IEEE P802.11  
Wireless LANs

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| Suggested resolution to MIB comments | | | | |
| Date: 2018-09-11 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | email |
| Kazuyuki Sakoda | Sony |  |  | Kazuyuki.Sakoda (at) sony (dot) com |
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Abstract

This document provides suggested resolutions to CID 1245, 1246, and 1247. They are all related to error in MIB definitions.

R0: initial proposal.

# Comment:

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| --- | --- | --- | --- | --- |
| **CID** | **PP.LL** | **Comment** | **Proposed Change** | **Suggested Resolution** |
| 1247 | 3764.07 | dot11STACivicLocation is a control variable, but its MAX-ACCESS is not-accessible. Why we cannot access it? | Please clarify. | REVISED:   Adopt changes proposed in doc11-18/xxx. |

# Discussion:

MAX-ACCESS of the dot11STACivicLocation is supposed to be read-write, as it is a control variable written by an external management entity or the SME.

However, there are some more issue with the MIB variable. There is no reference to dot11STACivicLocation in main body of the standard. The same thing apply to dot11STACivicLocationType.

Furthermore, it seems that dot11STACivicLocationConfigTable is poorly defined and probably does not pass MIB compilation. In description of “dot11RMCivicConfigured”, there is a reference to dot11STACivicLocationEntry. However, dot11STACivicLocationEntry is not defined anywhere.

# Suggested resolution:

**Option 1**: Remove the following MIB definitions:

* dot11STACivicLocationType
* dot11STACivicLocation
* dot11STACivicLocationConfigTable
* dot11STACivicLocationConfiguration
* dot11STACivicLocationConfig.
* Also, remove reference to dot11STACivicLocationEntry inside the description of the dot11RMCivicConfigured.

**Option 2**: Change MAX-ACCESS of the dot11STACivicLocation as follows:

dot11STACivicLocation OBJECT-TYPE

SYNTAX OCTET STRING

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by an external management entity or the SME.

Changes take effect as soon as practical in the implementation.

Civic Location is defined in 9.4.2.21.13 (Location Civic report)."

::= { dot11STACivicLocationConfiguration 2 }

# Comment:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **PP.LL** | **Comment** | **Proposed Change** | **Suggested Resolution** |
| 1246 | 3860.57 | dot11S1GTravelingPilotOptionActivated is a control variable, but its MAX-ACCESS is read-only. It should be read-write. The same problem are seen with dot11S1GLONGOptionActivated, dot11NonAPStationAuthAccessCategories, dot11NonAPStationAuthMaxVideoRate, dot11NonAPStationAuthMaxBestEffortRate, dot11NonAPStationAuthMaxBackgroundRate, dot11NonAPStationAuthMaxVoiceOctets, dot11NonAPStationAuthMaxVideoOctets, dot11NonAPStationAuthMaxBestEffortOctets, dot11NonAPStationAuthMaxBackgroundOctets, dot11NonAPStationAuthMaxHCCAHEMMOctets, dot11NonAPStationAuthMaxTotalOctets, dot11NonAPStationAuthMaxHCCAHEMMRate, etc. | Replace "read-only" with "read-write" w.r.t. the variables cited in the comment. | REVISED:   Adopt changes proposed in doc11-18/xxx. |

# Discussion:

Need some clarification from ARC SC chairperson.

# Suggested resolution:

dot11S1GTravelingPilotOptionActivated 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.

This attribute, when true, indicates that the traveling pilot option is enabled."

DEFVAL { false }

::= { dot11PhyS1GEntry 27 }

dot11S1GLONGOptionActivated 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.

This attribute, when true, indicates that the S1G\_Long operation is enabled."

DEFVAL { false }

::= { dot11PhyS1GEntry 29 }

dot11NonAPStationAuthAccessCategories OBJECT-TYPE

SYNTAX BITS {

bestEffort(0),

background(1),

video(2),

voice(3)

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

The object that represents the access categories which the non-AP STA is permitted to use when admission control is configured on that AC. An AC is permitted to be used if its corresponding bit is set to 1; otherwise it is not permitted to be used."

DEFVAL { { bestEffort, background, video, voice } }

::= { dot11InterworkingEntry 7 }

dot11NonAPStationAuthMaxVoiceRate OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

UNITS "kb/s"

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized data rate the non-AP STA may use, either transmitting to an AP or receiving from an AP on the voice access category. If this rate is exceeded, the AP should police the flows traversing this AC. The value '4294967295', which is the default value, means that the SSP is not requesting the AP to limit the data rate used by the non-AP STA. Local configuration of the AP, however, might cause(#229) the rate to be limited, especially when the AC is configured for mandatory admission control."

DEFVAL {4294967295}

::= { dot11InterworkingEntry 8 }

dot11NonAPStationAuthMaxVideoRate OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

UNITS "kb/s"

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized data rate the non-AP STA may use, either transmitting to an AP or receiving from an AP on the video access category. If this rate is exceeded, the AP should police the flows traversing this AC. The value '4294967295', which is the default value, means that the SSP is not requesting the AP to limit the data rate used by the non-AP STA. Local configuration of the AP, however, might cause(#229) the rate to be limited, especially when the AC is configured for mandatory admission control."

DEFVAL {4294967295}

::= { dot11InterworkingEntry 9 }

dot11NonAPStationAuthMaxBestEffortRate OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

UNITS "kb/s"

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized data rate the non-AP STA may use, either transmitting to an AP or receiving from an AP on the best effort access category. If this rate is exceeded, the AP should police the flows traversing this AC. The value '4294967295', which is the default value, means that the SSP is not requesting the AP to limit the data rate used by the non-AP STA. Local configuration of the AP, however, might cause(#229) the rate to be limited, especially when the AC is configured for mandatory admission control."

DEFVAL {4294967295}

::= { dot11InterworkingEntry 10 }

dot11NonAPStationAuthMaxBackgroundRate OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

UNITS "kb/s"

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized data rate the non-AP STA may use, either transmitting to an AP or receiving from an AP on the background access category. If this rate is exceeded, the AP should police the flows traversing this AC. The value '4294967295', which is the default value, means that the SSP is not requesting the AP to limit the data rate used by the non-AP STA. Local configuration of the AP, however, might cause(#229) the rate to be limited, especially when the AC is configured for mandatory admission control."

DEFVAL {4294967295}

::= { dot11InterworkingEntry 11 }

dot11NonAPStationAuthMaxVoiceOctets OBJECT-TYPE

SYNTAX Unsigned32 (0..4294967295)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized total octet count that a STA may use on the voice access category. If this octet count is exceeded, the AP should disassociate the non-AP STA. A value of 0 indicates that there is no octet limit."

DEFVAL {0}

::= { dot11InterworkingEntry 12 }

dot11NonAPStationAuthMaxVideoOctets OBJECT-TYPE

SYNTAX Unsigned32 (0..4294967295)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized total octet count that a STA may use on the video access category. If this octet count is exceeded, the AP should disassociate the non-AP STA. A value of 0 indicates that there is no octet limit."

DEFVAL {0}

::= { dot11InterworkingEntry 13 }

dot11NonAPStationAuthMaxBestEffortOctets OBJECT-TYPE

SYNTAX Unsigned32 (0..4294967295)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized total octet count that a STA may use on the best effort access category. If this octet count is exceeded, the AP should disassociate the non-AP STA. A value of 0 indicates that there is no octet limit."

DEFVAL {0}

::= { dot11InterworkingEntry 14 }

dot11NonAPStationAuthMaxBackgroundOctets OBJECT-TYPE

SYNTAX Unsigned32 (0..4294967295)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized total octet count that a STA may use on the background access category. If this octet count is exceeded, the AP should disassociate the non-AP STA. A value of 0 indicates that there is no octet limit."

DEFVAL {0}

::= { dot11InterworkingEntry 15 }

dot11NonAPStationAuthMaxHCCAHEMMOctets OBJECT-TYPE

SYNTAX Unsigned32 (0..4294967295)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized total octet count that a STA may use with HCCA or HEMM access. If this octet count is exceeded, the AP should disassociate the non-AP STA. A value of 0 indicates that there is no octet limit."

DEFVAL {0}

::= { dot11InterworkingEntry 16 }

dot11NonAPStationAuthMaxTotalOctets OBJECT-TYPE

SYNTAX Unsigned32 (0..4294967295)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized total octet count that a STA may use on all access categories combined. If this octet count is exceeded, the AP should disassociate the non-AP STA. A value of 0 indicates that there is no octet limit."

DEFVAL {0}

::= { dot11InterworkingEntry 17 }

dot11NonAPStationAuthHCCAHEMM OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute, when true, indicates that the non-AP STA is permitted by the SSP to request HCCA or HEMM service via ADDTS frames. If this attribute is false, then HCCA or HEMM service is not permitted by the SSP."

DEFVAL {true}

::= { dot11InterworkingEntry 18 }

dot11NonAPStationAuthMaxHCCAHEMMRate OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

UNITS "kb/s"

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized data rate the non-AP STA may use, either transmitting to an AP or receiving from an AP via HCCA or HEMM. The value '4294967295', which is the default value, means that the SSP is not requesting the AP to limit the data rate used by the non-AP STA. Local configuration of the AP, however, might cause(#229) the rate to be otherwise limited."

DEFVAL {4294967295}

::= { dot11InterworkingEntry 19 }

dot11NonAPStationAuthHCCAHEMMDelay OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

UNITS "microseconds"

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the delay bound for frames queued at an AP to a non-AP STA in the HCCA or HEMM queue. An AP should deliver frames to the non-AP STA within the time period specified in this attribute. When a non-AP STA requests admission control to the HCCA or HEMM queue, the requested delay will be equal to or higher than this value. The value '4294967295', which is the default value, means that the SSP is not requesting the AP limit the delay bound in this queue for transmissions to the non-AP STA."

DEFVAL {4294967295}

::= { dot11InterworkingEntry 20 }

dot11NonAPStationAuthSourceMulticast OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute, when true, indicates that the AP's MAC sublayer shall perform rate limiting to enforce the resource utilization limit in dot11NonAPStationAuthMaxSourceMulticastRate in the dot11InterworkingEntry identified by the source MAC address of the received frame. If this attribute is false, at an AP for which dot11SSPNInterfaceActivated is true, upon receipt of a frame with the Type subfield equal to Data with group DA, then the AP's MAC sublayer shall discard the frame."

DEFVAL {true}

::= { dot11InterworkingEntry 21 }

dot11NonAPStationAuthMaxSourceMulticastRate OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

UNITS "kb/s"

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME after the AP receives the permissions for the non-AP STA from the SSPN Interface.

This attribute indicates the maximum authorized data rate which the non-AP STA may transmit group addressed frames to an AP. If this rate is exceeded, the AP should police the flows. The value '4294967295', which is the default value, means that the SSP is not requesting the AP to limit the multicast data rate used by the non-AP STA."

DEFVAL {4294967295}

::= { dot11InterworkingEntry 22 }

# Comment:

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| --- | --- | --- | --- | --- |
| **CID** | **PP.LL** | **Comment** | **Proposed Change** | **Suggested Resolution** |
| 1245 | 3728.26 | dot11GCRActivated is a control variable, but its MAX-ACCESS is read-only. It should be read-write. The same problem are seen with dot11AdvancedGCRActivated, dot11SCSActivated, dot11QLoadReportActivated, dot11AlternateEDCAActivated, dot11GCRGroupMembershipAnnouncementActivated, dot11APPMActivated, dot11BDTImplemented, etc. | Replace "read-only" with "read-write" w.r.t. the variables cited in the comment. | REVISED:   Adopt changes proposed in doc11-18/xxx. |

# Discussion:

Most of the problem is supposed to be introduced by “copy and paste” error.

# Suggested resolution:

dot11GCRActivated OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME or external management entity.

Changes take effect for the next MLME-START.request primitive

or MLME-JOIN.request primitive.

This attribute, when true, indicates that the station

implementation supports the GCR procedures as defined in 11.22.16.3 (GCR procedures) and that this has been activated."

DEFVAL { false }

::= { dot11AVOptionsEntry 1 }

dot11SCSActivated OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME or external management entity.

Changes take effect for the next MLME-START.request primitive

or MLME-JOIN.request primitive.

This attribute, when true, indicates that the station implementation supports the stream classification service and that this has been activated."

DEFVAL { false }

::= { dot11AVOptionsEntry 5 }

dot11QLoadReportActivated OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME or external management entity.

Changes take effect for the next MLME-START.request primitive.

This attribute, when true, indicates that the AP performs the QLoad report procedures described in 11.26.2 (QLoad Report element)."

DEFVAL { false }

::= { dot11AVOptionsEntry 6 }

dot11AlternateEDCAActivated OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME or external management entity.

Changes take effect for the next MLME-START.request primitive.

This attribute, when true, indicates that the station can additionally use the Alternate EDCA transmit queues."

DEFVAL { false }

::= { dot11AVOptionsEntry 7 }

dot11GCRGroupMembershipAnnouncementActivated OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by the SME or external management entity.

Changes take effect as soon as practical in the implementation.

This attribute, when true, indicates that the STA sends unsolicited Group Membership Response frames when its dot11GroupAddressesTable changes."

DEFVAL { false }

::= { dot11AVOptionsEntry 8 }

dot11APPMActivated 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.

This attribute indicates if the AP may go to doze state."

DEFVAL { false }

::= { dot11S1GStationConfigEntry 50}

dot11BDTImplemented 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.

This attribute, when true, indicates that the station implementation is capable of supporting the bidirectional TXOP Operation. The capability is disabled, otherwise."

DEFVAL { false }

::= { dot11S1GStationConfigEntry 51}

# Reference:

[1] Draft P802.11REVmd\_D1.4.

[2] 11-17/670 “REVmd Working Group Comments for PHY ad-hoc”