IEEE P802.11  
Wireless LANs

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| PDT for PHY MIB Variable  Related to 242RU Support in Annex C | | | | |
| Date: 2021-04-16 | | | | |
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Abstract

This submission proposes the draft text for dot11EHTSupportFor242ToneRUInBWWiderThan20Implemented in Annex C.

Revisions:

* Rev 0: Initial version of the document.

References:

[1] 802.11-21/0401r1 CR for CID 1253 and 1306

**Discussion**

In [1], a new PHY MIB “dot11EHTSupportFor242ToneRUInBWWiderThan20Implemented” was defined. The value of “dot11EHTSupportFor242ToneRUInBWWiderThan20Implemented” is used to set the PHY capability subfield “Support For 242-tone RU In BW Wider Than 20 MHz”. The “Support For 242-tone RU In BW Wider Than 20 MHz” subfield is used to indicate support of 242-tone RUs for 20 MHz operating STAs in wider BW.

This document proposes texts for “dot11EHTSupportFor242ToneRUInBWWiderThan20Implemented” in Annex C.

*TGbe Editor: Please add the following text to Annex C3.1:*

***Change dot11PHYType as follows:***

dot11PHYType OBJECT-TYPE

SYNTAX INTEGER {

fhss(1),

dsss(2),

irbaseband(3),

ofdm(4),

hrdsss(5),

erp(6),

ht(7)

dmg(8),

vht(9),

tvht(10),

s1g(11),

cdmg(12),

cmmg(13),

he (14),

eht(ANA)}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a status variable.

It is written by the PHY.

This is an 8-bit integer value that identifies the PHY type supported by

the attached PLCP and PMD. Currently defined values and their corresponding

PHY types are:

FHSS 2.4 GHz = 01, DSSS 2.4 GHz = 02, IR Baseband = 03,

OFDM = 04, HRDSSS = 05, ERP = 06, HT = 07, DMG = 08, VHT = 09,

TVHT = 10, S1G = 11, CDMG = 12, CMMG = 13, HE = 14, EHT = ANA"

::= { dot11PhyOperationEntry 1 }

***Add the following at the end of the list in dot11Phy:***

dot11phy OBJECT IDENTIFIER ::= { ieee802dot11 4 }

-- PHY GROUPS

…

-- dot11PhyEHTTable ::= { dot11phy <ANA> }

***Add the following description for dot11PhyEHTTable:***

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

-- \* dot11 Phy EHT TABLE

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

dot11PhyEHTTable OBJECT-TYPE

SYNTAX SEQUENCE OF Dot11PhyEHTEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Entry of attributes for dot11PhyEHTTable. Implemented as a table indexed

on ifIndex to allow for multiple instances on an Agent."

::= { dot11phy <ANA> }

dot11PhyEHTEntry OBJECT-TYPE

SYNTAX Dot11PhyEHTEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"An entry in dot11PhyEHTEntryTable. ifIndex - Each IEEE Std 802.11

interface is represented by an ifEntry. Interface tables in this MIB

module are indexed by ifIndex."

INDEX {ifIndex}

::= { dot11PhyEHTTable 1 }

Dot11PhyEHTEntry ::=

SEQUENCE {

dot11EHTSupportFor242ToneRUInBWWiderThan20Implemented TruthValue,

}

dot11EHTSupportFor242ToneRUInBWWiderThan20Implemented 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 the STA is capable of receiving

a 242-tone RU in a PPDU with a bandwidth larger than 20 MHz. This capability

is disabled otherwise."

DEFVAL { false }

::= { dot11PhyEHTEntry 1 }

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

-- \* End of dot11 Phy EHT TABLE

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

***Add the following in the dot11PhyEHTComplianceGroup object:***

dot11PhyEHTComplianceGroup OBJECT-GROUP

OBJECTS {

dot11EHTSupportFor242ToneRUInBWWiderThan20Implemented}

STATUS current

DESCRIPTION

"Attributes that configure the EHT PHY."

::= { dot11Groups <ANA> }

***Change the dot11Compliance object as follows:***

dot11Compliance MODULE-COMPLIANCE

STATUS current

DESCRIPTION

"The compliance statement for SNMPv2 entities that implement the IEEE

802.11 MIB."

MODULE -- this module

MANDATORY-GROUPS {

dot11SMTbase16,

dot11MACbase4,

dot11CountersGroup3,

dot11SmtAuthenticationAlgorithms,

dot11ResourceTypeID,

dot11PhyOperationComplianceGroup2 }

GROUP dot11PhyDSSSComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType is

dsss.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11PhyHTComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyOFDMComplianceGroup3

DESCRIPTION

"Implementation of this group is required when object dot11PHYType is

ofdm.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11PhyHTComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyHRDSSSComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType is

hrdsss.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyERPComplianceGroup

dot11PhyHTComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyERPComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType is ERP.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyHTComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyHTComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType has the

value of ht.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyVHTComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType has the

value of vht.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11DMGComplianceGroup

dot11PhyHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyTVHTComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType has the

value of tvht.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11PhyHTComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyS1GComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType has the

value of s1g.

This group is mutually exclusive to the following groups:

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11PhyHTComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyHEComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType has the

value of HE.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11PhyHTComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11DMGComplianceGroup

DESCRIPTION

"Implementation of this group is required when the object dot11PHYType is dmg.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11PhyHTComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup

dot11PhyEHTComplianceGroup"

GROUP dot11PhyEHTComplianceGroup

DESCRIPTION

"Implementation of this group is required when object dot11PHYType has the

value of EHT.

This group is mutually exclusive to the following groups:

dot11PhyIRComplianceGroup

dot11PhyFHSSComplianceGroup2

dot11PhyDSSSComplianceGroup

dot11PhyOFDMComplianceGroup3

dot11PhyHRDSSSComplianceGroup

dot11PhyERPComplianceGroup

dot11PhyHTComplianceGroup

dot11DMGComplianceGroup

dot11PhyVHTComplianceGroup

dot11PhyTVHTComplianceGroup

dot11PhyS1GComplianceGroup

dot11PhyHEComplianceGroup"