IEEE P802.11
Wireless LANs

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| --- |
| LB187 resolutions for MIB comments |
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## Comments

Abstract

This document proposes resolutions for comments on Annex C.

Editing instructions based on P802.11ac/D2.1.

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| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 4132 | Adrian Stephens | 316.05 | C.3 | In general, we show the entire amended object, so that implementers don't have to go and piece it together from various bits. | At 316.5, show the entire definition of Dot11StationConfigEntry, including any changes from .11ae, .11aa and .11ad. | ACCEPTED |
| 4133 | Adrian Stephens | 316.13 | C.3 | Why is vht not vht(8)? | Either change to vht(8), or properly quote your baseline.ditto all occurances of "vht(" | REVISED. Incorporate 11ad edits |
| 4134 | Adrian Stephens | 321.07 | C.3 | "OCTET TRING"his ontains pelling rror. | lease ompile he IB nd ix ny ompilation rrors. | ACCPETED. Edits applied to P802.11REVmb12\_mib+11ae8+11aa9+11ac3.txt and compiled. |
| 4135 | Adrian Stephens | 322.01 | C.3 | "dot11NumberSupportedPowerLevelsImplemented)-th integers"Horribly obscure. Instead of saying 1st to 3rd positions say positions 1 to 3. | Reword thus: "... shall appear in order in positions 1 to min(8, dot11NumberSupportedPowerLevelsImplemented) in this variable" | ACCEPTED |
| 4136 | Adrian Stephens | 322.04 | C.3 | "The N-th integer within dot11TxPowerLevelExtended that identifies thetransmit output power currently being used to transmit data."This description is hopelessly opaque and may be interpreted to mean the variable contains and index, or contains a power level. | Replace with: "Contains an index into the integer array in dot11TxPowerLevelExtended (where the value 1 indicates the first value in dot11TxPowerLevelExtended, and so on) that identifies thetransmit output power currently being used to transmit data." | ACCEPTED |
| 4138 | Adrian Stephens | 323.09 | C.3 | "In 20 MHz, 40 MHz, 80 MHz and 160 MHz channels, denotes the channel centerfrequency.""denotes" is not sufficient by itself to understand the encoding. | Ref to the subclause from which the encoding of this variable can be inferred, or repeat the encoding here.Ditto at 323.14 | REVISED. Add reference “See 22.3.14 (Channelization).” to the description of both variables. |
| 4139 | Adrian Stephens | 324.03 | C.3 | dot11VHTShortGIOptionIn80Activated is described as a capability variable, and is given access read-write. That is inconsistent.Unless this is a read-write variable, how can the PHY determine when to "activate" this feature.Ditto 324.7, 324.11 | Either:1. Add a PHYCONFIG parameter to configure activation of this feature2. Remove the MIB variable on the understanding that if the PHY is capable of receiving short GI, this is not anything that needs activation.3. Change MIB variable to a control variable. | REVISED. Change the description for dot11VHTShortGIOptionIn80Activated and dot11VHTShortGIIn80p80Activated to indicate that they are control variables. |
| 4140 | Adrian Stephens | 323.06 | C.3 | The following are declared to be "control" variables, but are read-only.dot11CurrentChannelBandwidth dot11CurrentChannelCenterFrequencyIndex1 dot11CurrentChannelCenterFrequencyIndex2 | Either change description to "status" or change to read-write. | REVISED. Change description to “status” (3x). |
| 4141 | Adrian Stephens | 325.10 | C.3 | "This attribute, when true, indicates that the entity's capability fortransmitting VHT PPDUs using STBC is enabled"Why do we need an enablement of a transmit option like this?Surely it is trying to control MAC behaviour in selection of TXPARAMETER values, and as such should go in the MAC MIB.But I do question the value of making this controllable from an external entity. | Either:1. Move to the MAC MIB2. Delete this variable. | REVISED. Add the following to the description of all \*Activated variables: “Changes made while associated with an AP or while operating a BSS should take effect only after disassociation or the deactivation of the BSS.” |
| 4142 | Adrian Stephens | 322.16 | C.3 | I question the value "receiver option" activated MIB variables.I suspect if we get 4 people in a room and ask them to agree a description of the purpose of this variable we'll get 5 different answers.For example, with dot11VHTRxSTBCOptionActivated it is unclear who sets and when can be set, or what happens when set.For example if an external management entity were to set this to false, the MAC should monitor this, and re-associate declaring lack of support for Rx STBC. Otherwise it may continue to receive STBC encoded data that it cannot decode. None of this is described in the text. | Remove any and all VHT PHY receiver option activated MIB variables.This includes:dot11VHTShortGIOptionIn80Activated TruthValue,dot11VHTShortGIOptionIn160and80p80Activated TruthValue,dot11VHTLDPCCodingOptionActivated TruthValue,dot11VHTTxSTBCOptionActivated TruthValue,dot11VHTRxSTBCOptionActivated TruthValue, | REVISED. Add the following to the description of all \*Activated variables: “Changes made while associated with an AP or while operating a BSS should take effect only after disassociation or the deactivation of the BSS.” |
| 4143 | Adrian Stephens | 330.02 | C.3 | The repeated list of PHY compliance groups should include any .11ad changes | Check and update to incorporate any .11ad changes. | ACCEPTED |
| 4144 | Adrian Stephens | 316.40 | C.3 | The VHT MIB is missing does not define any groups or module compliances. | Ensure each new MIB variable (excluding table indexes and record types) is cited in a group definition. You may want a group for optional featuers and one for mandatory features.Create a new module compliance statement for VHT and cite mandatory and optional groups as appropriate. | ACCEPTED. Create a new compliance module dot11VHTCompliance object. Details in <this document> |
| 4190 | Alex Ashley | 323.06 | C.3 | dot11CurrentChannelBandwidth is declared read-only, but also declared as a control variable that can be written by a management entity. | Change "read-only" to "read-write" | REVISED. Change description to indicate that this is a status variable. |
| 4191 | Alex Ashley | 323.09 | C.3 | dot11CurrentChannelCenterFrequencyIndex1 is declared read-only, but also declared as a control variable that can be written by a management entity. | Change "read-only" to "read-write" | REVISED. Change description to indicate that this is a status variable. |
| 4192 | Alex Ashley | 323.14 | C.3 | dot11CurrentChannelCenterFrequencyIndex2 is declared read-only, but also declared as a control variable that can be written by a management entity. | Change "read-only" to "read-write" | REVISED. Change description to indicate that this is a status variable. |
| 4759 | Mark RISON | 317.00 | C | Missing hyphen in "a 10 bit subfield" | Add a hyphen | ACCEPTED |
| 4994 | Peter Ecclesine | 321.18 | C.3 | Annex C dot11TxPowerLevelExtended description fails to say whether the 250 microWatt units are conducted or radiated power. | Make it clear whether the 250 microWatt units are conducted or radiated power. | REVISED. Change the description to indicate conducted power, i.e., “…the N-th transmit output power, in units of micro Watts (conducted)” |

Note: ANA assignments for dot11Groups, dot11OperationEntry, dot11Phy, dot11SMT, dot11StationConfigEntry.

Editing Instructions

ASN.1 encoding of the MAC and PHY MIB

* MIB Detail

Change Dot11StationConfigEntry as follows:

Dot11StationConfigEntry ::= SEQUENCE

 {

 dot11StationID MacAddress,

 dot11MediumOccupancyLimit Unsigned32,

 dot11CFPollable TruthValue,

 dot11CFPPeriod Unsigned32,

 dot11CFPMaxDuration Unsigned32,

 dot11AuthenticationResponseTimeOut Unsigned32,

 dot11PrivacyOptionImplemented TruthValue,

 dot11PowerManagementMode INTEGER,

 dot11DesiredSSID OCTET STRING,

 dot11DesiredBSSType INTEGER,

 dot11OperationalRateSet OCTET STRING,

 dot11BeaconPeriod Unsigned32,

 dot11DTIMPeriod Unsigned32,

 dot11AssociationResponseTimeOut Unsigned32,

 dot11DisassociateReason Unsigned32,

 dot11DisassociateStation MacAddress,

 dot11DeauthenticateReason Unsigned32,

 dot11DeauthenticateStation MacAddress,

 dot11AuthenticateFailStatus Unsigned32,

 dot11AuthenticateFailStation MacAddress,

 dot11MultiDomainCapabilityImplemented TruthValue,

 dot11MultiDomainCapabilityActivated TruthValue,

 dot11CountryString OCTET STRING,

 dot11SpectrumManagementImplemented TruthValue,

 dot11SpectrumManagementRequired TruthValue,

 dot11RSNAOptionImplemented TruthValue,

 dot11RSNAPreauthenticationImplemented TruthValue,

 dot11OperatingClassesImplemented TruthValue,

 dot11OperatingClassesRequired TruthValue,

 dot11QosOptionImplemented TruthValue,

 dot11ImmediateBlockAckOptionImplemented TruthValue,

 dot11DelayedBlockAckOptionImplemented TruthValue,

 dot11DirectOptionImplemented TruthValue,

 dot11APSDOptionImplemented TruthValue,

 dot11QAckOptionImplemented TruthValue,

 dot11QBSSLoadImplemented TruthValue,

 dot11QueueRequestOptionImplemented TruthValue,

 dot11TXOPRequestOptionImplemented TruthValue,

 dot11MoreDataAckOptionImplemented TruthValue,

 dot11AssociateInNQBSS TruthValue,

 dot11DLSAllowedInQBSS TruthValue,

 dot11DLSAllowed TruthValue,

 dot11AssociateStation MacAddress,

 dot11AssociateID Unsigned32,

 dot11AssociateFailStation MacAddress,

 dot11AssociateFailStatus Unsigned32,

 dot11ReassociateStation MacAddress,

 dot11ReassociateID Unsigned32,

 dot11ReassociateFailStation MacAddress,

 dot11ReassociateFailStatus Unsigned32,

 dot11RadioMeasurementImplemented TruthValue,

 dot11RadioMeasurementActivated TruthValue,

 dot11RMMeasurementProbeDelay Unsigned32,

 dot11RMMeasurementPilotPeriod Unsigned32,

 dot11RMLinkMeasurementActivated TruthValue,

 dot11RMNeighborReportActivated TruthValue,

 dot11RMParallelMeasurementsActivated TruthValue,

 dot11RMRepeatedMeasurementsActivated TruthValue,

 dot11RMBeaconPassiveMeasurementActivated TruthValue,

 dot11RMBeaconActiveMeasurementActivated TruthValue,

 dot11RMBeaconTableMeasurementActivated TruthValue,

 dot11RMBeaconMeasurementReportingConditionsActivated TruthValue,

 dot11RMFrameMeasurementActivated TruthValue,

 dot11RMChannelLoadMeasurementActivated TruthValue,

 dot11RMNoiseHistogramMeasurementActivated TruthValue,

 dot11RMStatisticsMeasurementActivated TruthValue,

 dot11RMLCIMeasurementActivated TruthValue,

 dot11RMLCIAzimuthActivated TruthValue,

 dot11RMTransmitStreamCategoryMeasurementActivated TruthValue,

 dot11RMTriggeredTransmitStreamCategoryMeasurementActivated

TruthValue,

 dot11RMAPChannelReportActivated TruthValue,

 dot11RMMIBActivated TruthValue,

 dot11RMMaxMeasurementDuration Unsigned32,

 dot11RMNonOperatingChannelMaxMeasurementDuration Unsigned32,

 dot11RMMeasurementPilotTransmissionInformationActivated

 TruthValue,

 dot11RMMeasurementPilotActivated Unsigned32,

 dot11RMNeighborReportTSFOffsetActivated TruthValue,

 dot11RMRCPIMeasurementActivated TruthValue,

 dot11RMRSNIMeasurementActivated TruthValue,

 dot11RMBSSAverageAccessDelayActivated TruthValue,

 dot11RMBSSAvailableAdmissionCapacityActivated TruthValue,

 dot11RMAntennaInformationActivated TruthValue,

 dot11FastBSSTransitionImplemented TruthValue,

 dot11LCIDSEImplemented TruthValue,

 dot11LCIDSERequired TruthValue,

 dot11DSERequired TruthValue,

 dot11ExtendedChannelSwitchActivated TruthValue,

 dot11RSNAProtectedManagementFramesActivated

 TruthValue,

 dot11RSNAUnprotectedManagementFramesAllowed TruthValue,

 dot11AssociationSAQueryMaximumTimeout Unsigned32,

 dot11AssociationSAQueryRetryTimeout Unsigned32,

 dot11HighThroughputOptionImplemented TruthValue,

 dot11RSNAPBACRequired TruthValue,

 dot11PSMPOptionImplemented TruthValue,

 dot11TunneledDirectLinkSetupImplemented TruthValue,

 dot11TDLSPeerUAPSDBufferSTAActivated TruthValue,

 dot11TDLSPeerPSMActivated TruthValue,

 dot11TDLSPeerUAPSDIndicationWindow Unsigned32,

 dot11TDLSChannelSwitchingActivated TruthValue,

 dot11TDLSPeerSTAMissingAckRetryLimit Unsigned32,

 dot11TDLSResponseTimeout Unsigned32,

 dot11OCBActivated TruthValue,

 dot11TDLSProbeDelay Unsigned32,

 dot11TDLSDiscoveryRequestWindow Unsigned32,

 dot11TDLSACDeterminationInterval Unsigned32,

 dot11WirelessManagementImplemented TruthValue,

 dot11BssMaxIdlePeriod Unsigned32,

 dot11BssMaxIdlePeriodOptions OCTET STRING,

 dot11TIMBroadcastInterval Unsigned32,

 dot11TIMBroadcastOffset Integer32,

 dot11TIMBroadcastHighRateTIMRate Unsigned32,

 dot11TIMBroadcastLowRateTIMRate Unsigned32,

 dot11StatsMinTriggerTimeout Unsigned32,

 dot11RMCivicMeasurementActivated TruthValue,

 dot11RMIdentifierMeasurementActivated TruthValue,

 dot11TimeAdvertisementDTIMInterval Unsigned32,

 dot11TimeAdvertisementTimeError OCTET STRING,

 dot11TimeAdvertisementTimeValue OCTET STRING,

 dot11RM3rdPartyMeasurementActivated TruthValue,

 dot11InterworkingServiceImplemented TruthValue,

 dot11InterworkingServiceActivated TruthValue,

 dot11QosMapImplemented TruthValue,

 dot11QosMapActivated TruthValue,

 dot11EBRImplemented TruthValue,

 dot11EBRActivated TruthValue,

 dot11ESNetwork TruthValue,

 dot11SSPNInterfaceImplemented TruthValue,

 dot11SSPNInterfaceActivated TruthValue,

 dot11HESSID MacAddress,

 dot11EASImplemented TruthValue,

 dot11EASActivated TruthValue,

 dot11MSGCFImplemented TruthValue,

 dot11MSGCFActivated TruthValue,

 dot11MeshActivated TruthValue,

 dot11RejectUnadmittedTraffic TruthValue,

 dot11BSSBroadcastNullCount Unsigned32,

 dot11QMFActivated TruthValue ,

 dot11QMFReconfigurationActivated TruthValue ,

 dot11QMFPolicyChangeTimeout Unsigned32 ,

 dot11RobustAVStreamingImplemented TruthValue,

 dot11MultibandImplemented TruthValue,

 dot11VHTOptionImplemented TruthValue,

 dot11OperatingModeNotificationImplemented TruthValue(#5096)

 }

Insert the following after the dot11MeshActivated OPJECT-TYPE element in the Dot11StationConfig TABLE:

dot11VHTOptionImplemented 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 indicates whether the entity is VHT Capable."

 ::= { dot11StationConfigEntry <ANA>}

dot11OperatingModeNotificationImplemented 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 indicates whether the entity is Operatingon Mode Notification Capable."

 ::= { dot11StationConfigEntry <ANA>}

(#5096)

Change the dot11BeaconRprtPhyType as follows:

dot11BeaconRprtPhyType OBJECT-TYPE

 SYNTAX INTEGER {

 fhss(1),

 dsss(2),

 irbaseband(3),

 ofdm(4),

 hrdsss(5),

 erp(6),

 ht(7)

 dmg(8),

 vht(9) }

 UNITS "dot11PHYType"

 MAX-ACCESS read-create

 STATUS current

 DESCRIPTION

 "This is a status variable.

 It is written by the SME when a measurement report is completed.

 This attribute indicates the PHY used for frame reception in this row of the frame report."

 ::= { dot11BeaconReportEntry 9 }

Change the dot11FrameRprtPhyType as follows:

dot11FrameRprtPhyType OBJECT-TYPE

 SYNTAX INTEGER {

 fhss(1),

 dsss(2),

 irbaseband(3),

 ofdm(4),

 hrdsss(5),

 erp(6),

 ht(7),

 dmg(8),

 **vht(9) }**

 UNITS "dot11PHYType"

 MAX-ACCESS read-create

 STATUS current

 DESCRIPTION

 "This is a status variable.

 It is written by the SME when a measurement report is completed.

 This attribute indicates the PHY used for frame reception in this row of the frame report."

 ::= { dot11FrameReportEntry 10 }

Change the dot11RMNeighborReportPhyType as follows:

dot11RMNeighborReportPhyType OBJECT-TYPE

 SYNTAX INTEGER {

 fhss(1),

 dsss(2),

 irbaseband(3),

 ofdm(4),

 hrdsss(5),

 erp(6),

 ht(7)

 dmg(8),

 vht(9) }

 UNITS "dot11PHYType"

 MAX-ACCESS read-create

 STATUS current

 DESCRIPTION

 "This is a status variable.

 It is written by the SME when a measurement report is completed.

 This attribute indicates the PHY Type of the neighbor AP identified by this BSSID."

 ::= { dot11RMNeighborReportEntry 15 }

Change the dot11RMNeighborReportHTRxHighestSupportedDataRate as follows:

dot11RMNeighborReportHTRxHighestSupportedDataRate OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-create

 STATUS current

 DESCRIPTION

 "This is a status variable.

 It is written by the SME when a measurement report is completed.

 The HT Highest Supported Data Rate is a 10-bit subfield that defines the highest HT PPDU data rate that the STA is able to receive, in units of 1 Mb/s, where 1 represents 1 Mb/s, and incrementing by 1 Mb/s steps to the value 1023, which represents 1023 Mb/s. See 8.4.2.58.4 (Supported MCS Set field)"

 ::= { dot11RMNeighborReportEntry 40 }

Insert the following after the dot11APC TABLE:

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

-- \* dot11VHTStationConfig TABLE

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

dot11VHTStationConfigTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot11VHTStationConfigEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "Station Configuration attributes. In tabular form to allow for multiple instances on an agent."

 ::= { dot11smt <ANA>}

dot11VHTStationConfigEntry OBJECT-TYPE

 SYNTAX Dot11VHTStationConfigEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry (conceptual row) in the dot11HTStationConfig Table.

 ifIndex - Each IEEE 802.11 interface is represented by an ifEntry. Interface tables in this MIB module are indexed by ifIndex."

 INDEX { ifIndex }

 ::= { dot11VHTStationConfigTable 1 }

Dot11VHTStationConfigEntry ::=

 SEQUENCE {

 dot11MaxMPDULength INTEGER,

 dot11VHTMaxRxAMPDUFactor Unsigned32,

 dot11VHTControlFieldSupported TruthValue,

 dot11VHTTXOPPowerSaveOptionImplemented TruthValue,

 dot11VHTRxMCSMap OCTET STRING,

 dot11VHTRxHighestDataRateSupported Unsigned32,

 dot11VHTTxMCSMap OCTET STRING,

 dot11VHTTxHighestDataRateSupported Unsigned32,

 dot11VHTPSProbeDelay Unsigned32,

 dot11VHTOBSSScanCount Unsigned32

 }

dot11MaxMPDULength OBJECT-TYPE

 SYNTAX INTEGER { short(3895), medium(7991), long(11454) }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 This attribute indicates the supported maximum MPDU size."

 DEFVAL { short }

 ::= { dot11VHTStationConfigEntry 1 }

dot11VHTMaxRxAMPDUFactor OBJECT-TYPE

 SYNTAX Unsigned32 (0..7)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 This attribute indicates the maximum length of A-MPDU that the STA can receive. The Maximum Rx A-MPDU defined by this field is equal to 2^(13+dot11VHTMaxRxAMPDUFactor) -1 octets."

 DEFVAL { 0 }

 ::= { dot11VHTStationConfigEntry 2 }

dot11VHTControlFieldSupported 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 station implementation is capable of receiving the VHT variant HT Control field."

 DEFVAL { false }

 ::= { dot11VHTStationConfigEntry 3 }

dot11VHTTXOPPowerSaveOptionImplemented 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 station implementation is capable of TXOP Power Save operation."

 DEFVAL { false }

 ::= { dot11VHTStationConfigEntry 4 }

dot11VHTRxMCSMap OBJECT-TYPE

 SYNTAX OCTET STRING (SIZE(8))

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 Each octet represents the highest MCS supported (for Rx) on the number of streams represented by the octet position (first octet represents 1 stream, second octet represents 2 streams, etc.). A value 0 indicates that MCSs 0-7 are supported. A value 1 indicates that MCSs 0-8 are supported. A value 2 indicates that MCSs 0-9 are supported. A value 3 indicates no support for that number of spatial streams."

 ::= { dot11VHTStationConfigEntry 5 }

dot11VHTRxHighestDataRateSupported OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 Represents the highest data rate in Mb/s that the STA is capable of receiving."

 ::= { dot11VHTStationConfigEntry 6 }

dot11VHTTxMCSMap OBJECT-TYPE

 SYNTAX OCTET STRING (SIZE(8))

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 Each octet represents the highest MCS supported (for Tx) on the number of streams represented by the octet position (first octet represents 1 stream, second octet represents 2 streams, etc.). A value 0 indicates that MCSs 0-7 are supported. A value 1 indicates that MCSs 0-8 are supported. A value 2 indicates that MCSs 0-9 are supported. A value 3 indicates no support for that number of spatial streams."

 ::= { dot11VHTStationConfigEntry 7 }

dot11VHTTxHighestDataRateSupported OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 Represents the highest data rate in Mb/s that the STA is capable of transmitting."

 DEFVAL { 0 }

 ::= { dot11VHTStationConfigEntry 8 }

dot11VHTPSProbeDelay OBJECT-TYPE

 SYNTAX Unsigned32 (0..65535)

 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.

 This attribute indicates the minimum amount of time in units of microseconds the

 STA waits before accessing the medium after transitioning from the Doze state to

 Awake state while operating in TXOP power save mode."

 DEFVAL { 1000 }

 ::= { dot11VHTStationConfigEntry 9 }

dot11VHTOBSSScanCount OBJECT-TYPE

 SYNTAX Unsigned32 (3..100)

 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.

 This attribute indicates the minimum number of scan operations perfomed on

 a channel to detect another OBSS."

 DEFVAL { 3 }

 ::= { dot11VHTStationConfigEntry 10 }

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

-- \* End of dot11VHTStationConfigTable TABLE

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

Change the dot11FragmentationThreshold object as follows:

dot11FragmentationThreshold OBJECT-TYPE

 SYNTAX Unsigned32 (256..~~8000~~ 11500)

 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 specifies the current maximum size, in octets, of the MPDU that may be delivered to the security encapsulation. This maximum size does not apply when an MSDU is transmitted using an HT-immediate or HT-delayed Block Ack agreement, or when an MSDU or MMPDU is carried in an A-MPDU. Fields added to the frame by security encapsulation are not counted against the limit specified by this attribute. Except as described above, an MSDU or MMPDU is fragmented when the resulting frame has an individual address in the Address1 field, and the length of the frame is larger than this threshold, excluding security encapsulation fields. The default value for this attribute is the lesser of ~~8000~~ 11500 or the aMPDUMaxLength or the aPSDUMaxLength of the attached PHY and the value never exceeds the lesser of ~~8000~~ 11500 or the aMPDUMaxLength or the aPSDUMaxLength of the attached PHY."

 ::= { dot11OperationEntry 5 }

Change the dot11PHYType object 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) }

 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"

 ::= { dot11PhyOperationEntry 1 }

Change the Dot11PhyTxPowerEntry object as follows:

Dot11PhyTxPowerEntry ::=

 SEQUENCE {

 dot11NumberSupportedPowerLevelsImplemented Unsigned32,

 dot11TxPowerLevel1 Unsigned32,

 dot11TxPowerLevel2 Unsigned32,

 dot11TxPowerLevel3 Unsigned32,

 dot11TxPowerLevel4 Unsigned32,

 dot11TxPowerLevel5 Unsigned32,

 dot11TxPowerLevel6 Unsigned32,

 dot11TxPowerLevel7 Unsigned32,

 dot11TxPowerLevel8 Unsigned32,

 dot11CurrentTxPowerLevel Unsigned32,

 dot11TxPowerLevelExtended OCTET STRING,

 dot11CurrentTxPowerLevelExtended Unsigned32 }

Change the dot11NumberSupportedPowerLevelsImplemented object as follows:

dot11NumberSupportedPowerLevelsImplemented OBJECT-TYPE

 SYNTAX Unsigned32 (1..8)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a status variable.

 It is written by the PHY.

 ~~The TxPowerLevel N currently being used to transmit data. Some PHYs also use this value to determine the receiver sensitivity requirements for CCA."~~

 Set to min(N,8) where N is an index into dot11TxPowerLevel<N> or dot11TxPowerLevelExtended and identifies the transmit power level currently being used to transmit data. Some PHYs also use this value to determine the receiver sensitivity requirements for CCA."

 ::= { dot11PhyTxPowerEntry 1 }

Insert following the dot11NumberSupportedPowerLevelsImplemented object:

dot11TxPowerLevelExtended OBJECT-TYPE

 SYNTAX OCTET STRING (SIZE(2..256))

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 It must have an even number of octets. It is organized as a variable length list of octet pairs, where each octet pair defines a big-endian 16-bit integer. The N-th integer represents the N-th transmit output power, in units of 250 microWatts. The values dot11TxPowerLevel1 to dot11TxPowerLevel<min(8, dot11NumberSupportedPowerLevelsImplemented)> inclusive, when converted from units of milliWatts to 250 microWatts, shall appear in order in positions 1 to min(8, dot11NumberSupportedPowerLevelsImplemented) in this variable."

 ::= { dot11PhyTxPowerEntry 11 }

dot11CurrentTxPowerLevelExtended OBJECT-TYPE

 SYNTAX Unsigned32 (1..128)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a status variable.

 It is written by the PHY.

 Contains an index into the integer array in dot11TxPowerLevelExtended (where the value 1 indicates the first value in dot11TxPowerLevelExtended, and so on) that identifies the transmit output power currently being used to transmit data. "

 ::= { dot11PhyTxPowerEntry 12 }

Insert the dot11 Phy VHT TABLE and dot11 VHT Transmit Beamforming table below after the dot11 Phy DMG TABLE:

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

-- \* dot11 Phy VHT TABLE

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

dot11PhyVHTTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot11PhyVHTEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "Entry of attributes for dot11PhyVHTTable. Implemented as a table indexed on ifIndex to allow for multiple instances on an Agent."

 ::= { dot11phy <ANA>}

dot11PhyVHTEntry OBJECT-TYPE

 SYNTAX Dot11PhyVHTEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the dot11PhyHTEntry Table. ifIndex - Each IEEE 802.11 interface is represented by an ifEntry. Interface tables in this MIB module are indexed by ifIndex."

 INDEX {ifIndex}

 ::= { dot11PhyVHTTable 1 }

Dot11PhyVHTEntry ::=

 SEQUENCE {

 dot11VHTChannelWidthOptionImplemented INTEGER,

 dot11CurrentChannelBandwidth INTEGER,

 dot11CurrentChannelCenterFrequencyIndex1 Unsigned32,

 dot11CurrentChannelCenterFrequencyIndex2 Unsigned32,

 dot11VHTShortGIOptionIn80Implemented TruthValue,

 dot11VHTShortGIOptionIn80Activated TruthValue,

 dot11VHTShortGIOptionIn160and80p80Implemented TruthValue,

 dot11VHTShortGIOptionIn160and80p80Activated TruthValue,

 dot11VHTLDPCCodingOptionImplemented TruthValue,

 dot11VHTLDPCCodingOptionActivated TruthValue,

 dot11VHTTxSTBCOptionImplemented TruthValue,

 dot11VHTTxSTBCOptionActivated TruthValue,

 dot11VHTRxSTBCOptionImplemented TruthValue,

 dot11VHTRxSTBCOptionActivated TruthValue,

 dot11VHTMUMaxUsersImplemented Unsigned32,

 dot11VHTMUMaxNSTSPerUserImplemented Unsigned32,

 dot11VHTMUMaxNSTSTotalImplemented Unsigned32

 }

dot11VHTChannelWidthOptionImplemented OBJECT-TYPE

 SYNTAX INTEGER { contiguous80(0), contiguous160(1), noncontiguous80plus80(2) }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 This attribute indicates the channel widths supported: 20/40/80 MHz, 20/40/80/160 MHz or 20/40/80/160/80+80 MHz."

 DEFVAL { contiguous80 }

 ::= { dot11PhyVHTEntry 1 }

dot11CurrentChannelBandwidth OBJECT-TYPE

 SYNTAX INTEGER { cbw20(0), cbw40(1), cbw80(2), cbw160(3), cbw80p80(4) }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a status variable.

 This attribute indicates the operating channel width."

 DEFVAL { cbw20 }

 ::= { dot11PhyVHTEntry 2 }

dot11CurrentChannelCenterFrequencyIndex1 OBJECT-TYPE

 SYNTAX Unsigned32 (0..200)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a status variable.

 In 20 MHz, 40 MHz, 80 MHz and 160 MHz channels, denotes the channel center frequency. In 80+80 MHz channels, denotes the center frequency of frequency segment 1. See 22.3.14 (Channelization)"

 DEFVAL { 0 }

 ::= { dot11PhyVHTEntry 3 }

dot11CurrentChannelCenterFrequencyIndex2 OBJECT-TYPE

 SYNTAX Unsigned32 (0..200)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a status variable.

 In 80+80 MHz channels, denotes the center frequency of frequency segment 2.

 Undefined for 20 MHz, 40 MHz, 80 MHz and 160 MHz channels. See 22.3.14 (Channelization)"

 DEFVAL { 0 }

 ::= { dot11PhyVHTEntry 4 }

dot11VHTShortGIOptionIn80Implemented 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 device is capable of receiving 80 MHz short guard interval packets."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 5 }

dot11VHTShortGIOptionIn80Activated 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. Changes made while associated with an AP or while operating a BSS should take effect only after disassociation or the deactivation of the BSS, respectively.

 This attribute, when true, indicates that the reception of 80 MHz short guard interval packets is enabled."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 6 }

dot11VHTShortGIOptionIn160and80p80Implemented 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 device is capable of receiving 160 MHz and 80+80 MHz short guard interval packets."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 7 }

dot11VHTShortGIOptionIn160and80p80Activated 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. Changes made while associated with an AP or while operating a BSS should take effect only after disassociation or the deactivation of the BSS, respectively.

 This attribute, when true, indicates that the reception of 160 MHz and 80+80 MHz short guard interval packets is enabled."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 8 }

dot11VHTLDPCCodingOptionImplemented 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 LDPC coding option for VHT packets is implemented."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 9 }

dot11VHTLDPCCodingOptionActivated 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. Changes made while associated with an AP or while operating a BSS should take effect only after disassociation or the deactivation of the BSS, respectively.

 This attribute, when true, indicates that the LDPC coding option for VHT packets is enabled."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 10 }

dot11VHTTxSTBCOptionImplemented 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 device is capable of transmitting VHT PPDUs using STBC."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 11 }

dot11VHTTxSTBCOptionActivated 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. Changes made while associated with an AP or while operating a BSS should take effect only after disassociation or the deactivation of the BSS, respectively.

 This attribute, when true, indicates that the entity's capability for transmitting VHT PPDUs using STBC is enabled."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 12 }

dot11VHTRxSTBCOptionImplemented 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 device is capable of receiving VHT PPDUs using STBC."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 13 }

dot11VHTRxSTBCOptionActivated 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. Changes made while associated with an AP or while operating a BSS should take effect only after disassociation or the deactivation of the BSS, respectively.

 This attribute, when true, indicates that the entity's capability for receiving VHT PPDUs using STBC is enabled."

 DEFVAL { false }

 ::= { dot11PhyVHTEntry 14 }

dot11VHTMUMaxUsersImplemented OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 This attribute indicates the maximum number of users to which this device is capable of transmitting within a MU PPDU."

 DEFVAL { 1 }

 ::= { dot11PhyVHTEntry 15 }

dot11VHTMUMaxNSTSPerUserImplemented OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 This attribute indicates the maximum number of space-time streams per user that this device is capable of transmitting within a MU PPDU."

 DEFVAL { 1 }

 ::= { dot11PhyVHTEntry 16 }

dot11VHTMUMaxNSTSTotalImplemented OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 This attribute indicates the maximum number of space-time streams for all users that this device is capable of transmitting within a MU PPDU."

 DEFVAL { 1 }

 ::= { dot11PhyVHTEntry 17 }

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

-- \* End of dot11PhyVHT TABLE

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

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

-- \* dot11 VHT Transmit Beamforming Config TABLE

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

dot11VHTTransmitBeamformingConfigTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot11VHTTransmitBeamformingConfigEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "Entry of attributes for dot11VHTTransmitBeamformingConfigTable. Implemented as a table indexed on ifIndex to allow for multiple instances on an Agent."

 ::= { dot11phy 21 }

dot11VHTTransmitBeamformingConfigEntry OBJECT-TYPE

 SYNTAX Dot11VHTTransmitBeamformingConfigEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the dot11VHTTransmitBeamformingConfig Table.

 ifIndex - Each IEEE 802.11 interface is represented by an ifEntry. Interface tables in this MIB module are indexed by ifIndex."

 INDEX {ifIndex}

 ::= { dot11VHTTransmitBeamformingConfigTable 1 }

Dot11VHTTransmitBeamformingConfigEntry ::=

 SEQUENCE {

 dot11VHTSUBeamformeeOptionImplemented TruthValue,

 dot11VHTSUBeamformerOptionImplemented TruthValue,

 dot11VHTMUBeamformeeOptionImplemented TruthValue,

 dot11VHTMUBeamformerOptionImplemented TruthValue,

 dot11VHTNumberSoundingDimensions Unsigned32,

 dot11VHTBeamformeeNTxSupport Unsigned32

 }

dot11VHTSUBeamformeeOptionImplemented 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 supports the SU Beamformee role."

 DEFVAL { false }

 ::= { dot11VHTTransmitBeamformingConfigEntry 1 }

dot11VHTSUBeamformerOptionImplemented 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 supports the SU Beamformer role."

 DEFVAL { false }

 ::= { dot11VHTTransmitBeamformingConfigEntry 2 }

dot11VHTMUBeamformeeOptionImplemented 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 supports the MU Beamformee role."

 DEFVAL { false }

 ::= { dot11VHTTransmitBeamformingConfigEntry 3 }

dot11VHTMUBeamformerOptionImplemented 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 supports the MU Beamformer role."

 DEFVAL { false }

 ::= { dot11VHTTransmitBeamformingConfigEntry 4 }

dot11VHTNumberSoundingDimensions OBJECT-TYPE

 SYNTAX Unsigned32 (1..8)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 This attribute indicates the number of antennas used by the beamformer when sending beamformed tansmissions."

 ::= { dot11VHTTransmitBeamformingConfigEntry 5 }

dot11VHTBeamformeeNTxSupport OBJECT-TYPE

 SYNTAX Unsigned32 (1..8)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is a capability variable.

 Its value is determined by device capabilities.

 This attribute indicates the number of beamformer transmit antennas the beamformee supports."

 ::= { dot11VHTTransmitBeamformingConfigEntry 6 }

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

-- \* End of dot11 VHT Transmit Beamforming Config TABLE

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

Insert the following compliance objects after the dot11TDLSComplianceGroup object:

dot11VHTTransmitBeamformingGroup OBJECT-GROUP

 OBJECTS {

 dot11VHTSUBeamformeeOptionImplemented,

 dot11VHTSUBeamformerOptionImplemented,

 dot11VHTMUBeamformeeOptionImplemented,

 dot11VHTMUBeamformerOptionImplemented,

 dot11VHTNumberSoundingDimensions,

 dot11VHTBeamformeeNTxSupport }

 STATUS current

 DESCRIPTION

 "Attributes that configure VHT transmit beamforming for IEEE 802.11."

 ::= { dot11Groups 76 }

dot11PhyVHTComplianceGroup OBJECT-GROUP

 OBJECTS {

 dot11VHTChannelWidthOptionImplemented,

 dot11CurrentChannelBandwidth,

 dot11CurrentChannelCenterFrequencyIndex1,

 dot11CurrentChannelCenterFrequencyIndex2,

 dot11VHTShortGIOptionIn80Implemented,

 dot11VHTShortGIOptionIn80Activated,

 dot11VHTShortGIOptionIn160and80p80Implemented,

 dot11VHTShortGIOptionIn160and80p80Activated,

 dot11VHTLDPCCodingOptionImplemented,

 dot11VHTLDPCCodingOptionActivated,

 dot11VHTTxSTBCOptionImplemented,

 dot11VHTTxSTBCOptionActivated,

 dot11VHTRxSTBCOptionImplemented,

 dot11VHTRxSTBCOptionActivated,

 dot11VHTMUMaxUsersImplemented,

 dot11VHTMUMaxNSTSPerUserImplemented,

 dot11VHTMUMaxNSTSTotalImplemented }

 STATUS current

 DESCRIPTION

 "Attributes that configure the VHT PHY."

 ::= { dot11Groups 77 }

dot11VHTMACAdditions OBJECT-GROUP

 OBJECTS {

 dot11MaxMPDULength,

 dot11VHTMaxRxAMPDUFactor,

 dot11VHTControlFieldSupported,

 dot11VHTTXOPPowerSaveOptionImplemented,

 dot11VHTRxMCSMap,

 dot11VHTRxHighestDataRateSupported,

 dot11VHTTxMCSMap,

 dot11VHTTxHighestDataRateSupported }

 STATUS current

 DESCRIPTION

 "Attributes that configure the VHT MAC."

 ::= { dot11Groups 78 }

dot11PhyTxPowerComplianceGroup2 OBJECT-GROUP

 OBJECTS {

 dot11TxPowerLevelExtended,

 dot11CurrentTxPowerLevelExtended }

 STATUS current

 DESCRIPTION

 "Additional attributes for Control and Management of transmit power."

 ::= { dot11Groups 79 }

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 {

 dot11SMTbase12,

 dot11MACbase3,

 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"

 GROUP dot11PhyIRComplianceGroup

 DESCRIPTION

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

 This group is mutually exclusive to the following groups:

 dot11PhyFHSSComplianceGroup2

 dot11PhyDSSSComplianceGroup

 dot11PhyOFDMComplianceGroup3

 dot11PhyHRDSSSComplianceGroup

 dot11PhyERPComplianceGroup

 dot11PhyHTComplianceGroup

 dot11DMGComplianceGroup

 dot11PhyVHTComplianceGroup"

 GROUP dot11PhyFHSSComplianceGroup2

 DESCRIPTION

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

 This group is mutually exclusive to the following groups:

 dot11PhyIRComplianceGroup

 dot11PhyDSSSComplianceGroup

 dot11PhyOFDMComplianceGroup3

 dot11PhyHRDSSSComplianceGroup

 dot11PhyERPComplianceGroup

 dot11PhyHTComplianceGroup

 dot11DMGComplianceGroup

 dot11PhyVHTComplianceGroup"

 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"

 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"

 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"

 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"

 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"

Add the following after GROUP dot11PhyTxPowerComplianceGroup:

 GROUP dot11PhyTxPowerComplianceGroup2

 DESCRIPTION

 "The dot11PhyTxPowerComplianceGroup2 group is optional, but dependent on dot11PhyTxPowerConplianceGroup."

Add the following after GROUP dot11TransmitBeamformingGroup:

 GROUP dot11VHTTransmitBeamformingGroup

 DESCRIPTION

 "The dot11VHTTransmitBeamformingGroup group is optional."

 GROUP dot11VHTMACAdditions

 DESCRIPTION

 "The dot11VHTMACAdditions group is optional."

Change OPTIONAL-GROUPS as follows:

-- OPTIONAL-GROUPS {

 -- dot11SMTprivacy

 -- dot11MACStatistics,

 -- dot11PhyAntennaComplianceGroup,

 -- dot11PhyTxPowerComplianceGroup,

 -- dot11PhyRegDomainsSupportGroup,

 -- dot11PhyAntennasListGroup,

 -- dot11PhyRateGroup,

 -- dot11MultiDomainCapabilityGroup,

 -- dot11PhyFHSSComplianceGroup2,

 -- dot11RSNAadditions,

 -- dot11OperatingClassesGroup,

 -- dot11Qosadditions,

 -- dot11RMCompliance,

 -- dot11FTComplianceGroup

 -- dot11PhyAntennaComplianceGroup2,

 -- dot11HTMACadditions,

 -- dot11PhyMCSGroup,

 -- dot11TransmitBeamformingGroup,

 -- dot11VHTTransmitBeamformingGroup,

 -- dot11PhyVHTComplianceGroup,

 -- dot11VHTMACAdditions,

 -- dot11WNMCompliance}

Insert the following after dot11AVSAPCCompliance:

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

-- \* Compliance Statements - VHT

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

dot11VHTCompliance MODULE-COMPLIANCE

 STATUS current

 DESCRIPTION

 "This object class provides the objects from the IEEE 802.11

 MIB used to operate at very high throughput."

 MODULE -- this module

 MANDATORY-GROUPS { dot11PhyVHTComplianceGroup, dot11PhyTxPowerComplianceGroup2, dot11VHTTransmitBeamformingGroup, dot11VHTMACAdditions }

-- OPTIONAL-GROUPS { }

 ::= { dot11Compliances 14 }