IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| LB279 Various Comments Resolution | | | | |
| Date: 2024-02-06 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Jonathan Segev | Intel |  |  | [jonathan.segev@intel.com](mailto:jonathan.segev@intel.com) |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This submission proposes to address the following CIDs 1358, 1090, 1121, 1128, 1129 (total of 5 CIDs) based in Draft P802.11REVme\_D4.2, and Draft P802.11bk D1.0.

Revisions:

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 TGax Draft. This introduction is not part of the adopted material.

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

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

**The text preceded by “Discussion” is not part of the adopted changes.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 1358 | 99 | C | What has changed on this page? There must be some MIB attributes for 11bk, surely? | Clarify | **Revised**.  Agree in principle.  TGbk editor make changes identified in r1 of <https://mentor.ieee.org/802.11/documents?is_dcn=257&is_year=2024> |
| 1090 | 99.02 | C.3 | Section C.3 is empty | Complete MIB | **Revised**.  Agree in principle.  TGbk editor make changes identified in r1 of <https://mentor.ieee.org/802.11/documents?is_dcn=257&is_year=2024> |
| 1121 | 99.02 | C.3 | The description of the MIB attribute dot11SecureLTFImplemented needs to be updated in the base line | Please add the MIB attribute dot11SecureLTFImplemented to 11bk and replace "HE-LTF" with "LTF" | **Revised.**  Agree in principle.  TGbk editor make changes identified in r1 of <https://mentor.ieee.org/802.11/documents?is_dcn=257&is_year=2024> |
| 1128 | 99.02 | C.3 | In this draft, there are no updates to the MIB Surely this amendement define some parameters that need to be reflected in the MIB | Update the MIB to add any MIB variables that have been added to this amendment. Surely this is one: dot11NGVOptionImplemented. | **Revised.**  Agree in principle.  TGbk editor make changes identified in r1 of <https://mentor.ieee.org/802.11/documents?is_dcn=257&is_year=2024> |
| 1129 | 14.08 | Title page | Now that 802.11bf will follow 802.11bk, it should be removed from the list of amendments. | Delete: "IEEE Std 802.11bfTM/D1.0, " | **Revise.**  TGbk editor delete IEEE Std 802.11bf from the list of prior amendments to the baseline and change the 11bk amendment number to 4 from 5. |

***Resolution to CIDs 1358, 1090, 1121, 1128, 1129:***

*TGbk editor, make changes identified below to clause C.3:*

dot11SecureLTFImplemented OBJECT-TYPE

SYNTAX TruthValue MAX-ACCESS read-only STATUS current DESCRIPTION

"This is a capability variable.

Its value is determined by device capabilities.

This attribute, when true, indicates that a secure LTF (#1358,1090,1121,1128,1129) measurement exchange protocol; see 11.21.6.4.5 is implemented. The capability is disabled otherwise."

::= { dot11WirelessMgmtOptionsEntry 54 }

*TGbk editor, make changes identified below to REVme Table 9-371 (extended RSN Capabilities field) as follows:*

|  |  |  |
| --- | --- | --- |
| * **Extended RSN Capabilities field** | | |
| **Bit** | **Information** | **Notes** |
| 0–3 | Field length | The length of the Extended RSN Capabilities field, in octets, minus 1, i.e., *n* – 1. |
| 4 | Protected TWT Operations Support | A STA sets the Protected TWT Operations Support field to 1 when dot11ProtectedTWTOperationsImplemented is true, and sets it to 0 otherwise. See 10.46.1 (TWT overview). |
| 5 | SAE Hash-to-element | A STA sets the SAE Hash-to-element field to 1 when it supports the hash-to-element method to obtain the PWE instead of looping, and sets it to 0 otherwise. See 12.4.4.2.3 (Hash-to-element generation of the password element with ECC groups) and 12.4.4.3.3 (Direct generation of the password element with FFC groups).  NOTE —If SAE is not negotiated, this field is ignored by the receiver. |
| 6(M34) |  | *Allocated to the Wi-Fi Alliance* [[1]](#footnote-1). |
| 7 | Protected WUR Frame Support | A STA sets the Protected WUR Frame Support field to 1 when dot11RSNAWURFrameProtectionActivated is true, and sets it to 0 otherwise. |
| 8 | Secure LTF Support (#1358, 1090, 1121, 1128, 1129) | A STA sets the Secure LTF Support field to 1 when dot11SecureLTFImplemented is true. Otherwise, the STA sets the Secure LTF Support field to 0. See 11.21.6.4.5 (Secure LTF in the TB and non-TB ranging measurement exchange protocol). (#1358, 1090, 1121, 1128, 1129) |
| 9 | Secure RTT Supported | A STA sets the Secure RTT Supported field to 1 if it supports Secure RTT Measurement exchange as defined in 11.21.6.4.2.7 (DMG secure measurement exchange for EDMG STAs). Otherwise, the field is set to 0. |
| 10 | URNM-MFPR-X20 | A STA sets the URNM-MFPR-X20 field to 1 if dot11RSTARequiresPMFActivated is set to 1. Otherwise, it sets the field to 0. See 11.21.6.3.1 (General) and Annex C.3. |
| 11 | Protected Announce Support | A non-EDMG STA sets the Protected Announce Support field to 1 when dot11ProtectedAnnounceImplemented is true, and sets it to 0 otherwise. See 12.6.18 (Robust management frame selection procedure). |
| 12 | PBAC | A STA sets the PBAC field to indicate it can establish a protected block ack agreement and sets it to 0 otherwise. |
| 13 | Extended S1G Action Protection | A STA sets the Extended S1G Action Protection field to 1 when dot11ExtendedS1GActionProtectionOperationsImplemented is true and sets it to 0 otherwise. |
| 14 | SPP A MSDU Capable | A non-DMG STA sets the SPP A MSDU Capable field to 1 if dot11SPPAMSDUCapable is true. Otherwise, this field is set to 0. See 10.11 (A‑MSDU operation). |
| 15 | URNM-MFPR | A STA sets the URNM-MFPR field to 1 if dot11RSTARequiresPMFActivated is set to 2. Otherwise, it sets the field to 0. See 11.21.6.3.1 (General). |
| 16– (8´*n* – 1) | Reserved |  |

*TGbk editor, make changes identified below to clause 11.21.6.2 (FTM Capabilities) 9th paragraph as follows:*

**11.21.6.2 FTM capabilities**

STA in which dot11SecureLTFImplemented is true shall set the Secure LTF Support field of theRSNXE to 1. Otherwise, it shall set the Secure LTF Support field to 0.

*TGbk editor, make changes identified below to clause 11.21.6.3.4 (Negotiation for secure HE-LTF in the TB and non-TB ranging measurement exchange) 9th paragraph as follows:*

*Note to editor:*

*The Secure HE-LTF field changes to Secure LTF field*

*The Secure HE-LTF Required field changes to Secure LTF Required field*

*The Secure HE-LTF Support field changes to Secure LTF Support field*

*The Secure HE-LTF subelement changes to Secure LTF subelement*

*The Secure HE-LTF measurement exchange changes to Secure LTF measurement exchange.*

**11.21.6.3.4 Negotiation for secure LTF in the TB and non-TB ranging measurement exchange**

An ISTA and an RSTA may activate a secure LTF measurement exchange for non-TB ranging or TB ranging that uses randomized LTF sequences in the I2R NDPs and R2I NDPs, refer to 11.21.6.4.5 (Secure LTF in the TB and non-TB ranging measurement exchange protocol).

An RSTA in which dot11SecureLTFImplemented is true shall set the Secure LTF Support field in the RSNXE to 1. An ISTA in which dot11SecureLTFImplemented is true shall include the Secure LTF subelement in the Ranging Parameters element in an IFTMR frame.

When an RSTA has set the Secure LTF Support field to 1 in the RSNXE, then to request a secure LTF measurement exchange mode with the RSTA, an ISTA with dot11SecureLTFImplemented equal to true shall include the Secure LTF subelement in the Ranging Parameters element in the IFTMR frame and set the value of the Secure LTF Required field in the Secure LTF subelement to 1.

When an ISTA has included the Secure LTF subelement in the Ranging Parameters element in its IFTMR frame and set the value of the Secure LTF Required field to 1, then the RSTA that has set the value of the Status Indication field to 1 (i.e., Successful) shall include the Secure LTF subelement in the Ranging Parameter element in its IFTM frame and set the value of the Secure LTF Required field to 1 to assign a secure LTF measurement exchange mode with the ISTA.

When an ISTA has included the Secure LTF subelement in the Ranging Parameters element in an IFTMR frame, then to assign a secure LTF measurement exchange mode with the ISTA, an RSTA with dot11SecureLTFImplemented equal to true shall include a Secure LTF subelement in the Ranging Parameters element in an IFTM and set its Secure LTF Required field to 1.

When an ISTA has included the Secure LTF subelement in the Ranging Parameters element in its IFTMR frame and set the value of the Secure LTF Required field to 1, the ISTA shall set the Max R2I Repetition and Max I2R Repetition subfields to a value greater than 0.

When an RSTA assigns a secure LTF measurement exchange by including a Secure LTF subelement in the Ranging Parameters element in its IFTM frame and setting the Secure LTF Required subfield to 1, the RSTA shall set the *RSTA Assigned R2I Rep* to the Max R2I Repetition subfield value in the IFTMR frame which shall be greater than 0, and the RSTA shall set *RSTA Assigned I2R Rep* to a value greater than 0 and less than or equal to the Max I2R Repetition subfield value in the IFTMR frame, where the *RSTA Assigned R2I Rep* and *RSTA Assigned I2R Rep* specify the number of HE-LTF repetitions in the preamble of the R2I and I2R NDP for this session, respectively.

When an ISTA has included the Secure LTF subelement in the Ranging Parameters element in the IFTMR frame, it shall indicate to the RSTA a request to use the optional frequency domain Tx window in the R2I NDPs by setting the R2I Tx Window field to 1, otherwise shall set it to 0; and indicate its support of the optional frequency domain Tx window in the I2R NDPs by setting the I2R Tx Window field to 1, otherwise shall set it to 0.

When an RSTA has assigned a secure LTF measurement exchange mode, by including a Secure LTF subelement in the Ranging Parameters element in the IFTM frame, and setting its Secure LTF Required field to 1, the RSTA shall also include a Secure LTF Parameters element in the IFTM frame that contains the values of the Validation SAC and Secure LTF Counter subfields.

The secure LTF negotiation supports negotiation of the secure LTF protocol version; see Table 9-413 (Secure LTF protocol section identifier), which allows an RSTA and ISTA to negotiate the highest mutually supported secure LTF protocol version. The secure LTF protocol version is indicated in the Protocol Version field within the Secure LTF subelement. If an RSTA includes a Secure LTF element

*TGbk editor, make changes identified below to clause 11.21.6.4.5 as follows:*

**11.21.6.4.5 Secure LTF in the TB and non-TB ranging measurement exchange protocol**

1. See http://www.wi-fi.org. [↑](#footnote-ref-1)