IEEE8023-ETHER-WIS-MIB DEFINITIONS ::= BEGIN

 IMPORTS

 MODULE-IDENTITY, OBJECT-TYPE,

 Gauge32, org

 FROM SNMPv2-SMI

 ifIndex

 FROM IF-MIB

 MODULE-COMPLIANCE, OBJECT-GROUP

 FROM SNMPv2-CONF

 sonetMediumStuff2, sonetSectionStuff2,

 sonetLineStuff2, sonetFarEndLineStuff2,

 sonetPathStuff2, sonetFarEndPathStuff2,

 sonetMediumType, sonetMediumLineCoding,

 sonetMediumLineType, sonetMediumCircuitIdentifier,

 sonetMediumLoopbackConfig, sonetSESthresholdSet,

 sonetPathCurrentWidth

 FROM SONET-MIB;

 ieee8023etherWisMIB MODULE-IDENTITY

 LAST-UPDATED "202307310000Z" – July 31, 2023

 ORGANIZATION

 "IEEE 802.3 Working Group"

 CONTACT-INFO

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DESCRIPTION

 "The objects in this MIB module are used in conjunction

 with objects in the SONET-MIB module and the MAU-MIB module to manage

 the Ethernet WAN Interface Sublayer (WIS) defined in

 IEEE Std 802.3.

 Of particular interest are IEEE Std 802.3, Clause 50, 'WAN Interface

 Sublayer (WIS), type 10GBASE-W', Clause 30, '10 Mb/s,

 100 Mb/s, 1000 Mb/s, and 10 Gb/s Management, and Link

 Aggregation Management', and Clause 45, 'Management

 Data Input/Output (MDIO) Interface'."

 REVISION "202307310000Z" – July 31, 2023

 DESCRIPTION

 "Revision, based on an earlier version in IEEE Std 802.3.1-2013

 addressing changes from IEEE Std 802.3 revisions 2012, 2015, 2018,

 and 2022."

 REVISION "201304110000Z" -- April 11, 2013

 DESCRIPTION

 "Revision, based on an earlier version in IEEE Std 802.3.1-2011."

 REVISION "201102020000Z" -- February 2, 2011

 DESCRIPTION

 "Initial version, based on an earlier version published

 as RFC 3637."

 ::= { org ieee(111) standards-association-numbers-series-standards(2)

 lan-man-stds(802) ieee802dot3(3) ieee802dot3dot1mibs(1) 12 }

 -- The main sections of the module

 etherWisObjects OBJECT IDENTIFIER ::= { ieee8023etherWisMIB 1 }

 etherWisObjectsPath OBJECT IDENTIFIER ::= { ieee8023etherWisMIB 2 }

 etherWisConformance OBJECT IDENTIFIER ::= { ieee8023etherWisMIB 3 }

 -- groups in the Ethernet WIS MIB module

 etherWisDevice OBJECT IDENTIFIER ::= { etherWisObjects 1 }

 etherWisSection OBJECT IDENTIFIER ::= { etherWisObjects 2 }

 etherWisPath OBJECT IDENTIFIER ::= { etherWisObjectsPath 1 }

 etherWisFarEndPath OBJECT IDENTIFIER ::= { etherWisObjectsPath 2 }

 -- The Device group

 -- These objects provide WIS extensions to

 -- the SONET-MIB Medium Group.

 etherWisDeviceTable OBJECT-TYPE

 SYNTAX SEQUENCE OF EtherWisDeviceEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "The table for Ethernet WIS devices"

 ::= { etherWisDevice 1 }

 etherWisDeviceEntry OBJECT-TYPE

 SYNTAX EtherWisDeviceEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the Ethernet WIS device table. For each

 instance of this object there shall be a corresponding

 instance of sonetMediumEntry."

 INDEX { ifIndex }

 ::= { etherWisDeviceTable 1 }

 EtherWisDeviceEntry ::=

 SEQUENCE {

 etherWisDeviceTxTestPatternMode INTEGER,

 etherWisDeviceRxTestPatternMode INTEGER,

 etherWisDeviceRxTestPatternErrors Gauge32

 }

 etherWisDeviceTxTestPatternMode OBJECT-TYPE

 SYNTAX INTEGER {

 none(1),

 squareWave(2),

 prbs31(3),

 mixedFrequency(4)

 }

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This variable controls the transmit test pattern mode.

 The value none(1) puts the the WIS transmit path into

 the normal operating mode. The value squareWave(2) puts

 the WIS transmit path into the square wave test pattern

 mode described in IEEE Std 802.3, 50.3.8.1.

 The value prbs31(3) puts the WIS transmit path into the

 PRBS31 test pattern mode described in IEEE Std 802.3

 50.3.8.2. The value mixedFrequency(4) puts the

 WIS transmit path into the mixed frequency test pattern

 mode described in IEEE Std 802.3, 50.3.8.3.

 Any attempt to set this object to a value other than

 none(1) when the corresponding instance of ifAdminStatus

 has the value up(1) shall be rejected with the error

 inconsistentValue, and any attempt to set the corresponding

 instance of ifAdminStatus to the value up(1) when an

 instance of this object has a value other than none(1)

 shall be rejected with the error inconsistentValue."

 REFERENCE

 "IEEE Std 802.3, 50.3.8, 45.2.2.6, 45.2.2.7.2"

 ::= { etherWisDeviceEntry 1 }

 etherWisDeviceRxTestPatternMode OBJECT-TYPE

 SYNTAX INTEGER {

 none(1),

 prbs31(3),

 mixedFrequency(4)

 }

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This variable controls the receive test pattern mode.

 The value none(1) puts the the WIS receive path into the

 normal operating mode. The value prbs31(3) puts the WIS

 receive path into the PRBS31 test pattern mode described

 in IEEE Std 802.3, 50.3.8.2. The value

 mixedFrequency(4) puts the WIS receive path into the mixed

 frequency test pattern mode described in IEEE Std 802.3,

 50.3.8.3. Any attempt to set this object to a

 value other than none(1) when the corresponding instance

 of ifAdminStatus has the value up(1) shall be rejected with

 the error inconsistentValue, and any attempt to set the

 corresponding instance of ifAdminStatus to the value up(1)

 when an instance of this object has a value other than

 none(1) shall be rejected with the error inconsistentValue."

 REFERENCE

 "IEEE Std 802.3, 50.3.8, 45.2.2.6, and 45.2.2.7.2"

 ::= { etherWisDeviceEntry 2 }

 etherWisDeviceRxTestPatternErrors OBJECT-TYPE

 SYNTAX Gauge32 ( 0..65535 )

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This object counts the number of errors detected when the

 WIS receive path is operating in the PRBS31 test pattern

 mode. It is reset to zero when the WIS receive path

 initially enters that mode, and it increments each time

 the PRBS pattern checker detects an error as described in

 IEEE Std 802.3, 50.3.8.2 unless its value is

 65535, in which case it remains unchanged. This object is

 writeable so that it may be reset upon explicit request

 of a command generator application while the WIS receive

 path continues to operate in PRBS31 test pattern mode."

 REFERENCE

 "IEEE Std 802.3, 50.3.8, 45.2.2.7.2, and 45.2.2.8"

 ::= { etherWisDeviceEntry 3 }

 -- The Section group

 -- These objects provide WIS extensions to

 -- the SONET-MIB Section Group.

 etherWisSectionCurrentTable OBJECT-TYPE

 SYNTAX SEQUENCE OF EtherWisSectionCurrentEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "The table for the current state of Ethernet WIS sections."

 ::= { etherWisSection 1 }

 etherWisSectionCurrentEntry OBJECT-TYPE

 SYNTAX EtherWisSectionCurrentEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the etherWisSectionCurrentTable. For each

 instance of this object there shall be a corresponding

 instance of sonetSectionCurrentEntry."

 INDEX { ifIndex }

 ::= { etherWisSectionCurrentTable 1 }

 EtherWisSectionCurrentEntry ::=

 SEQUENCE {

 etherWisSectionCurrentJ0Transmitted OCTET STRING,

 etherWisSectionCurrentJ0Received OCTET STRING

 }

 etherWisSectionCurrentJ0Transmitted OBJECT-TYPE

 SYNTAX OCTET STRING (SIZE (16))

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is the 16-octet section trace message that

 is transmitted in the J0 byte. The value should

 be '89'h followed by fifteen octets of '00'h

 (or some cyclic shift thereof) when the section

 trace function is not used, and the implementation

 should use that value (or a cyclic shift thereof)

 as a default if no other value has been set."

 REFERENCE

 "IEEE Std 802.3, 30.8.1.1.8"

 ::= { etherWisSectionCurrentEntry 1 }

 etherWisSectionCurrentJ0Received OBJECT-TYPE

 SYNTAX OCTET STRING (SIZE (16))

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is the 16-octet section trace message that

 was most recently received in the J0 byte."

 REFERENCE

 "IEEE Std 802.3, 30.8.1.1.9"

 ::= { etherWisSectionCurrentEntry 2 }

 -- The Path group

 -- These objects provide WIS extensions to

 -- the SONET-MIB Path Group.

 etherWisPathCurrentTable OBJECT-TYPE

 SYNTAX SEQUENCE OF EtherWisPathCurrentEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "The table for the current state of Ethernet WIS paths."

 ::= { etherWisPath 1 }

 etherWisPathCurrentEntry OBJECT-TYPE

 SYNTAX EtherWisPathCurrentEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the etherWisPathCurrentTable. For each

 instance of this object there shall be a corresponding

 instance of sonetPathCurrentEntry."

 INDEX { ifIndex }

 ::= { etherWisPathCurrentTable 1 }

 EtherWisPathCurrentEntry ::=

 SEQUENCE {

 etherWisPathCurrentStatus BITS,

 etherWisPathCurrentJ1Transmitted OCTET STRING,

 etherWisPathCurrentJ1Received OCTET STRING

 }

 etherWisPathCurrentStatus OBJECT-TYPE

 SYNTAX BITS {

 etherWisPathLOP(0),

 etherWisPathAIS(1),

 etherWisPathPLM(2),

 etherWisPathLCD(3)

 }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This variable indicates the current status of the

 path payload with a bit map that can indicate multiple

 defects at once. The bit positions are assigned as

 follows:

 etherWisPathLOP(0)

 This bit is set to indicate that an

 LOP-P (Loss of Pointer - Path) defect

 is being experienced. When this

 bit is set, sonetPathSTSLOP shall be set

 in the corresponding instance of

 sonetPathCurrentStatus.

 etherWisPathAIS(1)

 This bit is set to indicate that an

 AIS-P (Alarm Indication Signal - Path)

 defect is being experienced. When

 this bit is set, sonetPathSTSAIS shall be

 set in the corresponding instance of

 sonetPathCurrentStatus.

 etherWisPathPLM(1)

 This bit is set to indicate that a

 PLM-P (Payload Label Mismatch - Path)

 defect is being experienced. When

 this bit is set, sonetPathSignalLabelMismatch

 shall be set in the corresponding instance of

 sonetPathCurrentStatus.

 etherWisPathLCD(3)

 This bit is set to indicate that an

 LCD-P (Loss of Codegroup Delination - Path)

 defect is being experienced. Since this

 defect is detected by the PCS and not by

 the path layer itself, there is no

 corresponding bit in sonetPathCurrentStatus."

 REFERENCE

 "IEEE Std 802.3, 30.8.1.1.18"

 ::= { etherWisPathCurrentEntry 1 }

 etherWisPathCurrentJ1Transmitted OBJECT-TYPE

 SYNTAX OCTET STRING (SIZE (16))

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This is the 16-octet path trace message that

 is transmitted in the J1 byte. The value should

 be '89'h followed by fifteen octets of '00'h

 (or some cyclic shift thereof) when the path

 trace function is not used, and the implementation

 should use that value (or a cyclic shift thereof)

 as a default if no other value has been set."

 REFERENCE

 "IEEE Std 802.3, 30.8.1.1.23"

 ::= { etherWisPathCurrentEntry 2 }

 etherWisPathCurrentJ1Received OBJECT-TYPE

 SYNTAX OCTET STRING (SIZE (16))

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This is the 16-octet path trace message that

 was most recently received in the J1 byte."

 REFERENCE

 "IEEE Std 802.3, 30.8.1.1.24"

 ::= { etherWisPathCurrentEntry 3 }

 -- The Far End Path group

 -- These objects provide WIS extensions to

 -- the SONET-MIB Far End Path Group.

 etherWisFarEndPathCurrentTable OBJECT-TYPE

 SYNTAX SEQUENCE OF EtherWisFarEndPathCurrentEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "The table for the current far-end state of Ethernet WIS

 paths."

 ::= { etherWisFarEndPath 1 }

 etherWisFarEndPathCurrentEntry OBJECT-TYPE

 SYNTAX EtherWisFarEndPathCurrentEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the etherWisFarEndPathCurrentTable. For each

 instance of this object there shall be a corresponding

 instance of sonetFarEndPathCurrentEntry."

 INDEX { ifIndex }

 ::= { etherWisFarEndPathCurrentTable 1 }

 EtherWisFarEndPathCurrentEntry ::=

 SEQUENCE {

 etherWisFarEndPathCurrentStatus BITS

 }

 etherWisFarEndPathCurrentStatus OBJECT-TYPE

 SYNTAX BITS {

 etherWisFarEndPayloadDefect(0),

 etherWisFarEndServerDefect(1)

 }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "This variable indicates the current status at the

 far end of the path using a bit map that can indicate

 multiple defects at once. The bit positions are

 assigned as follows:

 etherWisFarEndPayloadDefect(0)

 A far end payload defect (i.e., far end

 PLM-P or LCD-P) is currently being signaled

 in G1 bits 5-7.

 etherWisFarEndServerDefect(1)

 A far end server defect (i.e., far end

 LOP-P or AIS-P) is currently being signaled

 in G1 bits 5-7. When this bit is set,

 sonetPathSTSRDI shall be set in the corresponding

 instance of sonetPathCurrentStatus."

 REFERENCE

 "IEEE Std 802.3, 30.8.1.1.25"

 ::= { etherWisFarEndPathCurrentEntry 1 }

 --

 -- Conformance Statements

 --

 etherWisGroups OBJECT IDENTIFIER ::= { etherWisConformance 1 }

 etherWisCompliances OBJECT IDENTIFIER ::= { etherWisConformance 2 }

 -- Object Groups

 etherWisDeviceGroupBasic OBJECT-GROUP

 OBJECTS {

 etherWisDeviceTxTestPatternMode,

 etherWisDeviceRxTestPatternMode

 }

 STATUS current

 DESCRIPTION

 "A collection of objects that support test

 features required of all WIS devices."

 ::= { etherWisGroups 1 }

 etherWisDeviceGroupExtra OBJECT-GROUP

 OBJECTS {

 etherWisDeviceRxTestPatternErrors

 }

 STATUS current

 DESCRIPTION

 "A collection of objects that support

 optional WIS device test features."

 ::= { etherWisGroups 2 }

 etherWisSectionGroup OBJECT-GROUP

 OBJECTS {

 etherWisSectionCurrentJ0Transmitted,

 etherWisSectionCurrentJ0Received

 }

 STATUS current

 DESCRIPTION

 "A collection of objects that provide

 required information about a WIS section."

 ::= { etherWisGroups 3 }

 etherWisPathGroup OBJECT-GROUP

 OBJECTS {

 etherWisPathCurrentStatus,

 etherWisPathCurrentJ1Transmitted,

 etherWisPathCurrentJ1Received

 }

 STATUS current

 DESCRIPTION

 "A collection of objects that provide

 required information about a WIS path."

 ::= { etherWisGroups 4 }

 etherWisFarEndPathGroup OBJECT-GROUP

 OBJECTS {

 etherWisFarEndPathCurrentStatus

 }

 STATUS current

 DESCRIPTION

 "A collection of objects that provide required

 information about the far end of a WIS path."

 ::= { etherWisGroups 5 }

 -- Compliance Statements

 etherWisCompliance MODULE-COMPLIANCE

 STATUS current

 DESCRIPTION

 "The compliance statement for interfaces that include

 the Ethernet WIS. Compliance with the following

 external compliance statements is prerequisite:

 MIB module Compliance Statement

 ---------- --------------------

 IF-MIB ifCompliance3

 IF-INVERTED-STACK-MIB ifInvCompliance

 IEEE8023-EtherLike-MIB dot3Compliance2

 MAU-MIB mauModIfCompl3"

 MODULE -- this module

 MANDATORY-GROUPS {

 etherWisDeviceGroupBasic,

 etherWisSectionGroup,

 etherWisPathGroup,

 etherWisFarEndPathGroup

 }

 OBJECT etherWisDeviceTxTestPatternMode

 SYNTAX INTEGER {

 none(1),

 squareWave(2),

 mixedFrequency(4)

 }

 DESCRIPTION

 "Support for values other than none(1),

 squareWave(2), and mixedFrequency(4)

 is not required."

 OBJECT etherWisDeviceRxTestPatternMode

 SYNTAX INTEGER {

 none(1),

 mixedFrequency(4)

 }

 DESCRIPTION

 "Support for values other than none(1)

 and mixedFrequency(4) is not required."

 GROUP etherWisDeviceGroupExtra

 DESCRIPTION

 "Implementation of this group, along with support for

 the value prbs31(3) for etherWisDeviceTxTestPatternMode

 and etherWisDeviceRxTestPatternMode, is necessary if the

 optional PRBS31 test pattern mode is to be supported."

 OBJECT etherWisDeviceRxTestPatternErrors

 WRITE-SYNTAX Gauge32 ( 0 )

 DESCRIPTION

 "An implementation is not required to

 allow values other than zero to be

 written to this object."

 MODULE SONET-MIB

 MANDATORY-GROUPS {

 sonetMediumStuff2,

 sonetSectionStuff2,

 sonetLineStuff2,

 sonetFarEndLineStuff2,

 sonetPathStuff2,

 sonetFarEndPathStuff2

 }

 OBJECT sonetMediumType

 SYNTAX INTEGER {

 sonet(1)

 }

 MIN-ACCESS read-only

 DESCRIPTION

 "Write access is not required, nor is support

 for any value other than sonet(1)."

 OBJECT sonetMediumLineCoding

 SYNTAX INTEGER {

 sonetMediumNRZ(4)

 }

 MIN-ACCESS read-only

 DESCRIPTION

 "Write access is not required, nor is support

 for any value other than sonetMediumNRZ(4)."

 OBJECT sonetMediumLineType

 MIN-ACCESS read-only

 DESCRIPTION

 "Write access is not required."

 OBJECT sonetMediumCircuitIdentifier

 MIN-ACCESS read-only

 DESCRIPTION

 "Write access is not required."

 OBJECT sonetMediumLoopbackConfig

 SYNTAX BITS {

 sonetNoLoop(0),

 sonetFacilityLoop(1)

 }

 MIN-ACCESS read-only

 DESCRIPTION

 "Write access is not required, nor is support for values

 other than sonetNoLoop(0) and sonetFacilityLoop(1)."

 OBJECT sonetSESthresholdSet

 MIN-ACCESS read-only

 DESCRIPTION

 "Write access is not required, and only one

 of the enumerated values need be supported."

 OBJECT sonetPathCurrentWidth

 SYNTAX INTEGER {

 sts192cSTM64(6)

 }

 MIN-ACCESS read-only

 DESCRIPTION

 "Write access is not required, nor is support

 for any value other than sts192cSTM64(6)."

 ::= { etherWisCompliances 1 }

 END