IEEE P802.11  
Wireless LANs

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| 11mc MIB comment resolutions | | | | |
| Date: 2015-12-09 | | | | |
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Abstract

This document contains the proposed resolutions to some “MIB” category CIDs, and CID 6234.

**CID 5021- GEN**

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| --- | --- | --- | --- | --- | --- | --- |
| 5021 | 3319.48 | C.3 |  |  | In dot11SMTbase13, please includes the followings.  dot11DMGOptionImplemented  dot11VHTOptionImplemented  dot11TVHTOptionImpelemented  Also, check other missing features. | Check whether dot11SMTbase13 has missing other features.  At least, please include the followings.  dot11DMGOptionImplemented  dot11VHTOptionImplemented  dot11TVHTOptionImpelemented |

**Discussion:**

**Dot11SMT base 13 begins at 3319.48**

**The following have been added already:**

dot11MaxMSDULength,(#3211)

dot11ExtendedSpectrumManagementImplemented(#3479)}

**Proposed resolution: Revised**

At 3314.20, insert dot11TVHTOptionImplemented

Note to commenter:

dot11DMGOptionImplemented – Does not need to be added, as a compliance statement exists: dot11DMGComplianceGroup OBJECT-GROUP(11ad)

dot11VHTOptionImplemented – not needed, as a compliance statement exists: dot11VHTCompliance MODULE-COMPLIANCE(11ac)

**CID 5055 - GEN**

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| --- | --- | --- | --- | --- | --- | --- |
| 5055 | 2841.01 | C |  |  | The large numbers of warnings in the MIB makes it difficult for amendments to determine if they are causing any additional warnings. Such additional warnings are not allowed by the 802.11 MDR process. | Compile the MIB. Remove all "not in a group" and "not in a compliance statement" by adding a "bucket" group with optional support from the 802.11 compliance statement. |

**Discussion:**

Check with editors – has MIB compilation been completed? Not for at least a year. About 600 warnings result from compilation. MDR amendment is that amendment compilation does not incease number of warnings.

Remaining portion of proposed resolution does not contain changes in sufficient detail to determine changes that would satisfy the commenter.

**Proposed resolution: Rejected.**

The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.

**CID 6069 GEN**

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| --- | --- | --- | --- | --- | --- | --- |
| 6069 | 3173.12 | C.3 |  |  | With respect to dot11EDCATableTXOPLimit, it doesn't make sense to have a MIB attribute that is a "control variable" but written by the MAC. | If it is at all useful to expose this value externally, make it a status variable. Otherwise, consider removing the MIB attribute completely, as it is only used for the MAC to indicate the value to itself - and that is just a local variable, and not in the MIB. |

**Discussion:**

**The cited text is below:**

****

The commenter proposes two possible solutions, take the first.

**Proposed resolution: Revised**

Change the cited MIB variable definition as shown below:

OBJECT-TYPE

SYNTAX Unsigned32 (0..65535)

UNITS "32 microseconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a status variable.

It is written by the MLME upon receiving an EDCA Parameter Set element.

This attribute specifies the maximum duration of an EDCA TXOP for a given

AC, for a non-AP non-OCB STA. The default value for this attribute is

given (in different units) in Table 8-134 (Default EDCA Parameter Set element

parameter values if dot11OCBActivated is false).

REFERENCE "IEEE Std 802.11-<year>, 8.4.2.28 (EDCA Parameter Set element)"

::= { dot11EDCAEntry 5 }

**CID 6205**

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| --- | --- | --- | --- | --- | --- | --- |
| 6205 | 3184.43 | C.3 |  |  | dot11PNWarningThreshold and dot11PNExhaustionThreshold (p. 3185) are 32-bit but the PN is 48-bit and there is no reason to stop using a PTKSA after 32 bits have been used up. | Change their SYNTAX to "Integer64 (1..281474976710655)" |

**Discussion:**

**The cited text is below:**

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****

The warning threshold should be reached before the 48-bit PN exhaustion, so need a value smaller than 48 bits. PN exhaustion threshold is indicated as “imminent”. So leave the 32 level, so as to not reach exhaustion.

**Proposed resolution: Revised**

Change the syntax values of the two cited variables to

“SYNTAX INTEGER (1..281474976710655)"

And change the DEFVAL values to 281474976710655 from 424967295

At 2842.1, Delete Integer64

And at 2916.2, 2916.4, 2916.60 and 2917.20 from “Integer64” to “INTEGER”

**CID 6249 GEN**

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| --- | --- | --- | --- | --- | --- | --- |
| 6249 | 2841.00 | C.3 |  |  | What does "DEFVAL { short }" mean in for dot11MaxMPDULength? More generally, there shouldn't be defaults for things which are entirely implementation-dependent | Remove the DEFVAL for dot11MaxAMSDULength, dot11MaxMPDULength, dot11TVHTMaxMPDULength and any other implementation-dependent capabilities |

**The cited text from Draft 4.3 showing changes already made is below:**

** **

The DEFVAL refers to the “short (3839)” value.

Similarly

**** These values are consistent with those in Table 8-19 at 587.30.

**Proposed resolution:**

Rejected: The MIB variable default values are chosen from possible valid values, see 587.30.

The DEFVAL values refer to the “short (3839)” and “short(3895)” enumerations.

**CIDS 6538, 6689, 6690, 6705, 6743 (GEN)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 6538 | 2841.00 | C |  |  | C.2 says "When an object is deprecated, add a line to the Description indicating why (IETF convention)." -- there is not always such a line | Add missing justifications |
| 6689 | 2841.00 | C.3 |  |  | Cross-references in the MIB are not good because (a) they do not immediately indicate the spec revision and (b) they are not easily accessible (getIEEE might be discontinued). | Give the information directly, not by cross-reference |
| 6690 | 2841.00 | C.3 |  |  | The format of the REFERENCES in the MIB is not consistent (and some are doubtless missing). | Make those which are there consistent, and add those which are missing |
| 6705 | 2841.00 | C.3 |  |  | Why is dot11TVHTMaxMPDULength needed? Why is dot11MaxMPDULength not good enough? Ditto maybe other TVHT MIB variables. | Remove the spurious MIB variables |
| 6743 | 2841.00 | C.3 |  |  | Why wasn't dot11AuthenticationAlgorithm made the same as dot11AuthenticationAlgorithmIndex? Can we make this change now? | As it says in the comment |

**Proposed resolutions for all of the above: Rejected**

The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.

**CID 6752 (GEN)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 6752 | 2841.00 | C.3 |  |  | Why are there two "dot11CurrentChannelWidth"s et al.? | Delete one of them |

**Discussion:**

There is no specific cited location, the indicated page and line number are to Annex C. The dot11CurrentChannelWidth MIB variable is defined at 3225.25

****

I only see one definition. Unclear what the issue is.

**Proposed resolution: Rejected**

The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.

**CID 6234 (MAC)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 6234 |  |  |  |  | Basic rates/MCSes are by definition a property of the BSS, so "BSS" is superfluous | Delete "BSS" (and fix subsequent capitalisation, where necessary) at 1607.64, 1606.65, 1247.22, 1288.57, 1289.50, 1289.52, 1289.57, 1291.26, 1291.29, 1293.27, 1294.49, 1296.53, 1846.20, 1846.22, 1846.26, 1846.32 |

**Some of the commenter proposed changes are below:**

**At 1606.65**

47How a non-AP STA determines an AP's non-HT rate transmission support is implementation dependent. The non-AP STA might

conservatively use the BSS’s basic rate set, or it might use knowledge of past transmissions by the AP, or it might use other means.

**At 1607,64:**

48How a non-AP STA determines an AP's HT MCS transmission support, if the Tx MCS Set subfield in the HT Capabilities element

advertised by the AP is equal to 0 or if the Tx Rx MCS Set Not Equal subfield in that element is equal to 1, is implementation dependent.

The non-AP STA might conservatively use the BSS’s basic HT MCS set, or it might use knowledge of past transmissions by the

AP, or it might use other means.

**At 1247.22:**

All VHT STAs that are members of a BSS are able to receive and transmit using all of the <VHT-MCS, NSS>

tuples in the BSS’s basic VHT-MCS and NSS set (see 10.40.7 (BSS basic VHT-MCS and NSS set operation))

except as constrained by the rules of 9.7.12 (Rate selection constraints for VHT STAs).

**At 1288.57:**

The SME of a Mesh STA should use the mandatory PHY rates as the default BSSBasicRateSet in the

MLME-START.request primitive to reduce the risk that a candidate peer mesh STA utilizes a different

BSSBasicRateSet. If the mesh STA is also an HT STA, it should adopt the mandatory HT MCSs as the

default basic MCS set. If the mesh STA is also a VHT STA, it should adopt <VHT-MCS, NSS> tuples

formed from the mandatory VHT-MCSs and NSS = 1 as the default basic VHT-MCS and NSS set (see

10.40.7 (BSS basic VHT-MCS and NSS set operation)).

**At 1846.20, 22, 26, 32**

**10.40.7 Basic VHT-MCS and NSS set operation**

The BSS’s Basic VHT-MCS and NSS set is the set of <VHT-MCS, NSS> tuples that are supported by all VHT

STAs that are members of a VHT BSS. It is established by the STA that starts the VHT BSS, indicated by

the Basic VHT-MCS and NSS Set field of the VHT Operation parameter in the MLME-START.request

primitive. Other VHT STAs determine the BSS’s Basic VHT-MCS and NSS set from the Basic VHT-MCS

and NSS Set field of the VHT Operation element in the BSSDescription derived through the scan

mechanism (see 10.1.4.1 (General)).

A VHT STA shall not attempt to join (MLME-JOIN.request primitive) a BSS unless it supports (i.e., is able

to both transmit and receive using) all of the <VHT-MCS, NSS> tuples in the BSS’s Basic VHT-MCS and

NSS set.

A VHT STA shall not attempt to (re)associate (MLME-ASSOCIATE.request primitive and MLMEREASSOCIATE.

request primitive) with a VHT AP unless the STA supports (i.e., is able to both transmit

and receive using) all of the <VHT-MCS, NSS> tuples in the Basic VHT-MCS and NSS Set field in the

VHT Operation element transmitted by the AP.

**At 1289.50, 52, 27**

If the BSSBasicRateSet parameter is empty and the Basic MCS Set field of the HT Operation parameter of

the MLME-START.request primitive or Basic MCS Set field of the HT Operation parameter of the

SelectedBSS parameter of the MLME-JOIN.request primitive is empty and the BSS’s Basic VHT-MCS and

NSS set is not empty, the frame shall be transmitted in a VHT PPDU using one of the <VHT-MCS. NSS>

tuples included in the BSS’s Basic VHT-MCS and NSS set.

If the BSSBasicRateSet parameter, the Basic MCS Set field of the HT Operation parameter of the MLMESTART.

request primitive or Basic MCS Set field of the HT Operation parameter of the SelectedBSS

parameter of the MLME-JOIN.request primitive, and the BSS’s Basic VHT-MCS and NSS set are empty (e.g.,

a scanning STA that is not yet associated with a BSS), the frame shall be transmitted in a non-HT PPDU using

one of the mandatory PHY rates.

**At 1291.26, 29**

When the supported rate set of the receiving STA or STAs is not known, the transmitting STA shall transmit

using a rate in the BSSBasicRateSet parameter, or an MCS in the Basic MCS Set field of the HT Operation

parameter of the MLME-START.request primitive or Basic MCS Set field of the HT Operation parameter

of the SelectedBSS parameter of the MLME-JOIN.request primitive, or a <VHT-MCS, NSS> tuple in the

BSS’s Basic VHT-MCS and NSS set, or a rate from the mandatory rate set of the attached PHY if the

BSSBasicRateSet, the Basic MCS Set field of the HT Operation parameter of the MLME-START.request

primitive or Basic MCS Set field of the HT Operation parameter of the SelectedBSS parameter of the

MLME-JOIN.request primitive, and the BSS’s Basic VHT-MCS and NSS set are empty.

At 1293.27, 1294.49, and 1296.53, change as shown:

the BSS’s Basic VHTMCS and NSS set

**Proposed resolution: Revised**

Incorporate the text changes in 11-15-1504r1 under CID 6234

**References:**

<https://mentor.ieee.org/802.11/dcn/15/11-15-0532-24-000m-revmc-sponsor-ballot-comments.xls>