**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | D02 Miscellaneous Comment Resolutions VII |
| Date Submitted | 13 September 2025 |
| Source | Billy Verso (Qorvo),  | Billy dot Verso at Qorvo dot com |
| Re: | IEEE P802.15.4ab |
| Abstract | Comment Resolutions for selected comments on the LB213 / P802.15.4ab D02. |
| Purpose | This document provides text changes intended to be part of the final IEEE Std 802.15.4ab (amendment to IEEE Std 802.15.4), as part of resolving selected comments from the consolidated spreadsheet (DCN 15-25-0174) that have been assigned to the author to resolve. |
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| Comments addressed here |

**Introduction**

This submission addresses some more comments, some relating to the division of responsibility between MAC functionality and Next Higher Layer functionality, and some on other things.

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1. **Comment Index # 514**

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| **Ind** | **Pg** | **clause** | **line** | **Comment** | **Proposed Change** |
| 514(Billy) | 104 | 10.39.11.1.3.9 | 14 | Change wording to avoid the distinction of NHL or MAC, I think it is NHL that should be setting the phyCurrentChannelInfo to select the physical layer radio channel to use for next the transmission. | change "shall be" to "is" |

**Discussion:**

This relates to the lines shown below:



This comment is a fairly straightforward case of MAC vs NHL, however looking at the paragraph in question, the “enabled by” and other phrasing also should be tidied up.

**Proposed Disposition:** Revised. **Disposition Detail:** see below

***Replace the paragraph on p104 lines 12 to 15 with the following:***

The Channel Switching field when one specifies that the channel switching mechanism (described in 10.39.8.4) is enabled, or when zero that channel switching is disabled. If channel switching is disabled, the lowest channel number in the macMmsNbChannelAllowList is used for narrowband transmissions in control and reporting phases.

1. **Comment Index # 574**

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| **Ind** | **Pg** | **clause** | **line** | **Comment** | **Proposed Change** |
| 574(Billy) | 138 | 10.39.11.3.18 | 17 | I expect this is in the realm of the NHL to use same address in both radios, (assuming the frame and the address are specified/sent via the MCPS-DATA.request) | change "the Address field value used shall be the same in both frames." to "the same Address field value is used in both frames." |

**Discussion:**

This relates to the lines shown below:



As the commenter says the addresses in question are supplied by the next higher layer in the MCPS-DATA.request primitive, so it is up to the next higher layer to understand and apply the same addresses. The proposed change (shown below) is acceptable:

Change "the Address field value used shall be the same in both frames."

to "the same Address field value is used in both frames."

**Proposed Disposition:** Accepted. **Disposition Detail:** <blank>

# Comment Index # 519

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| **Ind** | **Pg** | **clause** | **line** | **Comment** | **Proposed Change** |
| 519(Billy) | 105 | 10.39.11.1.3.9 | 13 | seems to be specifying both TX and RX activity of NHL with SHALL and I think this was already covered elsewhere. (p80 L24) | Delete the sentence |

**Discussion:**

This relates to the sentence highlighted in the screenshot below from D02 p105.



The commenter is saying that this is repeating the following already said on p80:



The proposal is to delete the sentence on p.105 which is essentially repeating what is said on p80, and arguably in this instance the specification of the behaviour should not be on p.105 where the over-the-air field is being described.

**Proposed Disposition:** Accepted. **Disposition Detail:** <blank>

# Comment Index # 577

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| **Ind** | **Pg** | **clause** | **line** | **Comment** | **Proposed Change** |
| 577(Billy) | 140 | 10.39.11.3.18 | 10 | It is NHL that is sending these frames indicating all the UWB usage (sessions) it is running, so this SHALL should be a should. | change "shall send" to "should send" |

**Discussion:**

This relates to the highlighted line shown below:



The sending of these two frames involves the next higher layer invoking MCPS-DATA.request to submit each of the frames and invoking appropriate MLME-SET.request primitives to switch PHY to O-QPSK and UWB accordingly between these MCPS-DATA.request invocations. For that reason, a “shall” is not appropriate here. The proposal to change this to “should” is acceptable.

**Proposed Disposition:** Accepted. **Disposition Detail:** <blank>

# Comment Index # 475

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| **Ind** | **Pg** | **clause** | **line** | **Comment** | **Proposed Change** |
| 475(Billy) | 85 | 10.39.9.1 | 23 | To avoid the distinction of NHL or MAC and whether "shall" is appropriate we should change the language used here, also the "number of fragments ... shall be adjusted" is problematic since it does not explicitly specify the MAC adjusts adjustment. In practice I think probably the MMS UWB packet configuration is picked and then the RpDuration is set to be sufficiently big. | Change sentence to "In one-to-many MMS ranging, the same ranging phase duration mmsRpDuration, applies for each ranging sub-round in the ranging round, this is chosen to be suffficent for the MMS UWB packets being used." " |

**Discussion:**

This relates to the highlighted sentence from p85 below:



The commenter has noted that this is really next higher layer activity and points out certain deficiencies with the sentence in that the adjustments it calls for are not specified. It is pretty clear that this should be next higher responsibility. The proposed change is largely acceptable but minor rewording/correction is proposed as per the disposition…

**Proposed Disposition:** Revised. **Disposition Detail:** see below:

***Change the sentence to:***

In one-to-many MMS ranging, the same ranging phase duration applies to every ranging sub-round in the ranging round, and this is chosen to be sufficient for the MMS UWB packets being used.

# Comment Index # 399

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| **Ind** | **Pg** | **clause** | **line** | **Comment** | **Proposed Change** |
| 399(Billy) | 66 | 10.39.3.2 | 25 | This is a long sentence. Since all compact frames are delivered/sent via MCPS-DATA, the initiator/responder(s) being talked about are mostly already the next higher layer. | Review the paragraph (and clause), from this point of view and change accordingly. |

**Discussion:**

This relates to the highlighted sentence on p66 paragraph shown below:



This is indeed a long sentence. The commenter also is pointing out that all Compact frames are delivered to the next higher layer. On that bases this sentence and the rest of the paragraph are problematic and a change is warranted.

**Proposed Disposition:** Revised. **Disposition Detail:** see below

***Replace the sentence and the two following sentences (up to line 31) with the following:***

The next higher layer is responsible assessing the fields in the Advertising Response Compact frame and the Start of Ranging Compact frame and progressing to active ranging using the resulting parameter settings. Where the same parameters are in both of these frames, the values in the Start of Ranging Compact frame take precedence.

# Comment Index # 349

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| **Ind** | **Pg** | **clause** | **line** | **Comment** | **Proposed Change** |
| 349(Billy) | 39 | 10.21.6.1.3 | 1 | This is the first use of the word "session". In the base standard "session" only appears within the text of the ARC IE for Session ID and there where other than the field name it is a "ranging session", with a definition given as "A group of ERDEVs engaged in a continuous ranging procedure that is characterized by a specific initial set of parameters is called a ranging session.", the 4z MAC does not use the Session ID it is just conveyed in the IE. "Session" is clearly a higher layer protocol construct. In FiRa protocols (for instance) build upon 4z, it mostly talks about UWB session (a term now currently used a lot in 4ab), sometimes ranging session, sometimes TWR session, sometimes HUS session. Since the 4ab MAC is not really aware of sessions as such, I think we should try to avoid using of it except where needed to talk about Session ID. | Since the 4ab MAC is not maintaining sessions (several of which might be being managed simultaneously by the upper layer protocols) we should consider whether we should be talking about them in 4ab. I would be in favour of a review of this and removing as much mention of Session as possible, unless it is really needed to be used as part of the MAC functional definition. Where we talk about Session then it should be in the context of higher layer protocol usage of the MAC and clearly not the 4ab MAC itself maintaining or running the session(s).  |

**Discussion:**

The comment is proposing to remove mention of “session” which is a higher layer protocol concept since the MAC is not aware of or maintaining sessions.

However, in a brief review these usages seem okay, in that they are talking about session in places where it is arguably referring to the activity of the higher layer protocol, e.g. for session initialisation and controller association, etc.

Thus, it seems no changes are needed at this time. The commenter is invited to identify (in future ballots) specific places where change is warranted, [*or the editor might amend some places where use of “session” is superfluous*], but for now, in the interest of expediency, the proposed resolution is a rejection as below.

**Proposed Disposition:** Rejected.

**Disposition Detail:**

In review of D02 the use of the term “session” seems okay in general. No change of the draft is necessary or proposed here.

# Comment Index # 395

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| **Ind** | **Pg** | **clause** | **line** | **Comment** | **Proposed Change** |
| 395(Billy) | 66 | 10.39.3.2 | 11 | Instead of "configured"  | change to "pre-agreed" |

**Discussion:**

This relates to the highlighted sentence on p66 paragraph shown below:



The commenter says that “configured” is wrong.

The motivation was probably the fact that it is the DataRate parameter in the TxOptions structure passed into the MCPS-DATA.request that selects this per packet (i.e. the below screenshot from on p25). So this it is not really configured (at MAC or PHY) but rather agreed between the participating devices’ higher layers.



To solve this the rewording below is proposed:

**Proposed Disposition:** Revised. **Disposition Detail:** see below:

***Change the phrase to:***

… or as pre-agreed prior to initialization by the higher layers.

*<END>*