**IEEE P802.15**

**Wireless Specialty Networks**

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| Project | IEEE P802.15 Working Group for Wireless Specialty Networks (WSNs) | |
| Title | More easy ones | |
| Date Submitted | 15-May-2025 | |
| Source | [Benjamin A. Rolfe] [Blind Creek Associates] | E-mail: [ben.rolfe @ ieee.org ] |
| Re: | Comments: 10, 14,278,94,253 | |
| Abstract | Some more almost easy ones | |
| Purpose | Propose comment resolutions for comments 10,14,278,94,253 | |
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Recommended Resolutions to Recirculation Ballot Comments 14,278,94,253

# Summary

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| **Indx** | **Sub-clause** | **Comment** | **Proposed Change** | **Proposed**  **Resolution** |
| 10 | 10.39.8.3 | How long is the CCA duration? Please add text that specifies it | I recommend at least 18us so that it is consistent with latest ETSI 303687 | Revised |
| 14 | 10.39.8.4.1 | if channel switching is disabled, how do we ensure that the channel that is chosen is not an 802.11 primary channel? | Prohibit single channel configuration which overlaps with 802.11 primary channels. If we do this, we would prevent collisions from 802.11 beacons, probe requests, and probe responses | Rejected |
| 278 | 10.39.9.3 | "The responders shall be capable of a fixed reply time of sufficient precision." does not (properly) specify a requirement without defining what "sufficient" in measurable quantaties. This is not defined in this amendment nor in the base standard. Note that 10.29.6.5 of IEEE Std 802.15.4-2024 informs the implementer "The accuracy of the resultant range will depend on how fine a control the responding device has on the transmit time of its response message, where every 1 ns error in TOF translates to approximately 30 cm range error." | Delete sentence (incomplete requirement) | Accepted |
| 94 | 10.39.11.1.2.1 | This method does not allow cryptographic algorithm agility, i.e., changing the algorithms in the future. | Include a method to specify secAeadAlgorithm as specified in the Table 9-9. | Revised |
| 253 | 11.1.4 | The macLifsPeriod timing is not well defined. The value of 28 preamble symbol offset from Aifs needs to be better studied and the unit also needs to be updated. | Update the 28 preamble symbol offset in the Lifs t to a number that is acceptable for different implementers in the group. | Revised |

# Proposed resolution detail 10

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| **Index #** | **Page** | **Sub-clause** | **Line #** | **Comment** | **Proposed Change** |
| 10 | 83 | 10.39.8.3 | 20 | How long is the CCA duration? Please add text that specifies it | I recommend at least 18us so that it is consistent with latest ETSI 303687 |

Resolution: Revised

**Discussion:** The subject text and figure are changed by adopted resolution to other comments so as to not include the 16 usec constraint as described in document Doc 15-25-0307-01-04ab-lb213-d02-comment-resolution-cids-12-407-115.docx. The resolution detail is used for this comment as well.

**Resolution Detail**: Replace all content of subsection 10.39.8.3 by:

If LBT is required before a transmission, either for regulatory reasons or as a coexistence mechanism, then one of the channel access methods defined in 6.3.2 or 10.45 with CCA mode 1 or 3 shall be applied by initiator and responder independently in each transmission slot, even if the same channel is used in consecutive slots. If LBT is not required, the same methods may be used to improve coexistence with other spectrum users.

# Proposed resolution detail 14

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| **Index #** | **Page** | **Sub-clause** | **Line #** | **Comment** | **Proposed Change** |
| 14 | 84 | 10.39.8.4.1 | 15 | if channel switching is disabled, how do we ensure that the channel that is chosen is not an 802.11 primary channel? | Prohibit single channel configuration which overlaps with 802.11 primary channels. If we do this, we would prevent collisions from 802.11 beacons, probe requests, and probe responses |

Proposed resolution: Rejected

Resolution detail: The group disagrees with the comment. Channel selection is controlled by the higher layer, consistent with the architecture of the base standard. This is required so that network management layers can manage channel usage. Note the base standard includes mechanisms such as channel scanning that that can be used by higher layer management entities to collect information for channel selection and other configuration decisions.

# Proposed resolution detail 278

|  |  |  |  |  |  |
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| **Index #** | **Page** | **Sub-clause** | **Line #** | **Comment** | **Proposed Change** |
| 278 | 86 | 10.39.9.3 | 21 | "The responders shall be capable of a fixed reply time of sufficient precision." does not (properly) specify a requirement without defining what "sufficient" in measurable quantaties. This is not defined in this amendment nor in the base standard. Note that 10.29.6.5 of IEEE Std 802.15.4-2024 informs the implementer "The accuracy of the resultant range will depend on how fine a control the responding device has on the transmit time of its response message, where every 1 ns error in TOF translates to approximately 30 cm range error." | Delete sentence (incomplete requirement) |

Proposed resolution: Accepted.

# Proposed resolution detail 94

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| **Index #** | **Page** | **Sub-clause** | **Line #** | **Comment** | **Proposed Change** |
| 94 | 95 | 10.39.11.1.2.1 | 35 | This method does not allow cryptographic algorithm agility, i.e., changing the algorithms in the future. | Include a method to specify secAeadAlgorithm as specified in the Table 9-9. |

Proposed resolution: Rejected

Resolution detail: The comment does not provide sufficient information for the group to make a specific change to the draft amendment.

Discussion: The current draft provides one method for generating the RPA hash. The comment correctly observes that only AES-128 is specified in the draft for RPA Hash generation. While there may be value in providing alternative methods, none are provided with the comment and there have been no technical contributions that would provide an the complete text to add an alternative method.

# Proposed resolution detail 253

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| **Index #** | **Page** | **Sub-clause** | **Line #** | **Comment** | **Proposed Change** |
| 253 | 202 | 11.1.4 | 4 | The macLifsPeriod timing is not well defined. The value of 28 preamble symbol offset from Aifs needs to be better studied and the unit also needs to be updated. | Update the 28 preamble symbol offset in the Lifs t to a number that is acceptable for different implementers in the group. |

Resolution: Revised

Resolution detail:

Change "+28" to "+*macHrpUwbSifsOffset*"; add attribute *macHrpUwbSifsOffset* to Table 8-36 as read only:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Type** | **Range** | **Description** | **Default** |
| *macHrpUwbSifsOffset* | Integer | 1 – 255 | Offset added to the minimum LIFS period  For an HRP-EMDEV to assure that the SIFS<=AIFS<LIFS condition is met. The value is implementation dependent. | NA |

Discussion: After further evaluation, a better approach is to specify an offset that can be implementation dependent via an additional MAC PIB attribute. . Change "+28" to "+macHrpUwbSifsOffset" and define the new attribute either as read write, implementation dependent. The minimum value must meet the relationship that SIFS<=AIFS<LIFS (a minimum of 1 would do it).