IEEE P802.11  
Wireless LANs

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| 802.11  [LB249 CR for Various Comments]  (relative to P802.11az/D2.0) | | | | |
| Date: 2020-08-05 | | | | |
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**Abstract**

This submission contains proposals to resolve LB#249 CIDs 3758, 3829, 3844, 3854, 3855, 3860, 3862, 3863, 3867, 3878 (10 CIDs total).

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| 3758 |  |  | You don't need to say which sublayer issues the primitive since it's known from the primitive (e.g. PHY-blah.request is always from the MAC) | Just say the STA issues the primitive in 11.22.6.4.2.1.6 Secure measurement exchange for EDMG STAs, 11.22.6.4.6.1 Secure Non-TB ranging mode, 11.22.6.4.6.2 TB Ranging measurement exchange for Secure LTF | Rejected.  REVmd as well as the 802.11 style guide does not make this requirement.  As a result this is a preferance choice.  There are many examples of the opposite to the proposal existing in REVmd.  In addition since this is an internal operation simply saying the STA generates it is incorrect because its non-observable at the STA level. |
| 3829 | P.46  L.2 |  | ", and the size of this field is one octet" is duplication, as is ", and the size of this field is two octets" at line 10. Also "The CFO parameter field is a signed value of length 2 octets." at 97.4 | Delete the cited text | Revised.  Agree in principle with the commenter on the first two citations see discussion in submission 11-20-1257 below.  TGaz editor make changes as depicted in 11-20-1257 below. |

**Discussion:**

D2.0 P.46 L.2 "The format of the Trigger Dependent Common Info field of Ranging Trigger frame of subvariant Poll, Sounding, Secure Sounding and Report is shown in Figure 9-61d.x, and the size of this field is one octet.".

This duplication was already corrected in D2.2:

D2.0 P.46 L.2 The format of the Trigger Dependent Common Info field of Ranging Trigger frame of subvariant Poll, Sounding, Secure Sounding and Report is shown in Figure 9-61d.x.

D2.0 P.46 L.10 "The format of the Trigger Dependent Common Info field of Ranging Trigger frame of subvariant 9 Passive TB Sounding is shown in Figure 9-61d.y, and the size of this field is two octets.”

This duplication was already corrected in D2.2:

D2.0 P.46 L.8 “The format of the Trigger Dependent Common Info field of Ranging Trigger frame of subvariant 8 Passive TB Sounding is shown in Figure 9-61d.y.”

D2.0 P.84 L.30: “The CFO element indicates the reporting ISTAs carrier frequency offset with respect to the RSTA. The CFO element is a 2 octet long signed integer in two’s-complements format indicating the CFO in units of 0.01 ppm.”

The reference to the size of the CFO element is not a repetition of the field size but a description of the format of the field, the field can be of size 3 bytes and include a 2 byte two’s complements.

**Resolution:**

Revised,

TGaz editor no further action needed.

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| 3844 |  |  | IntegrityCheckError needs to be added to the Value cell for RXERROR in Table 8-3--PHY SAP service primitive parameters | As it says in the comment | Resolution: Revised.  Agree in principle with the commenter.  TGaz editor, please make the changes identified submission 11-20-1257 below. |

**Discussion:**

Agree to the point the commenter is making.

Baseline spec has two sub-clauses under clause 8 PHY service specification that deals with the PHY interface:

* 8.3.4 Basic Service and Options
* 8.3.5 PHY SAP Detailed service specification

P802.11az D2.0 made changes to the section 8.3.5 (see below) detailed to reflect under RXEND.indication the value IntegrityCheckError but did not populate it to table 8-3 where all possible values are specified.

P802.11az D2.0:

*“8.3.5 PHY SAP detailed service specification*

*8.3.5.14 PHY-RXEND.indication*

*8.3.5.14.2 Semantics of the service primitive*

***Insert the following paragraph after “Filtered. This value is used to indicate that during the reception of ...“***

*— IntegrityCheckError. This value is used to indicate that the integrity check performed during the reception of the HE Ranging NDP or HE TB Ranging NDP, an integrity check was performed and failed.”*

**Resolution:**

Revised.

**TGaz Editor modify the subclauses** **8.3.4.3 table 8-3 P.37 D2.2 as shown below:**

1. Table 8-3—PHY SAP service primitive parameters

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| **Parameter** | **Associated primitive** | **Value** |
| RXERROR | PHY-RXEND.indication | NoError, FormatViolation,  CarrierLost, UnsupportedRate,  Filtered, IntegrityCheckError (#3844) |
| IPI-STATE | PHY-CCARESET.request  PHY-CCARESET.confirm | IPI-ON, IPI-OFF |
| IPI-REPORT | PHY-CCA.indication  PHY-CCARESET.confirm | A set of IPI values for the preceding  time interval |
| PHYCONFIG\_VECTOR | PHY-CONFIG | A set of parameters |
| TXSTATUS | PHY-TXSTART.confirm | A set of parameters |
| USER\_INDEX | PHY-DATA.request | 0 to TXVECTOR parameter  NUM\_USERS - 1 |
| LTFVECTOR | PHY-RXLTFSEQUENCE.request | Indicate the Secure LTF Counter (#**2289**) to make the randomized LTF sequence used in the Non-TB sounding NDP and TB sounding NDP.  The Secure LTF Counter (#**2289**) is defined in 9.4.2.297 (Secure LTF Parameters). |

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| 3854 | P.76  L.25 |  | "The Element ID and Length fields are defined in 9.4.3 (Subelements). " -- no Element ID field in a subelement | Change to "The Subelement ID and Length fields are defined in 9.4.3 (Subelements). " | Resolution: Accept. |
| 3855 | P.79  L.11 |  | "The Secure LTF Counter (#2289) field (#1129) is present in the RSTA2ISTA (#1664) Location 11 Measurement Report frame and is reserved otherwise. " -- the field is always present, the only question is when it is reserved | Change to "The Secure LTF Counter (#2289) field (#1129) is reserved in frames other than the RSTA2ISTA (#1664) Location Measurement Report frame. ". At 79.17 change "This field is used in the Location Measurement Report frame transmitted from an RSTA and is reserved otherwise. " to "This field is reserved in frames other than a Location Measurement Report frame transmitted by an RSTA. " | Resolution: Reject.  It is common practice in baseline spec to have a field present or alternatively not present in which case the bits are reserved.  Example:  Indication Multicast Address field in the Location Indication Parameters subelementm, refer to REVmd D3.0 P.1221 L.20.  FMSID field in the FMS subelement, WNM sleep interval…  Total of 160 occurrences of the quote “field is reserved” in REVmd. |
| 3860 | None provided |  | There are 7 references to a "measurement instance". This term is not used in the baseline, and is not defined here | Define the term as being a point in time where a ToA and ToD were measured | Resolution: Reject.  See discussion in 11-20-1257 below. |
| 3862 | P.111  L.4 | None provided | "availability window instance " is not defined | Change to "availability window" | Resolution: Reject.  See discussion in 11-20-1257 below. |

**Discussion**:

*Instance – noun, an example or single occurrence of something. (Google dictionary)*

“Measurement instance” and “availability window instance” appear several times in the spec, referring to a singular measurement or availability time window,

There is also an accompanying figure which reference from one measurement instance to the previous is shown.

This is basic English language, there is no value in redefining the English language as part of the spec.

As an example defining a measurement instance to be a point in time where a ToA and ToD were measured will yield the question “what is a point in time” “what is time” , “what is a point” (is it interval or instantaneous zero time?) “what is availability”? and so on.

This will only create a cumbersome spec language and will not serve any purpose.

The commenter himself was wise enough to understand what measurement and availability window instance are.

**Resolution:**

Rejected.

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| 3863 | None provided | None provided | "in the Ranging Parameters field" -- but there might not be such a field. Ditto "the Ranging Parameters field" below | Maybe change "the" to "a", or say "if present". This was rejected in CID 2137 because "The comment is asking a question." but there was no question | Resolution: Reject.  See discussion in 11-20-1257 below. |

**Discussion**:

The commenter provided no line # section # to refer to.

There are 22 occurrences of “in the ranging parameter field” in the D2.2 spec, all of which are in sections related to TB, Non-TB or Passive Ranging and thus the Ranging Parameter field is mandatory (i.e. always) present in the IFTMR.

**Resolution:**

Rejected.

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| 3867 | None provided | None provided | Follow-up to CID 2176: there should be something stating that "if it is delayed feedback, you'll never get the last measurement" | As it says in the comment | Resolution: Reject.  See discussion in 11-20-1257 below. |

**Discussion**:

It is true that in delayed reporting the last measurement is not reported, however there is no action (observable Shall or May statement) on ISTA or RSTA that needs to happen as a result.

It is simply a property of the message exchange flow.

There are many other properties the spec doesn’t specify which individuals may care for, specifying some will yield the question on why not others and will result in no better observable part.

**Resolution:**

Rejected.

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| 3878 | P.120  L.21 | None provided | RSID and AID space shall be non-conflicting instead of 'The RSID 21 and the AID are derived the same ID number space and are non-conflicting' | Suggest to mandate | Resolution: Revised.  Agree with the commenter.  See discussion in 11-20-1257 below.  TGaz Editor, please make changes |

**Discussion**:

*D2.2 P.120 L.17: “If the RSTA includes a TB-specific subelement in an IFTM and the Status Indication field in the 15 IFTM is set to 1, the subelement contains an AID/RSID field assignment to the ISTA. The RSID 16 and the AID are derived from the same ID number space and are non-conflicting (#****2078****).”*

If the RSID and the AID are conflicting (i.e. identical for two different ISTAs) the consequences will be a improper operation.

For example in NTB the RSTA will be unable to distinct between the two ISTAs using the same AID/RSID with an FTM session. As a result in the meas. sequence RSTA will respond with the wrong LMR encryption frame or the wrong NDP (i.e. wrong secured sequence, wrong # of antennas, wrong repetition etc.).

**Resolution:**

**TGaz Editor modify subclause 11.22.6.3.3 P.120 L.17 D2.2 as shown below:**

(#3951)If the RSTA includes a TB-specific subelement in an IFTM frame and the Status Indication field in the IFTM frame is set to 1, the subelement contains an AID/RSID field assignment to the ISTA. The RSID and the AID are derived from the same ID number space and shall be non-conflicting (#2078).