Association Request command refers.”