IEEE P802.11
Wireless LANs

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| --- |
| CR on HE PHY MIB attributes |
| Date: 2018-05-04 |
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This submission present a resolution for CIDs 13384, 13386, 13387, 13388, and 13385. The proposed changes are based on Table 28-50 of P802.11ax D2.3.

##### Revision history:

##### R0 – initial version

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 13384 | 28.4 | 515 | 8 | Doppler needs to be split in RX and TX missing | Add to table as in comment. | Revised.Agree in principle but the changes are needed in not only clause 28 but also in Annex C.TGax Editor: Please change the text as indicated in doc.: IEEE 802.11-18/07650. |

***Discussion:***

As per Table 9-262aa, there are Doppler RX and Doppler TX subfields, but the attributes related to Doppler in Table 28-50 and Annex C, namely dot11HEDopplerImplemented and dot11HEDopplerActivated, do not distinguish between TX and RX.

***Proposed resolution:***

***Revised***

***To TGax editor: Please replace dot11HEDopplerImplemented and dot11HEDopplerActivated from 571.52 to 571.55 in Table 28-50 of P802.11ax D2.3 with the proposed changes below.***

|  |  |  |
| --- | --- | --- |
| dot11HEDopplerTXImplemented | false/Boolean | Static |
| dot11HEDopplerTXActivated | false/Boolean | Dynamic |
| dot11HEDopplerRXImplemented | false/Boolean | Static |
| dot11HEDopplerRXActivated | false/Boolean | Dynamic |

***To TGax editor: Please replace dot11HEDopplerImplemented and dot11HEDopplerActivated in Dot11PhyHEEntry from 635.9 to 635.10 of Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

Dot11PhyHEEntry ::=

 SEQUENCE {

 dot11HECCAIndicationMode INTEGER,

 …

 dot11HEDopplerTXImplemented TruthValue,

 dot11HEDopplerTXActivated TruthValue,

 dot11HEDopplerRXImplemented TruthValue,

 dot11HEDopplerRXActivated TruthValue,

 …

 dot11HEPartialBWERSUPayloadActivated TruthValue

 }

***To TGax editor: Please replace dot11HEDopplerImplemented and dot11HEDopplerActivated from 635.28 to 635.48 of Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

dot11HEDopplerTXImplemented OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities."

 DEFVAL { false }

::= { dot11PhyHEEntry 25 }

dot11HEDopplerTXActivated OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is a control variable.

 It is written by an external management entity.

 Changes take effect as soon as practical in the implementation."

 DEFVAL { false }

::= { dot11PhyHEEntry 26 }

dot11HEDopplerRXImplemented OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities."

 DEFVAL { false }

::= { dot11PhyHEEntry TBD }

dot11HEDopplerRXActivated OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is a control variable.

 It is written by an external management entity.

 Changes take effect as soon as practical in the implementation."

 DEFVAL { false }

::= { dot11PhyHEEntry TBD }

***To TGax editor: Please replace dot11HEDopplerImplemented and dot11HEDopplerActivated in dot11PhyHEComplianceGroup from 647.2 to 647.3 of Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

dot11PhyHEComplianceGroup OBJECT-GROUP

 OBJECTS {

 dot11HEDualBandImplemented,

 …

 dot11HEDopplerTXImplemented,

 dot11HEDopplerTXActivated,

 dot11HEDopplerRXImplemented,

 dot11HEDopplerRXActivated,

 …

 dot11HEPartialBWERSUPayloadActivated }

 STATUS current

 DESCRIPTION

 "Attributes that configure the HE PHY."

 ::= { dot11Groups <ANA> }

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 13386 | 28.4 | 515 | 8 | HE MUPPDU with 4x HELTF and 0.8GI missing | Add to table as in comment. | Revised.Agree in principle but the changes are needed in not only clause 28 but also in Annex C.TGax Editor: Please change the text as indicated in doc.: IEEE 802.11-18/07650. |

***Discussion:***

As per Table 9-262aa, there is a HE SU PPDU And HE MU PPDU With 4x HE-LTF And 0.8 µs GI subfield:

|  |  |  |
| --- | --- | --- |
| HE SU PPDU And HE MU PPDU With 4x HE-LTF And 0.8 s GI | Indicates support for the reception of an HE SU PPDU and HE MU PPDU with 4x LTF and 0.8 s guard interval duration. | Set to 0 if not supported.Set to 1 if supported.This subfield is set to 1 if the HE ER SU PPDU With 4x HE-LTF And 0.8 µs GI subfield is 1. |

However, the names of the attributes related to this subfield in Table 28-50 and Annex C, namely dot11HESUPPDUwith4xHELTFand0point8GIlmplemented and dot11HESUPPDUwith4xHELTFand0point8GIActivated, are confusing because the info about MU is missing in the names:

|  |
| --- |
| **dot11PHYHETable** |
| dot11HEDualBandImplemented | false/Boolean | Static |
| … | … | … |
| dot11HESUPPDUwith4xHELTFand0point8GIlmplemented | false/Boolean | Static |
| dot11HESUPPDUwith4xHELTFand0point8GIActivated | false/Boolean | Dynamic |

***Proposed resolution:***

***Revised***

***To TGax editor: Please replace dot11HESUPPDUwith4xHELTFand0point8GIlmplemented and dot11HESUPPDUwith4xHELTFand0point8GIActivated from 571.31 to 571.35 in Table 28-50 of P802.11ax D2.3 with the proposed changes below.***

|  |
| --- |
| **dot11PHYHETable** |
| dot11HEDualBandImplemented | false/Boolean | Static |
| … | … | … |
| dot11HESUPPDUandHEMUPPDUwith4xHELTFand0point8GIlmplemented | false/Boolean | Static |
| dot11HESUPPDUandHEMUPPDUwith4xHELTFand0point8GIActivated | false/Boolean | Dynamic |

***To TGax editor: Please replace dot11HESUPPDUwith4xHELTFand0point8GIlmplemented and dot11HESUPPDUwith4xHELTFand0point8GIActivated in Dot11PhyHEEntry from 634.61 to 634.62 in Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

Dot11PhyHEEntry ::=

 SEQUENCE {

 dot11HECCAIndicationMode INTEGER,

 …

 dot11HESUPPDUandHEMUPPDUwith4xHELTFand0point8GIlmplemented TruthValue,

 dot11HESUPPDUandHEMUPPDUwith4xHELTFand0point8GIActivated TruthValue,

 …

 dot11HEPartialBWERSUPayloadActivated TruthValue

 }

***To TGax editor: Please replace dot11HESUPPDUwith4xHELTFand0point8GIlmplemented and dot11HESUPPDUwith4xHELTFand0point8GIActivated from 637.30 to 637.50 of Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

dot11HESUPPDUandHEMUPPDUwith4xHELTFand0point8GIImplemented OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities."

 DEFVAL { false }

::= { dot11PhyHEEntry 13 }

dot11HESUPPDUandHEMUPPDUwith4xHELTFand0point8GIActivated OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is a control variable.

 It is written by an external management entity.

 Changes take effect as soon as practical in the implementation."

 DEFVAL { false }

::= { dot11PhyHEEntry 14 }

***To TGax editor: Please replace dot11HESUPPDUwith4xHELTFand0point8GIlmplemented and dot11HESUPPDUwith4xHELTFand0point8GIActivated in dot11PhyHEComplianceGroup from 646.59 to 646.60 of Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

dot11PhyHEComplianceGroup OBJECT-GROUP

 OBJECTS {

 dot11HEDualBandImplemented,

 …

 dot11HESUPPDUandHEMUPPDUwith4xHELTFand0point8GIlmplemented,

 dot11HESUPPDUandHEMUPPDUwith4xHELTFand0point8GIActivated,

 …

 dot11HEPartialBWERSUPayloadActivated }

 STATUS current

 DESCRIPTION

 "Attributes that configure the HE PHY."

 ::= { dot11Groups <ANA> }

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 13387 | 28.4 | 515 | 8 | HE ER PPDU with 4x HELTF and 0.8GI missing | Add to table as in comment. | Revised.Agree in principle but the changes are needed in not only clause 28 but also in Annex C.TGax Editor: Please change the text as indicated in doc.: IEEE 802.11-18/07650. |
| 13388 | 28.4 | 515 | 8 | HE ER PPDU with 1x HELTF and 0.8GI missing | Add to table as in comment. | Revised.Agree in principle but the changes are needed in not only clause 28 but also in Annex C.TGax Editor: Please change the text as indicated in doc.: IEEE 802.11-18/07650. |

***Discussion:***

As per Table 9-262aa, there are a HE ER SU PPDU With 4x HE-LTF And 0.8 µs GI subfield and a HE ER SU PPDU With 1x HE-LTF And 0.8 µs GI subfield:

|  |  |  |
| --- | --- | --- |
| HE ER SU PPDU With 4x HE-LTF And 0.8 s GI | Indicates support for the reception of an HE ER SU PPDU with 4x LTF and 0.8 s guard interval duration. | Set to 0 if not supported.Set to 1 if supported. |
| HE ER SU PPDU With 1x HE-LTF And 0.8 s GI | Indicates support of the reception of an HE ER SU PPDU with 1x LTF and 0.8 s guard interval duration. | Set to 0 if not supported. Set to 1 if supported. |

However, the attributes of these two subfields are missing in Table 28-50.

***Proposed resolution:***

***Revised***

***To TGax editor: Please add the following 4 attributes before the entry dot11HENDPwith4xHELTFand3point2GIImplemented at 571.35 in Table 28-50 of P802.11ax D2.3.***

|  |
| --- |
| **dot11PHYHETable** |
| dot11HEDualBandImplemented | false/Boolean | Static |
| … | … | … |
| dot11HEERSUPPDUwith4xHELTFand0point8GIImplemented | false/Boolean | Static |
| dot11HEERSUPPDUwith4xHELTFand0point8GIActivated | false/Boolean | Dynamic |
| dot11HEERSUPPDUwith1xHELTFand0point8GIImplemented | false/Boolean | Static |
| dot11HEERSUPPDUwith1xHELTFand0point8GIActivated | false/Boolean | Dynamic |
| dot11HENDPwith4xHELTFand3point2GIImplemented | false/Boolean | Static |

***To TGax editor: Please add the following 4 attributes in Dot11PhyHEEntry before dot11HENDPwith4xHELTFand3point2GIImplemented at 634.63 of Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

Dot11PhyHEEntry ::=

 SEQUENCE {

 dot11HECCAIndicationMode INTEGER,

 …

 dot11HEERSUPPDUwith4xHELTFand0point8GIImplemented TruthValue

 dot11HEERSUPPDUwith4xHELTFand0point8GIActivated TruthValue

 dot11HEERSUPPDUwith1xHELTFand0point8GIImplemented TruthValue

 dot11HEERSUPPDUwith1xHELTFand0point8GIActivated TruthValue

 dot11HENDPwith4xHELTFand3point2GIImplemented TruthValue,

 …

 dot11HEPartialBWERSUPayloadActivated TruthValue

 }

***To TGax editor: Please add the following 4 attritbutes before dot11HENDPwith4xHELTFand3point2GIImplemented at 637.40 in Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

dot11HEERSUPPDUwith4xHELTFand0point8GIImplemented OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities."

 DEFVAL { false }

::= { dot11PhyHEEntry TBD }

dot11HEERSUPPDUwith4xHELTFand0point8GIActivated OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is a control variable.

 It is written by an external management entity.

 Changes take effect as soon as practical in the implementation."

 DEFVAL { false }

::= { dot11PhyHEEntry TBD }

dot11HEERSUPPDUwith1xHELTFand0point8GIImplemented OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities."

 DEFVAL { false }

::= { dot11PhyHEEntry TBD }

dot11HEERSUPPDUwith1xHELTFand0point8GIActivated OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is a control variable.

 It is written by an external management entity.

 Changes take effect as soon as practical in the implementation."

 DEFVAL { false }

::= { dot11PhyHEEntry TBD }

***To TGax editor: Please add the following 4 attributes in dot11PhyHEComplianceGroup before dot11HENDPwith4xHELTFand3point2GIImplemented at 646.61 in Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

dot11PhyHEComplianceGroup OBJECT-GROUP

 OBJECTS {

 dot11HEDualBandImplemented,

 …

 dot11HEERSUPPDUwith4xHELTFand0point8GIImplemented TruthValue

 dot11HEERSUPPDUwith4xHELTFand0point8GIActivated TruthValue

 dot11HEERSUPPDUwith1xHELTFand0point8GIImplemented TruthValue

 dot11HEERSUPPDUwith1xHELTFand0point8GIActivated TruthValue

 dot11HENDPwith4xHELTFand3point2GIImplemented,

 …

 dot11HEPartialBWERSUPayloadActivated }

 STATUS current

 DESCRIPTION

 "Attributes that configure the HE PHY."

 ::= { dot11Groups <ANA> }

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 13385 | 28.4 | 515 | 8 | SRP missing | Add to table as in comment. | Revised.Agree in principle but the changes are needed in not only clause 28 but also in Annex C.TGax Editor: Please change the text as indicated in doc.: IEEE 802.11-18/07650. |

***Discussion:***

As per Table 9-262aa, there is a SRP-based SR Support subfield:

|  |  |  |
| --- | --- | --- |
| SRP-based SR Support | Indicates support for SRP-based SR operation. | Set to 0 if not supported.Set to 1 if supported. |

However, the attributes of this subfield are missing in Table 28-50.

***Proposed resolution:***

***Revised***

***To TGax editor: Please add the following 2 attributes before the entry dot11HEPowerBoostFactorImplemented at 572.18 in Table 28-50 of P802.11ax D2.3.***

|  |
| --- |
| **dot11PHYHETable** |
| dot11HEDualBandImplemented | false/Boolean | Static |
| … | … | … |
| dot11SRPbasedSRSupportImplemented | false/Boolean | Static |
| dot11SRPbasedSRSupportActivated | false/Boolean | Dynamic |
| dot11HEPowerBoostFactorImplemented | false/Boolean | Static |

***To TGax editor: Please add the following 2 attributes in Dot11PhyHEEntry before dot11HEPowerBoostFactorImplemented at 635.21 of Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

Dot11PhyHEEntry ::=

 SEQUENCE {

 dot11HECCAIndicationMode INTEGER,

 …

 dot11SRPbasedSRSupportImplemented TruthValue,

 dot11SRPbasedSRSupportActivated TruthValue,

 dot11HEPowerBoostFactorImplemented TruthValue,

 …

 dot11HEPartialBWERSUPayloadActivated TruthValue

 }

***To TGax editor: Please add the following 2 attritbutes before dot11HEPowerBoostFactorImplemented at 641.24 in Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

dot11SRPbasedSRSupportImplemented OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities."

 DEFVAL { false }

::= { dot11PhyHEEntry TBD }

dot11SRPbasedSRSupportActivated OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is a control variable.

 It is written by an external management entity.

 Changes take effect as soon as practical in the implementation."

 DEFVAL { false }

::= { dot11PhyHEEntry TBD }

***To TGax editor: Please add the following 2 attributes in dot11PhyHEComplianceGroup before dot11HEPowerBoostFactorImplemented at 647.14 in Annex C.3 of P802.11ax D2.3 with the proposed changes below.***

dot11PhyHEComplianceGroup OBJECT-GROUP

 OBJECTS {

 dot11HEDualBandImplemented,

 …

 dot11SRPbasedSRSupportImplemented,

 dot11SRPbasedSRSupportActivated

 dot11HEPowerBoostFactorImplemented,

 …

 dot11HEPartialBWERSUPayloadActivated }

 STATUS current

 DESCRIPTION

 "Attributes that configure the HE PHY."

 ::= { dot11Groups <ANA> }