IEEE P802.11  
Wireless LANs

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| LB 249 CR MAC Miscellaneous | | | | |
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**Abstract**

This submission proposes resolutions of comments received from TGaz LB249.

(The proposed change is based on TGaz Draft 2.5.)

* CIDs: 3458, 3869, 3847, 3761, 3627, 3901, 3902, 3868, 3910, 3507, 3614, 3615, 3457 (13 CIDs)

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGaz Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGaz Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGaz Editor: Editing instructions preceded by “TGaz Editor” are instructions to the TGaz editor to modify existing material in the TGaz draft. As a result of adopting the changes, the TGaz editor will execute the instructions rather than copy them to the TGaz Draft.***

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- |
| 3458 | 31.00 | 6.3.56.2.2 | It is confusing that the new 5th column also applies to Passive Ranging, assuming the reader noticed the statement buried in clause 11.22.6.1.3. | Add "Passive Location" to the 5th column heading, to be: "Applies to non-TB, TB, or Passive Location Ranging?" Also include "Passive Location" in the text explaination in 6.3.56.2.1. Same thing in 6.3.56.3 subclauses. | Rejected-  The Passvie Location Raning is a subcategory of the TB Ranging.  Please refer the following in 11.22.6.1.3.  “Passive TB Ranging is a variant of the TB ranging mode referred to in Subclause 11.22.6 (Fine timing measurement (FTM) procedure).” |
| 3869 |  | 8.3.5 | PHY-RXLTFSEQUENCE.confirm is not used anywhere so has no value (nothing is on hold until it comes back, nothing happens when it comes back). Ditto PHY-RXTRNSEQUENCE.confirm | Delete 8.3.5.21 and 8.3.5.23 | Accepted  Agree in principle. |
| 3847 | 37.00 | 8.3.4.2 | Need Xs in the Confirm cells, since both those primitives have a .confirm | As it says in the comment | Rejected-  According to the following comment (CID 3869),  “ PHY-RXLTFSEQUENCE.confirm is not used anywhere so has no value (nothing is on hold until it comes back, nothing happens when it comes back). Ditto PHY-RXTRNSEQUENCE.confirm”,  PHY-RXLTFSEQUENCE.confirm and PHY-RXTRNSEQUENCE.confirm primivites are deleted. |
| 3761 | 37.00 | 8.3.4.3 | Table 8-3 only shows the LTFVECTOR containing the secure LTF counter but Clause 11 indicates it can contain a "Secure-LTF-bits-R2I" or I2R, or a null | Change the bottom right cell of Table 8-3--PHY SAP service primitive parameters to "See 27.2.3a" | Revised-  Agree in principle.  LTFVECTOR includes LTF\_SEQUENCE, LTF\_OFFSET, LTF\_N\_STS, LTF\_REP parameters.  TGaz editor makes changes as specified in 11-20/1354r0 for CID 3761. |
| **TGaz Editor: Change as the following: (#3761)**  **Table 8-3—PHY SAP service primitive parameters**   |  |  |  | | --- | --- | --- | | **Parameter** | **Associated primitive** | **Value** | | … | … | … | | LTFVECTOR | PHY-RXLTFSEQUENCE.request | ~~Indicate the Secure LTF Counter (#~~**~~2289~~**~~)~~ A set of parameters 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 9.4.2.299 (Secure LTF Parameters).~~ | | | | | | |
| 3627 | 79.00 | 9.4.2.297 | "reliable Secure LTF Counter" -- what's an unreliable counter? | Change "The LTF Generation SAC field is used to authenticate that the randomized LTF sequence is 14 generated from a reliable Secure LTF Counter" to "The LTF Generation SAC field is used to authenticate the randomized LTF sequence against the Secure LTF Counter" | Revised-  Agree in principle.  The reliable Secure LTF Counter just means the negotiated Secure LTF Counter.  TGaz editor makes changes as specified in 11-20/1354r0 for CID 3627. |
| **TGaz Editor: Change as the following: (#3627)**  **9.4.2.299 Secure LTF Parameters element**  The LTF Generation SAC field is used to authenticate that the randomized LTF sequence is generated from ~~a reliable~~ the negotiated Secure LTF Counter (#2289). The LTF Generation SAC field is a nonzero value associated with Secure LTF Counter (#2289) carried in the same Secure LTF Parameters element; see 11.21.6.3.4 (Negotiation for Secure LTF in the TB and Non-TB Ranging measurement exchange). This field is used in the Location Measurement Report frame transmitted from an RSTA and is reserved otherwise. | | | | | |
| 3901 | 79.00 | 9.4.2.297 | "The Secure LTF Counter (#2289) field (#1129) is present in the RSTA2ISTA (#1664) Location Measurement Report frame and is reserved otherwise." The counter information is also present in the initial FTM frame. | Modify the sentence so it is correct. | Revised-  Agree in principle.  TGaz editor makes changes as specified in 11-20/1354r0 for CID 3901. |
| **TGaz Editor: Change as the following: (#3901)**  **9.4.2.299 Secure LTF Parameters element**  The Secure LTF Counter (#2289) field (#1129) is present in the initial Fine Timing Measurement frame, the RSTA2ISTA (#1664) Location Measurement Report frame and is reserved otherwise. | | | | | |
| 3902 | 79.00 | 9.4.2.297 | "This field is used in the Location Measurement Report frame transmitted from an RSTA and is reserved otherwise." This field is also included in the initial FTM frame. | Modify the sentence so it is correct. | Revised-  Agree in principle.  TGaz editor makes changes as specified in 11-20/1354r0 for CID 3902. |
| **TGaz Editor: Change as the following: (#3902)**  **9.4.2.299 Secure LTF Parameters element**  The LTF Generation SAC field is used to authenticate that the randomized LTF sequence is generated from a reliable Secure LTF Counter (#2289). The LTF Generation SAC field is a nonzero value associated with Secure LTF Counter (#2289) carried in the same Secure LTF Parameters element; see 11.21.6.3.4 (Negotiation for Secure LTF in the TB and Non-TB Ranging measurement exchange). This field is used in the initial Fine Timing Measurement frame, the RSTA2ISTA Location Measurement Report frame ~~transmitted from an RSTA~~ and is reserved otherwise. | | | | | |
| 3868 | 150.00 | 11.22.6.4.5 | TXVECTOR NUM\_STS is 1-based, but the R2I N\_STS and I2R N\_STS subfields are 0-based. So there's going to be an off-by-one error in "The NUM\_STS parameter is set as follows: 30 o In the non-secure variant of the TB ranging measurement exchange, set to the same value as the R2I N\_STS field" (and also 152.15 " The NUM\_STS parameter is set to the same value as the I2R N\_STS subfield in the STA 15 Info field in the preceding Ranging NDP Announcement frame " etc.) | Make NUM\_STS 0-based, or say "set to indicate the same value" rather than "set to the same value" | Revised-  Agree in principle.  Change to “set to indicate the same value" rather than "set to the same value”.  TGaz editor makes changes as specified in 11-20/1354r0 for CID 3868. |
| **TGaz Editor: Change as the following: (#3868)**  **11.21.6.4.6 Transmission of a ranging NDP**  …  o In the TB Ranging measurement exchange (11.21.6.4.3), set to the same value as the R2I N\_STS field in the STA Info field in the preceding Ranging NDP Announcement frame.  o In the TB Ranging measurement exchange with Secure LTF (11.21.6.4.5.2). (#3895)  The NUM\_STS[*p*] is set to indicate the same value as the R2I N\_STS field in the STA Info field addressed to the corresponding STA *p* in the preceding Ranging NDP Announcement frame when the HE Ranging NDP is transmitted to more than one ISTA.  The NUM\_STS is set to indicate the same value as the R2I N\_STS field in the first STA Info field in the preceding Ranging NDP Announcement frame when the HE Ranging NDP is transmitted to one ISTA.  o In the Non-TB Ranging measurement exchange (11.21.6.4.4) and the Non-TB Ranging measurement exchange with secure LTF (11.21.6.4.5.3), set to indicate the same value as the R2I N\_STS field in the STA Info field in the preceding Ranging NDP Announcement frame.  …  An ISTA transmitting an HE Ranging NDP shall set the TXVECTOR parameter as follows:  — The FORMAT parameter is set to HE\_SU  — The UPLINK\_FLAG parameter is set to 1  — The APEP\_LENGTH parameter is set to 0  — The NUM\_STS parameter is set to indicate the same value as the I2R N\_STS subfield in the STA Info field in the preceding Ranging NDP Announcement frame  …  An ISTA transmitting an HE TB Ranging NDP to an RSTA shall set the TXVECTOR parameter as follows:  — The FORMAT parameter is set to HE\_TB  — The APEP\_LENGTH parameter is set to 0  — The NUM\_STS parameter is set to indicate the same value as the Number Of Spatial Streams subfield in the SS Allocation field in the User Info field in the preceding Ranging Sounding Trigger frame | | | | | |
| 3910 | 153.00 | 11.22.6.4.6 | "11.22.6.4.6 Secure Non-TB and TB Ranging Measurement Exchange Protocol" . The clause title should be changed to "11.22.6.4.6 Protocol description for Non-TB and TB Ranging Measurement exchange using secure LTF" to be accurate. | As in comment. | Revised-  Agree in principle.  The title of 11.22.6.4.6 is changed to “Use of Secure LTF in the TB and Non-TB Ranging Measurement Exchange Protocol”.  But, this change is already applied in TGaz Draft 2.5.    TGba Editor needs no draft update for this CID. |
| 3507 | 100.00 | 10.23.2.2 | I don't think bullet f) should be added. Bullet e) is there to give a special case of handling tx failure in the middle of a TXOP (the NOTE gives other options) but this new bullet f) is just standard ending of a TXOP, and hence is covered by other text | Do not insert the proposed f) | Revised-  The bullet f is added for the clarification of the non-TB ranging behavior.  The text of the bullet f is moved under the 11.21.6.4.4.2 (Measurement Sounding phase of Non-TB Ranging).  TGaz editor makes changes as specified in 11-20/1354r0 for CID 3507. |
| **TGaz Editor: Remove 10.23.2.2 EDCA backoff procedure (especially bullet f) (#3507)**  **TGaz Editor: Change as the following: (#3507)**  **11.21.6.4.4.2 Measurement Sounding phase of Non-TB Ranging**  After transmitting the Ranging NDP Announcement frame and I2R NDP, the ISTA shall wait for a time interval of aSIFSTime + aSlotTime + aRxPHYStartDelay. This interval begins when the MAC receives a PHY-TXEND.confirm primitive for I2R NDP. If a PHY-RXSTART.indication primitive does not occur during the time interval, the ISTA shall conclude that the transmission of the Ranging NDP Announcement frame + I2R NDP has failed and abort the current measurement exchange (#3730). If a PHY-RXSTART.indication primitive occurred during the time interval, the ISTA tries to receive the R2I NDP and the LMR frame from the RSTA addressed by the Ranging NDP Announcement frame. If the LMR is received from the RSTA, the frame exchange initiated by the Ranging NDP Announcement frame is complete, otherwise the ISTA shall conclude that the current measurement exchange has failed (#3731).  The ISTA may invoke the backoff procedure by an EDCAF when the last frame (i.e. RSTA2ISTA LMR) of the exchange initiated by the Ranging NDP Announcement frame has completed, the TXNAV timer has expired, and an I2R LMR was not negotiated. (#1858, #1144, #1859).  In the Non-TB Ranging measurement exchange sequence, the ISTA shall transmit the Ranging NDP Announcement frame with the same bandwidth as the I2R NDP to reserve the medium. (#1829) The Ranging NDP Announcement frame shall contain one STA Info field with the AID11 subfield set to the AID or RSID of the RSTA. (#3222, #TC707r3) | | | | | |
| 3614 |  | C.3 | There are two definitions of dot11ISTA2RSTALMRFeedbackPolicy! | Delete the first | Revised-  Agree in principle.  The redundant definition of dot11ISTA2RSTALMRFeedbackPolicy is deleted.  But, this change is already applied in TGaz Draft 2.5.    TGba Editor needs no draft update for this CID. |
| 3615 |  | C.3 | There are two definitions of dot11ISTA2RSTALMRFeedbackPolicy! | Delete the second | Revised-  Agree in principle.  The redundant definition of dot11ISTA2RSTALMRFeedbackPolicy is deleted.  But, this change is already applied in TGaz Draft 2.5.    TGba Editor needs no draft update for this CID. |
| 3457 | 231.00 | C.3 | The MIB atrribute "dot11LOSassessmentTXImplemented" is read-only, abut described as a control variable. Either make it read-write, or change it to a capability variable (and leave as read-only), or change to an "...Activated" type attribute, and indicate the entity that writes to it. |  | Revised-  Agree in principle.  According to the MIB style guideline, the MIB attribute is changed from the control variable to the capability variable.  TGaz editor makes changes as specified in 11-20/1354r0 for CID 3457. |
| **TGaz Editor: Change as the following: (#3457)**  **C. 3 MIB detail**  …  dot11LOSAssessmentTXImplemented OBJECT-TYPE (#**1280**)  SYNTAX TruthValue  MAX-ACCESS read-only  STATUS current  DESCRIPTION  "This is a ~~control~~ capability variable.  Its value is determined by device capabilities.  This attribute, when true, indicates that the station capability for participation in LOS assessment FTM exchange by transmitting a Loss Assessment PPDU. It is set to false otherwise."  ::= { dot11WirelessMgmtOptionsEntry 55 } | | | | | |