**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |
| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | IEEE 802.15.4z |
| Date Submitted | 14-Jan-2020 |
| Source | Boris Danev (3db Access) |
| Re: | Sponsor Ballot comment resolution of draft Standard document P802.15.4z-D5 |
| Abstract | This contribution proposes updated text for the baseline draft P802.15.4z-D5 |
| Purpose | Provision of the text to facilitate its incorporation into the draft text of the IEEE 802.15.4z standard currently under development in TG4z. |
| Notice | This document does not represent the agreed views of the IEEE 802.15 Working Group. It represents only the views of the participants listed in the “Source(s)” field above. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. |
| Release |  |
| Patent Policy | The contributor is familiar with the IEEE-SA Patent Policy and Procedures:  <http://standards.ieee.org/guides/bylaws/sect6-7.html#6> and  <http://standards.ieee.org/guides/opman/sect6.html#6.3>.  Further information is located at <http://standards.ieee.org/board/pat/pat-material.html> and  <http://standards.ieee.org/board/pat>. |

***Comments (in complement to Excel file’s “Resolution Detail”)***

**27634300023: 27634300023, 27634400023, 27633600023, 27633700023, 27633800023, 27634000023, 27634100023, 27634200023, 27634500023, 27634600023, 27634900023, 27635000023: Revise**

**Resolution Step 1:**

**Figures 37, 40, 41, 42, 43, 44, 45 and 46** added the ranging counters, removed the duplicated .confirm primitives. Sent to Billy per email.

**Resolution Step 2:** Include the RangingReportDescriptor into the MCPS-RANGING-VERIFIER.confirm and MCPS-RANGING-PROVER.confirm

**8.3.6.2: Change text at the beginning to simplify the description of the primitive**

The MCPS-RANGING-VERIFIER.confirm primitive reports the result of a MCPS-RANGING-VERIFIER.request.

**8.3.6.3: (a) Add RangingReportDescriptor in the primitive and in Table 35.**

**(b) Remove RxRangingCounter from the Primitive and also from Table 35.**

MCPS-RANGING-VERIFIER.indication(

…,

RangingReportDescriptor

~~RxRangingCounter~~

)

Add the following row in Table 35:

|  |  |  |  |
| --- | --- | --- | --- |
| RangingReportDescriptor | Structure | As defined in Table 32. | Reports ranging related results. |

**8.3.7.2: Change text at the beginning to simplify the description of the primitive:**

The MCPS-RANGING-PROVER.confirm primitive reports the result of a MCPS-RANGING-PROVER.request.

**8.3.7.3: Add RangingReportDescriptor as follows:**

MCPS-RANGING-PROVER.indication(

…,

RangingReportDescriptor

)

Add the following row in Table 38:

|  |  |  |  |
| --- | --- | --- | --- |
| RangingReportDescriptor | Structure | As defined in Table 32. | Reports ranging related results. |

**27638300023, 27638400023: Accept**

Tero is right, that the ACCRR IE is created by the MAC when the upper layer sets a Boolean parameter in the request.

**27640900023: Revise**

**Resolution: Change ChallengeResponseTransfer IE as follows:**

|  |  |  |
| --- | --- | --- |
| Bits: 0 | 1-7 | Octets: 4 – 64 |
| Type | Length | Data |

**Figure 75 - ChallengeResponseTransfer IE Content field format**

The Type field selects the type in the Data field. If Type equals 0, Data field contains Challenge data. If Type equals 1, Data field contains the Response data.

The Length field contains the number of octets of the Data field

The Data field contains the Challenge or Response data

**27641000023: Accept.** Extend the Challenge field to 4/8/16/32/64

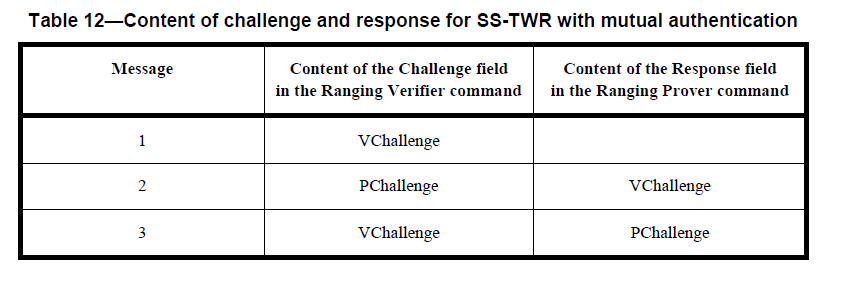
Now the ChallengeResponseTransfer IE can handle up to 64 bytes of challenge or response transfer.

**27641100023: Accept.** Extend the response field to 4/8/16/32/64

Now the ChallengeResponseTransfer IE can handle up to 64 bytes of challenge or response

**27593100023: Revise**

**Resolution: Change Table 12 as follows:**



VChallenge, PChallenge

PChallenge, VChallenge

**27635600023: Accept**

**27635800023, 27635900023: Revise**

If “Resolution Step 2” was implemented in the draft than it has covered these 2 comments for both .confirm primitives.

**27633100023: Revise**

Remove *phyLrpUwbSignaling.* In addition also remove *phyLrpUwbLeipEnabled, phyLrpUwbLeipLength.*

**27636000023: Revise**

The MCPS-RANGING-PROVER.indication primitive indicates the reception of the Ranging Verifier command from a verifier device as part of a challenge-response ranging exchange.

**Following review comments from Billy**: **Revise**

**Add the following text at page 67, line 9 (after …security level.):**

If the two ChallengeResponseTransferIEs exceed the allowed MAC frame length, then they are transmitted in two separate messages and the Verifier MAC waits for the reception of two messages. This behavior can be configured based on the challenge length in the MCPS-RANGING-VERIFIER.request primitive.

**Add the following text at page 71, line 20 (after …verifier device.):**

If the corresponding ChallengeResponseTransferIEs exceed the allowed MAC frame length, then the IEs are transmitted in two separate messages and the Verifier and Prover MAC wait for the reception of two messages. This behavior can be configured based on the challenge/response length in the MCPS-RANGING-VERIFIER.request and the MCPS-RANGING-PROVER.request primitives.