IEEE P802.11
Wireless LANs

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| Comment resolution on MIBs for LB238 |
| Date: 2019-09-16 |
| Author: |
| Name | Affiliation | Address | Phone | Email |
| Edward Au | Huawei Technologies | 303 Terry Fox Drive, Suite 400, Ottawa, Ontario K2K 3J1 |  | edward.ks.au@gmail.com |

This submission present a resolution for CIDs 20550, 20667, 21306, 20551, 20978, 20503, 20649, and 20502. The proposed changes are based on P802.11ax D4.2.

##### Revision history:

##### R0 – initial version

R1 – Updated the status of the CIDs per the discussion on August 8

R2 – Updated the resolution of CID 20978

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| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 20550 | C.3 | 706 |  | The DESCRIPTION need not give min/max since these are in the SYNTAX | In C.3 delete " The minimum value of this variable is 50." and " The maximum value of this variable is 10." | Accepted |

Discussion:

The commenter refers to dot11BSSColorCollisionAPPeriod at 722.40 and dot11BSSColorCollisionSTAPeriod at 722.51 as follows:



Since the maximum and minimum values of each of these two MIBs are already given in the syntax, the commenter is correct that the corresponding description is no longer needed.

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| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 20667 | C.3 | 709 | 16 | "Reduced Neighbor List element" -- no such element | Change to "Reduced Neighbor Report elements" | Accepted |
| 21306 | C |  |  | No such thing as a Reduced Neighbor List element | Change to Reduced Neighbor Report element | Accepted |

Discussion:

The term “Reduced Neighbor List element” appears in dot11ColocatedRNRImplemented.



As per clause 9.4.2.170, the correct name is “Reduced Neighbor Report element”.

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| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 20551 | C.3 | 727 |  | "This attribute, when true, indicates the maximum number of space-time streams" -- can't simultaneously be Boolean and integer | In C.3 delete ", when true," in "This attribute, when true, indicates the maximum number of space-time streams" (2x) | Accepted |

Discussion:

The commenter is correct that the following two MIB variables at 746.37 and 746.54 are not Boolean varibales (as observed from SYNTAX Unsigned32) and therefore, the description “, when true” is unnecessary.



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| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 20978 | C.3 | 715 | 64 | I don't think this is just for non-AP STAs | Delete " non-AP" at the referenced location | RevisedAgree in principle. Please refer to the changes as shown in 19/1236r2. |

Discussion:

The commenter refers to dot11HELDPCCodingInPayloadImplemented as follows.



In page 466 of D4.3,

An HE STA shall support the following features:

—LDPC coding (transmit and receive) in all supported HE PPDU types, RU sizes, and number of spatial streams if the STA supports transmitting and receiving in channel bandwidths greater than 20 MHz.

—LDPC coding (transmit and receive) in all supported HE PPDU types, RU sizes, and number of spatial streams if the STA declares support for transmitting or receiving more than 4 spatial streams.

—LDPC coding (transmit and receive) in all supported HE PPDU types, RU sizes, and number of spatial streams if the STA declares support for HE-MCSs 10 and 11 (transmit and receive).

In page 467 of D4.3,

An HE STA may support the following features:

—LDPC coding (transmit and receive) if the maximum number of spatial strstreams the STA is capable of transmitting or receiving in an HE SU PPDU is less than or equal to 4.

In Table 9-321b of D4.3,

The LDPC Coding In Payload subfield is set to 1 by a STA that supports more than 4 spatial streams, an HE PPDU bandwidth greater than 20 MHz, HE-MCS 10 or HE-MCS 11.

In page 267 of D4.3,

An HE STA shall not transmit a frame in an HE PPDU(#20977) with the TXVECTOR parameter FEC\_CODING set to LDPC\_CODING unless frame is addressed to an HE STA for which the LDPC Coding In Payload subfield of the HE Capabilities element received from that STA contained a value of 1 and dot11HELDPCCodingInPayloadActivated is true.

**Proposed resolution**

**Revised**

In page 752 of D4.3, change the description of dot11HELDPCCodingInPayloadImplemented as follos:

dot11HELDPCCodingInPayloadImplemented 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 ~~non-AP~~ STA, which supports more than 4 spatial streams, an HE PPDU bandwidth greater than 20 MHz, HE-MCS 10 or HE-MCS 11, is capable of transmitting and receiving LDPC encoded packets. This capability is disabled otherwise."

 DEFVAL { false }

::= { dot11PhyHEEntry 6}

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| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 20503 | C.3 | 714 | 53 | There is no point reserving a dot11HECurrentChannelWidthSet value | Change the upper limit to 5 and delete ", and the value 6 is reserved" | RejectThe main reason “the value 6 is reserved” is because of the structure of the Supported Channel Width Set subfield of the HE PHY Capabilities Information field (c.f., Figure 9-772c). In particular, as referred to Table 9-321b below, the Supported Channel Width Set subfield is a 7-bit subfield and B6 is reserved. |

Discussion:



The main reason “the value 6 is reserved” is because of the structure of the Supported Channel Width Set subfield of the HE PHY Capabilities Information field (c.f., Figure 9-772c). In particular, as referred to Table 9-321b below, the Supported Channel Width Set subfield is a 7-bit subfield and B6 is reserved.



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| CID | Clause | Page | Line | Comment | Proposed Change | Resolution |
| 20649 | C.3 | 707 | 13 | dot11HEUPHControlActivated makes no sense. If UL MU is disabled, then it's not relevant. If UL MU is not disabled, then it must be true | Delete lines 707.13-25, line 702.58, lines 337.62-65. At 338.1 change "A non-AP STA with dot11HEUPHControlActivated equal to true that is scheduled in a Trigger frame or isthe intended receiver of an TRS Control subfield" to "A STA that transmits an HE TB PPDU" and later on in the sentence change " sent in response" to "," and "MPDUs " to "MPDUs (that can carry an HE-variant HT Control field) " | [Deferred] |
| 20502 | C.3 | 707 | 23 | Status variables cannot have a default | Delete "DEFVAL { true }" for dot11HEUPHControlActivated" | [Deferred]RevisedAgree in principle but the MIB dot11HEUPHControlActivatedis deleted per the CID 20649 in 19/1236r0. |

Discussion:

The function of dot11HEUPHControlActivated is to indicate that the capability of transmitting frames with UPH Control subfield is enabled. The default value is true, i.e., the capability is enabled by default.



In clause 26.2.7, it said in NOTE 1 that “A non-AP STA that sends a frame to the AP with an OM Control subfield containing a value of 1 in the UL MU Disable subfield or a value of 0 in the UL MU Disable subfield and a value of 1 in the UL MU Data Disable subfield does not participate in UL MU operation”. It is also documented in Table 9-24a that when the UL MU Disable subfield is set to 1, all triggered UL MU transmission (note UPH is one of them) are suspended by the STA. Therefore, the commenter is correct that dot11HEUPHControlActivated is no longer needed, and the following paragraph can be deleted.



Note to the Editor:

At 340.28 in D4.2 (or equivalently at 338.1 in D4.0), the commenter’s suggested changes are as follows:

A STA that transmits an HE TB PPDU transmits the dB value of its UL power headroom, *HRSTA*, in the UPH Control subfield of MPDUs (that can carry an HE-variant HT Control field) carried in the HE TB PPDU, assist in the AP's MCS selection.

707.13-25, 702.58, lines 337.62-65 in D4.0 refer to 723.37-49, 719.12, and lines 340.23-26.