IEEE8023-DOT3-OAM-MIB DEFINITIONS ::= BEGIN

 IMPORTS

 MODULE-IDENTITY, OBJECT-TYPE, Counter32, Unsigned32,

 Integer32, NOTIFICATION-TYPE, org

 FROM SNMPv2-SMI

 -- from [RFC2578]

 TEXTUAL-CONVENTION, MacAddress, TimeStamp, TruthValue

 FROM SNMPv2-TC

 -- from [RFC2579]

 CounterBasedGauge64

 FROM HCNUM-TC

 -- from [RFC2856]

 ifIndex

 FROM IF-MIB

 -- from [RFC2863]

 MODULE-COMPLIANCE, OBJECT-GROUP, NOTIFICATION-GROUP

 FROM SNMPv2-CONF;

 -- from [RFC2580]

 ieee8023Dot3OamMIB MODULE-IDENTITY

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

 ORGANIZATION

 "IEEE 802.3 Working Group"

 CONTACT-INFO

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 DESCRIPTION

 "The MIB module for managing the new Ethernet OAM features

 introduced by the Ethernet in the First Mile Task Force (IEEE

 802.3ah). The functionality presented here is based on IEEE

 Std 802.3ah, released in October, 2004, which was prepared as

 an addendum to IEEE Std 802.3. Since then, IEEE Std 802.3ah

 has been merged into the base IEEE 802.3 standard.

 In particular, this MIB focuses on the new OAM functions

 introduced in Clause 57 of IEEE Std 802.3. The OAM functionality

 of Clause 57 is controlled by new management attributes

 introduced in Clause 30 of IEEE Std 802.3. The OAM functions are

 not specific to any particular Ethernet Physical Layer, and

 can be generically applied to any Ethernet interface.

 An Ethernet OAM protocol data unit is a valid Ethernet frame

 with a destination MAC address equal to the reserved MAC

 address for Slow Protocols (See Annex 57A of IEEE Std 802.3), a

 lengthOrType field equal to the reserved type for Slow

 Protocols, and a Slow Protocols subtype equal to that of the

 subtype reserved for Ethernet OAM. OAMPDU is used throughout

 this document as an abbreviation for Ethernet OAM protocol

 data unit."

 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 in RFC 4878."

 ::= { org ieee(111)

 standards-association-numbers-series-standards(2)

 lan-man-stds(802) ieee802dot3(3) ieee802dot3dot1mibs(1) 6 }

 --

 -- Sections of the Ethernet OAM MIB

 --

 dot3OamNotifications OBJECT IDENTIFIER ::= { ieee8023Dot3OamMIB 0 }

 dot3OamObjects OBJECT IDENTIFIER ::= { ieee8023Dot3OamMIB 1 }

 dot3OamConformance OBJECT IDENTIFIER ::= { ieee8023Dot3OamMIB 2 }

 --

 -- Textual conventions for the OAM MIB

 --

 EightOTwoOui ::= TEXTUAL-CONVENTION

 DISPLAY-HINT "3x:"

 STATUS current

 DESCRIPTION

 "24-bit Organizationally Unique Identifier. Information on

 OUIs can be found in IEEE 802-2001 [802-2001], Clause 9."

 SYNTAX OCTET STRING(SIZE(3))

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

 --

 -- Ethernet OAM Control group

 --

 dot3OamTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot3OamEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "This table contains the primary controls and status for the

 OAM capabilities of an Ethernet-like interface. There will be

 one row in this table for each Ethernet-like interface in the

 system that supports the OAM functions defined in IEEE Std 802.3."

 ::= { dot3OamObjects 1 }

 dot3OamEntry OBJECT-TYPE

 SYNTAX Dot3OamEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the table that contains information on the

 Ethernet OAM function for a single Ethernet like interface.

 Entries in the table are created automatically for each

 interface supporting Ethernet OAM. The status of the row

 entry can be determined from dot3OamOperStatus.

 A dot3OamEntry is indexed in the dot3OamTable by the ifIndex

 object of the Interfaces Group MIB.

 "

 INDEX { ifIndex }

 ::= { dot3OamTable 1 }

 Dot3OamEntry ::=

 SEQUENCE {

 dot3OamAdminState INTEGER,

 dot3OamOperStatus INTEGER,

 dot3OamMode INTEGER,

 dot3OamMaxOamPduSize Unsigned32,

 dot3OamConfigRevision Unsigned32,

 dot3OamFunctionsSupported BITS

 }

 dot3OamAdminState OBJECT-TYPE

 SYNTAX INTEGER {

 enabled(1),

 disabled(2)

 }

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This object is used to provision the default administrative

 OAM mode for this interface. This object represents the

 desired state of OAM for this interface.

 The dot3OamAdminState starts in the disabled(2) state

 until an explicit management action or configuration

 information retained by the system causes a transition to the

 enabled(1) state. When enabled(1), Ethernet OAM will attempt

 to operate over this interface."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.2"

 ::= { dot3OamEntry 1 }

 dot3OamOperStatus OBJECT-TYPE

 SYNTAX INTEGER {

 disabled(1),

 linkFault(2),

 passiveWait(3),

 activeSendLocal(4),

 sendLocalAndRemote(5),

 sendLocalAndRemoteOk(6),

 oamPeeringLocallyRejected(7),

 oamPeeringRemotelyRejected(8),

 operational(9),

 nonOperHalfDuplex(10)

 }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "At initialization and failure conditions, two OAM entities on

 the same full-duplex Ethernet link begin a discovery phase to

 determine what OAM capabilities may be used on that link. The

 progress of this initialization is controlled by the OAM

 sublayer.

 This value is disabled(1) if OAM is disabled on this

 interface via the dot3OamAdminState.

 If the link has detected a fault and is transmitting OAMPDUs

 with a link fault indication, the value is linkFault(2).

 Also, if the interface is not operational (ifOperStatus is

 not up(1)), linkFault(2) is returned. Note that the object

 ifOperStatus may not be up(1) as a result of link failure or

 administrative action (ifAdminState being down(2) or

 testing(3)).

 The passiveWait(3) state is returned only by OAM entities in

 passive mode (dot3OamMode) and reflects the state in which the

 OAM entity is waiting to see if the peer device is OAM

 capable. The activeSendLocal(4) value is used by active mode

 devices (dot3OamMode) and reflects the OAM entity actively

 trying to discover whether the peer has OAM capability but has

 not yet made that determination.

 The state sendLocalAndRemote(5) reflects that the local OAM

 entity has discovered the peer but has not yet accepted or

 rejected the configuration of the peer. The local device can,

 for whatever reason, decide that the peer device is

 unacceptable and decline OAM peering. If the local OAM entity

 rejects the peer OAM entity, the state becomes

 oamPeeringLocallyRejected(7). If the OAM peering is allowed

 by the local device, the state moves to

 sendLocalAndRemoteOk(6). Note that both the

 sendLocalAndRemote(5) and oamPeeringLocallyRejected(7) states

 fall within the state SEND\_LOCAL\_REMOTE of the Discovery state

 diagram (see IEEE Std 802.3, Figure 57-5), with the difference being

 whether the local OAM client has actively rejected the peering

 or has just not indicated any decision yet. Whether a peering

 decision has been made is indicated via the local flags field

 in the OAMPDU (reflected in the aOAMLocalFlagsField of

 IEEE Std 802.3, 30.3.6.1.10).

 If the remote OAM entity rejects the peering, the state

 becomes oamPeeringRemotelyRejected(8). Note that both the

 sendLocalAndRemoteOk(6) and oamPeeringRemotelyRejected(8)

 states fall within the state SEND\_LOCAL\_REMOTE\_OK of the

 Discovery state diagram (see IEEE Std 802.3, Figure 57-5), with the

 difference being whether the remote OAM client has rejected

 the peering or has just not yet decided. This is indicated

 via the remote flags field in the OAMPDU (reflected in the

 aOAMRemoteFlagsField of IEEE Std 802.3, 30.3.6.1.11).

 When the local OAM entity learns that both it and the remote

 OAM entity have accepted the peering, the state moves to

 operational(9) corresponding to the SEND\_ANY state of the

 Discovery state diagram (see IEEE Std 802.3, Figure 57-5).

 Since Ethernet OAM functions are not designed to work

 completely over half-duplex interfaces, the value

 nonOperHalfDuplex(10) is returned whenever Ethernet OAM is

 enabled (dot3OamAdminState is enabled(1)), but the interface

 is in half-duplex operation."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.4, 30.3.6.1.10, 30.3.6.1.11"

 ::= { dot3OamEntry 2 }

 dot3OamMode OBJECT-TYPE

 SYNTAX INTEGER {

 passive(1),

 active(2)

 }

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "This object configures the mode of OAM operation for this

 Ethernet-like interface. OAM on Ethernet interfaces may be in

 'active' mode or 'passive' mode. These two modes differ in

 that active mode provides additional capabilities to initiate

 monitoring activities with the remote OAM peer entity, while

 passive mode generally waits for the peer to initiate OAM

 actions with it. As an example, an active OAM entity can put

 the remote OAM entity in a loopback state, where a passive OAM

 entity cannot.

 The default value of dot3OamMode is dependent on the type of

 system on which this Ethernet-like interface resides. The

 default value should be 'active(2)' unless it is known that

 this system should take on a subservient role to the other

 device connected over this interface.

 Changing this value results in incrementing the configuration

 revision field of locally generated OAMPDUs (IEEE Std 802.3,

 30.3.6.1.12) and potentially rerunning the OAM discovery process

 if the dot3OamOperStatus was already operational(9)."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.3"

 ::= { dot3OamEntry 3 }

 dot3OamMaxOamPduSize OBJECT-TYPE

 SYNTAX Unsigned32 (64..1518)

 UNITS "octets"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The largest OAMPDU that the OAM entity supports. OAM

 entities exchange maximum OAMPDU sizes and negotiate to use

 the smaller of the two maximum OAMPDU sizes between the peers.

 This value is determined by the local implementation."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.8"

 ::= { dot3OamEntry 4 }

 dot3OamConfigRevision OBJECT-TYPE

 SYNTAX Unsigned32(0..65535)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The configuration revision (see IEEE Std 802.3, 57.5.2.1) of

 the OAM entity as reflected in the latest OAMPDU sent by the

 OAM entity. The config revision is used by OAM entities to

 indicate that configuration changes have occurred, which might

 require the peer OAM entity to re-evaluate whether OAM peering

 is allowed."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.12"

 ::= { dot3OamEntry 5 }

 dot3OamFunctionsSupported OBJECT-TYPE

 SYNTAX BITS {

 unidirectionalSupport (0),

 loopbackSupport(1),

 eventSupport(2),

 variableSupport(3)

 }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The OAM functions supported on this Ethernet-like interface.

 OAM consists of separate functional sets beyond the basic

 discovery process that is required. These functional

 groups can be supported independently by any implementation.

 These values are communicated to the peer via the local

 configuration field of Information OAMPDUs.

 Setting 'unidirectionalSupport(0)' indicates that the OAM

 entity supports the transmission of OAMPDUs on links that are

 operating in unidirectional mode (traffic flowing in one

 direction only). Setting 'loopbackSupport(1)' indicates that

 the OAM entity can initiate and respond to loopback commands.

 Setting 'eventSupport(2)' indicates that the OAM entity can

 send and receive Event Notification OAMPDUs. Setting

 'variableSupport(3)' indicates that the OAM entity can send

 and receive Variable Request and Response OAMPDUs."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.6"

 ::= { dot3OamEntry 6 }

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

 --

 -- Ethernet OAM Peer group

 --

 dot3OamPeerTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot3OamPeerEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "This table contains information about the OAM peer for a

 particular Ethernet-like interface. OAM entities communicate

 with a single OAM peer entity on Ethernet links on which OAM

 is enabled and operating properly. There is one entry in this

 table for each entry in the dot3OamTable for which information

 on the peer OAM entity is available."

 ::= { dot3OamObjects 2 }

 dot3OamPeerEntry OBJECT-TYPE

 SYNTAX Dot3OamPeerEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the table containing information on the peer OAM

 entity for a single Ethernet-like interface.

 Note that there is at most one OAM peer for each Ethernet-like

 interface. Entries are automatically created when information

 about the OAM peer entity becomes available, and automatically

 deleted when the OAM peer entity is no longer in

 communication. Peer information is not available when

 dot3OamOperStatus is disabled(1), linkFault(2),

 passiveWait(3), activeSendLocal(4), or nonOperHalfDuplex(10)."

 INDEX { ifIndex }

 ::= { dot3OamPeerTable 1 }

 Dot3OamPeerEntry ::=

 SEQUENCE {

 dot3OamPeerMacAddress MacAddress,

 dot3OamPeerVendorOui EightOTwoOui,

 dot3OamPeerVendorInfo Unsigned32,

 dot3OamPeerMode INTEGER,

 dot3OamPeerMaxOamPduSize Unsigned32,

 dot3OamPeerConfigRevision Unsigned32,

 dot3OamPeerFunctionsSupported BITS

 }

 dot3OamPeerMacAddress OBJECT-TYPE

 SYNTAX MacAddress

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The MAC address of the peer OAM entity. The MAC address is

 derived from the most recently received OAMPDU.

 This value is updated on reception of a valid frame with

 (1) a destinationField equal to the reserved multicast address

 for Slow\_Protocols specified in IEEE Std 802.3, Table 57A–1,

 (2) lengthOrType field value equal to the reserved Type for

 Slow\_Protocols as specified in IEEE Std 802.3, Table 57A–2,

 (3) a Slow\_Protocols subtype value equal to the subtype reserved

 for OAM as specified in IEEE Std 802.3, Table 57A–3.;"

 REFERENCE "IEEE Std 802.3, 30.3.6.1.5."

 ::= { dot3OamPeerEntry 1 }

 dot3OamPeerVendorOui OBJECT-TYPE

 SYNTAX EightOTwoOui

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The OUI/CID of the OAM peer as reflected in the latest

 Information OAMPDU received with a Local Information TLV. The

 OUI can be used to identify the vendor of the remote OAM

 entity. This value is initialized to three octets of zero

 before any Local Information TLV is received

 (see IEEE Std 802.3, 57.5.2.1)."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.16."

 ::= { dot3OamPeerEntry 2 }

 dot3OamPeerVendorInfo OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The Vendor Info of the OAM peer as reflected in the latest

 Information OAMPDU received with a Local Information TLV.

 The semantics of the Vendor Information field is proprietary

 and specific to the vendor (identified by the

 dot3OamPeerVendorOui). This information could, for example,

 be used to identify a specific product or product family.

 This value is initialized to zero before any Local

 Information TLV is received

 (see IEEE Std 802.3, 57.5.2.1)."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.17."

 ::= { dot3OamPeerEntry 3 }

 dot3OamPeerMode OBJECT-TYPE

 SYNTAX INTEGER {

 passive(1),

 active(2),

 unknown(3)

 }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The mode of the OAM peer as reflected in the latest

 Information OAMPDU received with a Local Information TLV. The

 mode of the peer can be determined from the Configuration

 field in the Local Information TLV of the last Information

 OAMPDU received from the peer. The value is unknown(3)

 whenever no Local Information TLV has been received. The

 values of active(2) and passive(1) are returned when a Local

 Information TLV has been received indicating that the peer is

 in active or passive mode, respectively."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.7."

 ::= { dot3OamPeerEntry 4 }

 dot3OamPeerMaxOamPduSize OBJECT-TYPE

 SYNTAX Unsigned32 (0 | 64..1518)

 UNITS "octets"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The maximum size of OAMPDU supported by the peer as reflected

 in the latest Information OAMPDU received with a Local

 Information TLV. Ethernet OAM on this interface shall not use

 OAMPDUs that exceed this size. The maximum OAMPDU size can be

 determined from the PDU Configuration field of the Local

 Information TLV of the last Information OAMPDU received from

 the peer. A value of zero is returned if no Local Information

 TLV has been received. Otherwise, the value of the OAM peer's

 maximum OAMPDU size is returned in this value."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.9."

 ::= { dot3OamPeerEntry 5 }

 dot3OamPeerConfigRevision OBJECT-TYPE

 SYNTAX Unsigned32(0..65535)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The configuration revision (see IEEE Std 802.3, 57.5.2.1)of

 the OAM peer as reflected in the latest OAMPDU. This attribute

 is changed by the peer whenever it has a local configuration

 change for Ethernet OAM on this interface. The configuration

 revision can be determined from the Revision field of the

 Local Information TLV of the most recently received

 Information OAMPDU with a Local Information TLV. A value of

 zero is returned if no Local Information TLV has been received."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.13."

 ::= { dot3OamPeerEntry 6 }

 dot3OamPeerFunctionsSupported OBJECT-TYPE

 SYNTAX BITS {

 unidirectionalSupport(0),

 loopbackSupport(1),

 eventSupport(2),

 variableSupport(3)

 }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The OAM functions supported on this Ethernet-like interface.

 OAM consists of separate functionality sets above the basic

 discovery process. This value indicates the capabilities of

 the peer OAM entity with respect to these functions. This

 value is initialized so all bits are clear.

 If unidirectionalSupport(0) is set, then the peer OAM entity

 supports sending OAM frames on Ethernet interfaces when the

 receive path is known to be inoperable. If

 loopbackSupport(1) is set, then the peer OAM entity can send

 and receive OAM loopback commands. If eventSupport(2) is set,

 then the peer OAM entity can send and receive event OAMPDUs to

 signal various error conditions. If variableSupport(3) is

 set, then the peer OAM entity can send and receive variable

 requests to monitor the attribute value as described in

 IEEE Std 802.3, Clause 57.

 The capabilities of the OAM peer can be determined from the

 configuration field of the Local Information TLV of the most

 recently received Information OAMPDU with a Local Information

 TLV. All zeros are returned if no Local Information TLV has

 yet been received."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.7."

 ::= { dot3OamPeerEntry 7 }

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

 --

 -- Ethernet OAM Loopback group

 --

 dot3OamLoopbackTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot3OamLoopbackEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "This table contains controls for the loopback state of the

 local link as well as indicates the status of the loopback

 function. There is one entry in this table for each entry in

 dot3OamTable that supports loopback functionality (where

 dot3OamFunctionsSupported includes the loopbackSupport bit

 set).

 Loopback can be used to place the remote OAM entity in a state

 where every received frame (except OAMPDUs) is echoed back

 over the same interface on which they were received. In this

 state, at the remote entity, 'normal' traffic is disabled as

 only the looped back frames are transmitted on the interface.

 Loopback is thus an intrusive operation that prohibits normal

 data flow and should be used accordingly."

 ::= { dot3OamObjects 3 }

 dot3OamLoopbackEntry OBJECT-TYPE

 SYNTAX Dot3OamLoopbackEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the table, containing information on the loopback

 status for a single Ethernet-like interface. Entries in the

 table are automatically created whenever the local OAM entity

 supports loopback capabilities. The loopback status on the

 interface can be determined from the dot3OamLoopbackStatus

 object."

 INDEX { ifIndex }

 ::= { dot3OamLoopbackTable 1 }

 Dot3OamLoopbackEntry ::=

 SEQUENCE {

 dot3OamLoopbackStatus INTEGER,

 dot3OamLoopbackIgnoreRx INTEGER

 }

 dot3OamLoopbackStatus OBJECT-TYPE

 SYNTAX INTEGER {

 -- all values, except where noted, can be read

 -- but cannot be written

 noLoopback (1),

 -- initiatingLoopback can be read or written

 initiatingLoopback (2),

 remoteLoopback (3),

 -- terminatingLoopback can be read or written

 terminatingLoopback (4),

 localLoopback (5),

 unknown (6)

 }

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The loopback status of the OAM entity. This status is

 determined by a combination of the local parser and

 multiplexer states, the remote parser and multiplexer states,

 as well as by the actions of the local OAM client. When

 operating in normal mode with no loopback in progress, the

 status reads noLoopback(1).

 The values initiatingLoopback(2) and terminatingLoopback(4)

 can be read or written. The other values can only be read -

 they can never be written. Writing initiatingLoopback causes

 the local OAM entity to start the loopback process with its

 peer. This value can only be written when the status is

 noLoopback(1). Writing the value initiatingLoopback(2) in any

 other state has no effect. When in remoteLoopback(3), writing

 terminatingLoopback(4) causes the local OAM entity to initiate

 the termination of the loopback state. Writing

 terminatingLoopack(4) in any other state has no effect.

 If the OAM client initiates a loopback and has sent a

 Loopback OAMPDU and is waiting for a response, where the local

 parser and multiplexer states are DISCARD (see IEEE Std 802.3,

 57.2.11.1), the status is 'initiatingLoopback'. In this

 case, the local OAM entity has yet to receive any

 acknowledgment that the remote OAM entity has received its

 loopback command request.

 If the local OAM client knows that the remote OAM entity is in

 loopback mode (via the remote state information as described

 in IEEE Std 802.3, 57.2.11.1, 30.3.6.1.15), the status is

 remoteLoopback(3). If the local OAM client is in the process

 of terminating the remote loopback (see IEEE Std 802.3, 57.2.11.3,

 30.3.6.1.14) with its local multiplexer and parser states in

 DISCARD, the status is terminatingLoopback(4). If the remote

 OAM client has put the local OAM entity in loopback mode as

 indicated by its local parser state, the status is

 localLoopback(5).

 The unknown(6) status indicates that the parser and

 multiplexer combination is unexpected. This status may be

 returned if the OAM loopback is in a transition state but

 should not persist.

 The values of this attribute correspond to the following

 values of the local and remote parser and multiplexer states.

 value LclPrsr LclMux RmtPrsr RmtMux

 noLoopback FWD FWD FWD FWD

 initLoopback DISCARD DISCARD FWD FWD

 rmtLoopback DISCARD FWD LPBK DISCARD

 tmtngLoopback DISCARD DISCARD LPBK DISCARD

 lclLoopback LPBK DISCARD DISCARD FWD

 unknown \*\*\* any other combination \*\*\*

 "

 REFERENCE "IEEE Std 802.3, 57.2.11, 30.3.6.1.14, 30.3.6.1.15"

 ::= { dot3OamLoopbackEntry 1 }

 dot3OamLoopbackIgnoreRx OBJECT-TYPE

 SYNTAX INTEGER {

 ignore(1),

 process(2)

 }

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "Since OAM loopback is a disruptive operation (user traffic

 does not pass), this attribute provides a mechanism to provide

 controls over whether received OAM loopback commands are

 processed or ignored. When the value is ignore(1), received

 loopback commands are ignored. When the value is process(2),

 OAM loopback commands are processed. The default value is to

 ignore loopback commands (ignore(1))."

 REFERENCE "IEEE Std 802.3, 57.2.11, 30.3.6.1.14, 30.3.6.1.15"

 ::= { dot3OamLoopbackEntry 2 }

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

 --

 -- Ethernet OAM Statistics group

 --

 dot3OamStatsTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot3OamStatsEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "This table contains statistics for the OAM function on a

 particular Ethernet-like interface. There is an entry in the

 table for every entry in the dot3OamTable.

 The counters in this table are defined as 32-bit entries to

 match the counter size as defined in IEEE Std 802.3. Given that

 the OAM protocol is a slow protocol, the counters increment at

 a slow rate."

 ::= { dot3OamObjects 4 }

 dot3OamStatsEntry OBJECT-TYPE

 SYNTAX Dot3OamStatsEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the table containing statistics information on

 the Ethernet OAM function for a single Ethernet-like

 interface. Entries are automatically created for every entry

 in the dot3OamTable. Counters are maintained across

 transitions in dot3OamOperStatus."

 INDEX { ifIndex }

 ::= { dot3OamStatsTable 1 }

 Dot3OamStatsEntry ::=

 SEQUENCE {

 dot3OamInformationTx Counter32,

 dot3OamInformationRx Counter32,

 dot3OamUniqueEventNotificationTx Counter32,

 dot3OamUniqueEventNotificationRx Counter32,

 dot3OamDuplicateEventNotificationTx Counter32,

 dot3OamDuplicateEventNotificationRx Counter32,

 dot3OamLoopbackControlTx Counter32,

 dot3OamLoopbackControlRx Counter32,

 dot3OamVariableRequestTx Counter32,

 dot3OamVariableRequestRx Counter32,

 dot3OamVariableResponseTx Counter32,

 dot3OamVariableResponseRx Counter32,

 dot3OamOrgSpecificTx Counter32,

 dot3OamOrgSpecificRx Counter32,

 dot3OamUnsupportedCodesTx Counter32,

 dot3OamUnsupportedCodesRx Counter32,

 dot3OamFramesLostDueToOam Counter32

 }

 dot3OamInformationTx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Information OAMPDUs transmitted on

 this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.20."

 ::= { dot3OamStatsEntry 1 }

 dot3OamInformationRx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Information OAMPDUs received on this

 interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.21."

 ::= { dot3OamStatsEntry 2 }

 dot3OamUniqueEventNotificationTx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of unique Event OAMPDUs transmitted on

 this interface. Event Notifications may be sent in duplicate

 to increase the probability of successfully being received,

 given the possibility that a frame may be lost in transit.

 Duplicate Event Notification transmissions are counted by

 dot3OamDuplicateEventNotificationTx.

 A unique Event Notification OAMPDU is indicated as an Event

 Notification OAMPDU with a Sequence Number field that is

 distinct from the previously transmitted Event Notification

 OAMPDU Sequence Number.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.22."

 ::= { dot3OamStatsEntry 3 }

 dot3OamUniqueEventNotificationRx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of unique Event OAMPDUs received on

 this interface. Event Notification OAMPDUs may be sent in

 duplicate to increase the probability of successfully being

 received, given the possibility that a frame may be lost in

 transit. Duplicate Event Notification receptions are counted

 by dot3OamDuplicateEventNotificationRx.

 A unique Event Notification OAMPDU is indicated as an Event

 Notification OAMPDU with a Sequence Number field that is

 distinct from the previously received Event Notification

 OAMPDU Sequence Number.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.24."

 ::= { dot3OamStatsEntry 4 }

 dot3OamDuplicateEventNotificationTx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of duplicate Event OAMPDUs transmitted

 on this interface. Event Notification OAMPDUs may be sent in

 duplicate to increase the probability of successfully being

 received, given the possibility that a frame may be lost in

 transit.

 A duplicate Event Notification OAMPDU is indicated as an Event

 Notification OAMPDU with a Sequence Number field that is

 identical to the previously transmitted Event Notification

 OAMPDU Sequence Number.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.23."

 ::= { dot3OamStatsEntry 5 }

 dot3OamDuplicateEventNotificationRx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of duplicate Event OAMPDUs received on

 this interface. Event Notification OAMPDUs may be sent in

 duplicate to increase the probability of successfully being

 received, given the possibility that a frame may be lost in

 transit.

 A duplicate Event Notification OAMPDU is indicated as an Event

 Notification OAMPDU with a Sequence Number field that is

 identical to the previously received Event Notification OAMPDU

 Sequence Number.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.25."

 ::= { dot3OamStatsEntry 6 }

 dot3OamLoopbackControlTx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Loopback Control OAMPDUs transmitted

 on this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.26."

 ::= { dot3OamStatsEntry 7 }

 dot3OamLoopbackControlRx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Loopback Control OAMPDUs received

 on this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.27."

 ::= { dot3OamStatsEntry 8 }

 dot3OamVariableRequestTx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Variable Request OAMPDUs transmitted

 on this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.28."

 ::= { dot3OamStatsEntry 9 }

 dot3OamVariableRequestRx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Variable Request OAMPDUs received on

 this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.29."

 ::= { dot3OamStatsEntry 10 }

 dot3OamVariableResponseTx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Variable Response OAMPDUs

 transmitted on this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.30."

 ::= { dot3OamStatsEntry 11 }

 dot3OamVariableResponseRx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Variable Response OAMPDUs received

 on this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.31."

 ::= { dot3OamStatsEntry 12 }

 dot3OamOrgSpecificTx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Organization Specific OAMPDUs

 transmitted on this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.32."

 ::= { dot3OamStatsEntry 13 }

 dot3OamOrgSpecificRx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of Organization Specific OAMPDUs

 received on this interface.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.33."

 ::= { dot3OamStatsEntry 14 }

 dot3OamUnsupportedCodesTx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of OAMPDUs transmitted on this

 interface with an unsupported op-code.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.18."

 ::= { dot3OamStatsEntry 15 }

 dot3OamUnsupportedCodesRx OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of OAMPDUs received on this interface

 with an unsupported op-code.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.19."

 ::= { dot3OamStatsEntry 16 }

 dot3OamFramesLostDueToOam OBJECT-TYPE

 SYNTAX Counter32

 UNITS "frames"

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "A count of the number of frames that were dropped by the OAM

 multiplexer. Since the OAM multiplexer has multiple inputs

 and a single output, there may be cases where frames are

 dropped due to transmit resource contention. This counter is

 incremented whenever a frame is dropped by the OAM layer.

 Note that any Ethernet frame, not just OAMPDUs, may be dropped

 by the OAM layer. This can occur when an OAMPDU takes

 precedence over a 'normal' frame resulting in the 'normal'

 frame being dropped.

 When this counter is incremented, no other counters in this

 MIB are incremented.

 Discontinuities of this counter can occur at re-initialization

 of the management system, and at other times as indicated by

 the value of the ifCounterDiscontinuityTime."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.46."

 ::= { dot3OamStatsEntry 17 }

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

 --

 -- Ethernet OAM Event Configuration group

 --

 dot3OamEventConfigTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot3OamEventConfigEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "Ethernet OAM includes the ability to generate and receive

 Event Notification OAMPDUs to indicate various link problems.

 This table contains the mechanisms to enable Event

 Notifications and configure the thresholds to generate the

 standard Ethernet OAM events. There is one entry in the table

 for every entry in dot3OamTable that supports OAM events

 (where dot3OamFunctionsSupported includes the eventSupport

 bit set). The values in the table are maintained across

 changes to dot3OamOperStatus.

 The standard threshold crossing events are:

 - Errored Symbol Period Event. Generated when the number of

 symbol errors exceeds a threshold within a given window

 defined by a number of symbols (for example, 1,000 symbols

 out of 1,000,000 had errors).

 - Errored Frame Period Event. Generated when the number of

 frame errors exceeds a threshold within a given window

 defined by a number of frames (for example, 10 frames out

 of 1000 had errors).

 - Errored Frame Event. Generated when the number of frame

 errors exceeds a threshold within a given window defined

 by a period of time (for example, 10 frames in 1 second

 had errors).

 - Errored Frame Seconds Summary Event. Generated when the

 number of errored frame seconds exceeds a threshold within

 a given time period (for example, 10 errored frame seconds

 within the last 100 seconds). An errored frame second is

 defined as a 1 second interval which had >0 frame errors.

 There are other events (dying gasp, critical events) that are

 not threshold crossing events but that can be

 enabled/disabled via this table."

 ::= { dot3OamObjects 5 }

 dot3OamEventConfigEntry OBJECT-TYPE

 SYNTAX Dot3OamEventConfigEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "Entries are automatically created and deleted from this

 table, and exist whenever the OAM entity supports Ethernet OAM

 events (as indicated by the eventSupport bit in

 dot3OamFunctionsSuppported). Values in the table are

 maintained across changes to the value of dot3OamOperStatus.

 Event configuration controls when the local management entity

 sends Event Notification OAMPDUs to its OAM peer, and when

 certain event flags are set or cleared in OAMPDUs."

 INDEX { ifIndex }

 ::= { dot3OamEventConfigTable 1 }

 Dot3OamEventConfigEntry ::=

 SEQUENCE {

 dot3OamErrSymPeriodWindowHi Unsigned32,

 dot3OamErrSymPeriodWindowLo Unsigned32,

 dot3OamErrSymPeriodThresholdHi Unsigned32,

 dot3OamErrSymPeriodThresholdLo Unsigned32,

 dot3OamErrSymPeriodEvNotifEnable TruthValue,

 dot3OamErrFramePeriodWindow Unsigned32,

 dot3OamErrFramePeriodThreshold Unsigned32,

 dot3OamErrFramePeriodEvNotifEnable TruthValue,

 dot3OamErrFrameWindow Unsigned32,

 dot3OamErrFrameThreshold Unsigned32,

 dot3OamErrFrameEvNotifEnable TruthValue,

 dot3OamErrFrameSecsSummaryWindow Integer32,

 dot3OamErrFrameSecsSummaryThreshold Integer32,

 dot3OamErrFrameSecsEvNotifEnable TruthValue,

 dot3OamDyingGaspEnable TruthValue,

 dot3OamCriticalEventEnable TruthValue

 }

 dot3OamErrSymPeriodWindowHi OBJECT-TYPE

 SYNTAX Unsigned32

 UNITS "2^32 symbols"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The two objects dot3OamErrSymPeriodWindowHi and

 dot3OamErrSymPeriodLo together form an unsigned 64-bit

 integer representing the number of symbols over which this

 threshold event is defined. This is defined as

 dot3OamErrSymPeriodWindow = ((2^32)\*dot3OamErrSymPeriodWindowHi)

 + dot3OamErrSymPeriodWindowLo

 If dot3OamErrSymPeriodThreshold symbol errors occur within a

 window of dot3OamErrSymPeriodWindow symbols, an Event

 Notification OAMPDU should be generated with an Errored Symbol

 Period Event TLV indicating that the threshold has been

 crossed in this window.

 The default value for dot3OamErrSymPeriodWindow is the number

 of symbols in one second for the underlying Physical Layer."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.34"

 ::= { dot3OamEventConfigEntry 1 }

 dot3OamErrSymPeriodWindowLo OBJECT-TYPE

 SYNTAX Unsigned32

 UNITS "symbols"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The two objects dot3OamErrSymPeriodWindowHi and

 dot3OamErrSymPeriodWindowLo together form an unsigned 64-bit

 integer representing the number of symbols over which this

 threshold event is defined. This is defined as

 dot3OamErrSymPeriodWindow = ((2^32)\*dot3OamErrSymPeriodWindowHi)

 + dot3OamErrSymPeriodWindowLo

 If dot3OamErrSymPeriodThreshold symbol errors occur within a

 window of dot3OamErrSymPeriodWindow symbols, an Event

 Notification OAMPDU should be generated with an Errored Symbol

 Period Event TLV indicating that the threshold has been

 crossed in this window.

 The default value for dot3OamErrSymPeriodWindow is the number

 of symbols in one second for the underlying Physical Layer."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.34"

 ::= { dot3OamEventConfigEntry 2 }

 dot3OamErrSymPeriodThresholdHi OBJECT-TYPE

 SYNTAX Unsigned32

 UNITS "2^32 symbols"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The two objects dot3OamErrSymPeriodThresholdHi and

 dot3OamErrSymPeriodThresholdLo together form an unsigned

 64-bit integer representing the minimum number of symbol errors

 occuring within a given window to cause an Errored Symbol Period Event.

 This is defined as

 dot3OamErrSymPeriodThreshold =

 ((2^32) \* dot3OamErrSymPeriodThresholdHi)

 + dot3OamErrSymPeriodThresholdLo

 If dot3OamErrSymPeriodThreshold symbol errors occur within a

 window of dot3OamErrSymPeriodWindow symbols, an Event

 Notification OAMPDU is generated with an Errored Symbol

 Period Event TLV indicating that the threshold has been

 crossed in this window.

 The default value for dot3OamErrSymPeriodThreshold is one

 symbol errors. If the threshold value is zero, then an Event

 Notification OAMPDU is sent periodically (at the end of every

 window). This can be used as an asynchronous notification to

 the peer OAM entity of the statistics related to this

 threshold crossing alarm."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.34"

 ::= { dot3OamEventConfigEntry 3 }

 dot3OamErrSymPeriodThresholdLo OBJECT-TYPE

 SYNTAX Unsigned32

 UNITS "symbols"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The two objects dot3OamErrSymPeriodThresholdHi and

 dot3OamErrSymPeriodThresholdLo together form an unsigned

 64-bit integer representing the minimum number of symbol errors

 occuring within a given window to cause an Errored Symbol Period Event.

 This is defined as

 dot3OamErrSymPeriodThreshold =

 ((2^32) \* dot3OamErrSymPeriodThresholdHi)

 + dot3OamErrSymPeriodThresholdLo

 If dot3OamErrSymPeriodThreshold symbol errors occur within a

 window of dot3OamErrSymPeriodWindow symbols, an Event

 Notification OAMPDU is generated with an Errored Symbol

 Period Event TLV indicating that the threshold has been

 crossed in this window.

 The default value for dot3OamErrSymPeriodThreshold is one

 symbol error. If the threshold value is zero, then an Event

 Notification OAMPDU is sent periodically (at the end of every

 window). This can be used as an asynchronous notification to

 the peer OAM entity of the statistics related to this

 threshold crossing alarm."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.34"

 ::= { dot3OamEventConfigEntry 4 }

 dot3OamErrSymPeriodEvNotifEnable OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "If true, the OAM entity sends an Event Notification

 OAMPDU when an Errored Symbol Period Event occurs.

 The default value for this object is true for

 Ethernet-like interfaces that support OAM. If the OAM layer

 does not support Event Notifications (as indicated via the

 dot3OamFunctionsSupported attribute), this value is ignored."

 ::= { dot3OamEventConfigEntry 5 }

 dot3OamErrFramePeriodWindow OBJECT-TYPE

 SYNTAX Unsigned32

 UNITS "frames"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The number of frames over which the threshold is defined.

 The default value of the window is the number of minimum size

 Ethernet frames that can be received over the Physical Layer

 in one second.

 If dot3OamErrFramePeriodThreshold frame errors occur within a

 window of dot3OamErrFramePeriodWindow frames, an Event

 Notification OAMPDU should be generated with an Errored Frame

 Period Event TLV indicating that the threshold has been

 crossed in this window."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.38"

 ::= { dot3OamEventConfigEntry 6 }

 dot3OamErrFramePeriodThreshold OBJECT-TYPE

 SYNTAX Unsigned32

 UNITS "frames"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The minimum number of frame errors that cause an Errored Frame

 Period Event. The default value is one frame error. If the

 threshold value is zero, then an Event Notification OAMPDU is

 sent periodically (at the end of every window). This can be

 used as an asynchronous notification to the peer OAM entity of

 the statistics related to this threshold crossing alarm.

 If dot3OamErrFramePeriodThreshold frame errors occur within a

 window of dot3OamErrFramePeriodWindow frames, an Event

 Notification OAMPDU is generated with an Errored Frame

 Period Event TLV indicating that the threshold has been

 crossed in this window."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.38"

 ::= { dot3OamEventConfigEntry 7 }

 dot3OamErrFramePeriodEvNotifEnable OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "If true, the OAM entity should send an Event Notification

 OAMPDU when an Errored Frame Period Event occurs.

 By default, this object should have the value true for

 Ethernet-like interfaces that support OAM. If the OAM layer

 does not support Event Notifications (as indicated via the

 dot3OamFunctionsSupported attribute), this value is ignored."

 ::= { dot3OamEventConfigEntry 8 }

 dot3OamErrFrameWindow OBJECT-TYPE

 SYNTAX Unsigned32

 UNITS "tenths of a second"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The amount of time (in 100 ms increments) over which the

 threshold is defined. The default value is 10 (1 second).

 If dot3OamErrFrameThreshold frame errors occur within a window

 of dot3OamErrFrameWindow seconds (measured in tenths of

 seconds), an Event Notification OAMPDU should be generated

 with an Errored Frame Event TLV indicating that the threshold

 has been crossed in this window."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.36"

 DEFVAL { 10 }

 ::= { dot3OamEventConfigEntry 9 }

 dot3OamErrFrameThreshold OBJECT-TYPE

 SYNTAX Unsigned32

 UNITS "frames"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The minimum number of frame errors that cause an Errored Frame

 Event. The default value is one frame error. If the

 threshold value is zero, then an Event Notification OAMPDU is

 sent periodically (at the end of every window). This can be

 used as an asynchronous notification to the peer OAM entity of

 the statistics related to this threshold crossing alarm.

 If dot3OamErrFrameThreshold frame errors occur within a window

 of dot3OamErrFrameWindow (in tenths of seconds), an Event

 Notification OAMPDU is generated with an Errored Frame

 Event TLV indicating the threshold has been crossed in this

 window."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.36"

 DEFVAL { 1 }

 ::= { dot3OamEventConfigEntry 10 }

 dot3OamErrFrameEvNotifEnable OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "If true, the OAM entity should send an Event Notification

 OAMPDU when an Errored Frame Event occurs.

 By default, this object should have the value true for

 Ethernet-like interfaces that support OAM. If the OAM layer

 does not support Event Notifications (as indicated via the

 dot3OamFunctionsSupported attribute), this value is ignored."

 DEFVAL { true }

 ::= { dot3OamEventConfigEntry 11 }

 dot3OamErrFrameSecsSummaryWindow OBJECT-TYPE

 SYNTAX Integer32 (100..9000)

 UNITS "tenths of a second"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The amount of time (in 100 ms intervals) over which the

 threshold is defined. The default value is 100 (10 seconds).

 If dot3OamErrFrameSecsSummaryThreshold frame errors occur

 within a window of dot3OamErrFrameSecsSummaryWindow (in tenths

 of seconds), an Event Notification OAMPDU should be generated

 with an Errored Frame Seconds Summary Event TLV indicating

 that the threshold has been crossed in this window."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.40"

 DEFVAL { 100 }

 ::= { dot3OamEventConfigEntry 12 }

 dot3OamErrFrameSecsSummaryThreshold OBJECT-TYPE

 SYNTAX Integer32 (1..900)

 UNITS "errored frame seconds"

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "The minimum number of errored frame seconds that cause an Errored

 Frame Seconds Summary Event. The default value is one errored frame

 second. If the threshold value is zero, then an Event

 Notification OAMPDU is sent periodically (at the end of every

 window). This can be used as an asynchronous notification to

 the peer OAM entity of the statistics related to this

 threshold crossing alarm.

 If dot3OamErrFrameSecsSummaryThreshold frame errors occur

 within a window of dot3OamErrFrameSecsSummaryWindow (in tenths

 of seconds), an Event Notification OAMPDU is generated

 with an Errored Frame Seconds Summary Event TLV indicating

 that the threshold has been crossed in this window."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.40"

 DEFVAL { 1 }

 ::= { dot3OamEventConfigEntry 13 }

 dot3OamErrFrameSecsEvNotifEnable OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "If true, the local OAM entity sends an Event Notification

 OAMPDU when an Errored Frame Seconds Event occurs.

 The default value for this object is true for

 Ethernet-like interfaces that support OAM. If the OAM layer

 does not support Event Notifications (as indicated via the

 dot3OamFunctionsSupported attribute), this value is ignored."

 DEFVAL { true }

 ::= { dot3OamEventConfigEntry 14 }

 dot3OamDyingGaspEnable OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "If true, the local OAM entity should attempt to indicate a

 dying gasp via the OAMPDU flags field to its peer OAM entity

 when a dying gasp event occurs. The exact definition of a

 dying gasp event is implementation dependent. If the system

 does not support dying gasp capability, setting this object

 has no effect, and reading the object returns 'false'.

 The default value for this object is true for

 Ethernet-like interfaces that support OAM. If the OAM layer

 does not support Event Notifications (as indicated via the

 dot3OamFunctionsSupported attribute), this value is ignored."

 DEFVAL { true }

 ::= { dot3OamEventConfigEntry 15 }

 dot3OamCriticalEventEnable OBJECT-TYPE

 SYNTAX TruthValue

 MAX-ACCESS read-write

 STATUS current

 DESCRIPTION

 "If true, the local OAM entity should attempt to indicate a

 critical event via the OAMPDU flags to its peer OAM entity

 when a critical event occurs. The exact definition of a

 critical event is implementation dependent. If the system

 does not support critical event capability, setting this

 object has no effect, and reading the object should

 result in 'false'.

 By default, this object should have the value true for

 Ethernet-like interfaces that support OAM. If the OAM layer

 does not support Event Notifications (as indicated via the

 dot3OamFunctionsSupported attribute), this value is ignored."

 DEFVAL { true }

 ::= { dot3OamEventConfigEntry 16 }

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

 --

 -- Ethernet OAM Event Log group

 --

 dot3OamEventLogTable OBJECT-TYPE

 SYNTAX SEQUENCE OF Dot3OamEventLogEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "This table records a history of the events that have occurred

 at the Ethernet OAM level. These events can include locally

 detected events, which may result in locally generated

 OAMPDUs, and remotely detected events, which are detected by

 the OAM peer entity and signaled to the local entity via

 Ethernet OAM. Ethernet OAM events can be signaled by Event

 Notification OAMPDUs or by the flags field in any OAMPDU.

 This table contains both threshold crossing events and

 non-threshold crossing events. The parameters for the

 threshold window, threshold value, and actual value

 (dot3OamEventLogWindowXX, dot3OamEventLogThresholdXX,

 dot3OamEventLogValue) are only applicable to threshold

 crossing events, and are returned as all F's (2^32 - 1) for

 non-threshold crossing events.

 Entries in the table are automatically created when such

 events are detected. The size of the table is implementation

 dependent. When the table reaches its maximum size, older

 entries are automatically deleted to make room for newer

 entries."

 ::= { dot3OamObjects 6 }

 dot3OamEventLogEntry OBJECT-TYPE

 SYNTAX Dot3OamEventLogEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An entry in the dot3OamEventLogTable. Entries are

 automatically created whenever Ethernet OAM events occur at

 the local OAM entity, and when Event Notification OAMPDUs are

 received at the local OAM entity (indicating that events have

 occurred at the peer OAM entity). The size of the table is

 implementation dependent, but when the table becomes full,

 older events are automatically deleted to make room for newer

 events. The table index dot3OamEventLogIndex increments for

 each new entry, and when the maximum value is reached, the

 value restarts at zero."

 INDEX { ifIndex, dot3OamEventLogIndex }

 ::= { dot3OamEventLogTable 1 }

 Dot3OamEventLogEntry ::=

 SEQUENCE {

 dot3OamEventLogIndex Unsigned32,

 dot3OamEventLogTimestamp TimeStamp,

 dot3OamEventLogOui EightOTwoOui,

 dot3OamEventLogType Unsigned32,

 dot3OamEventLogLocation INTEGER,

 dot3OamEventLogWindowHi Unsigned32,

 dot3OamEventLogWindowLo Unsigned32,

 dot3OamEventLogThresholdHi Unsigned32,

 dot3OamEventLogThresholdLo Unsigned32,

 dot3OamEventLogValue CounterBasedGauge64,

 dot3OamEventLogRunningTotal CounterBasedGauge64,

 dot3OamEventLogEventTotal Unsigned32

 }

 dot3OamEventLogIndex OBJECT-TYPE

 SYNTAX Unsigned32(1..4294967295)

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

 "An arbitrary integer for identifying individual events

 within the event log."

 ::= { dot3OamEventLogEntry 1 }

 dot3OamEventLogTimestamp OBJECT-TYPE

 SYNTAX TimeStamp

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The value of sysUpTime at the time of the logged event. For

 locally generated events, the time of the event can be

 accurately retrieved from sysUpTime. For remotely generated

 events, the time of the event is indicated by the reception of

 the Event Notification OAMPDU indicating that the event

 occurred on the peer. A system may attempt to adjust the

 timestamp value to more accurately reflect the time of the

 event at the peer OAM entity by using other information, such

 as that found in the timestamp found of the Event Notification

 TLVs, which provides an indication of the relative time

 between events at the peer entity."

 ::= { dot3OamEventLogEntry 2 }

 dot3OamEventLogOui OBJECT-TYPE

 SYNTAX EightOTwoOui

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The OUI of the entity defining the object type. All IEEE

 802.3 defined events (as appearing in IEEE Std 802.3 except for the

 Organizationally Unique Event TLVs) use the IEEE 802.3 OUI of

 0x0180C2. Organizations defining their own Event Notification

 TLVs include their OUI in the Event Notification TLV that

 gets reflected here."

 ::= { dot3OamEventLogEntry 3 }

 dot3OamEventLogType OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "The type of event that generated this entry in the event log.

 When the OUI is the IEEE 802.3 OUI of 0x0180C2, the following

 event types are defined:

 erroredSymbolEvent(1),

 erroredFramePeriodEvent(2),

 erroredFrameEvent(3),

 erroredFrameSecondsEvent(4),

 linkFault(256),

 dyingGaspEvent(257),

 criticalLinkEvent(258)

 The first four are considered threshold crossing events, as

 they are generated when a metric exceeds a given value within

 a specified window. The other three are not threshold

 crossing events.

 When the OUI is not 71874 (0x0180C2 in hex), then some other

 organization has defined the event space. If event subtyping

 is known to the implementation, it may be reflected here.

 Otherwise, this value should return all F's (2^32 - 1)."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.10 and 57.5.3."

 ::= { dot3OamEventLogEntry 4 }

 dot3OamEventLogLocation OBJECT-TYPE

 SYNTAX INTEGER { local(1), remote(2) }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "Whether this event occurred locally (local(1)), or was

 received from the OAM peer via Ethernet OAM (remote(2))."

 ::= { dot3OamEventLogEntry 5 }

 dot3OamEventLogWindowHi OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "If the event represents a threshold crossing event, the two

 objects dot3OamEventWindowHi and dot3OamEventWindowLo, form

 an unsigned 64-bit integer yielding the window over which the

 value was measured for the threshold crossing event (for

 example, 5, when 11 occurrences happened in 5 seconds while

 the threshold was 10). The two objects are combined as:

 dot3OamEventLogWindow = ((2^32) \* dot3OamEventLogWindowHi)

 + dot3OamEventLogWindowLo

 Otherwise, this value is returned as all F's (2^32 - 1) and

 adds no useful information."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.37 and 57.5.3.2."

 ::= { dot3OamEventLogEntry 6 }

 dot3OamEventLogWindowLo OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "If the event represents a threshold crossing event, the two

 objects dot3OamEventWindowHi and dot3OamEventWindowLo form an

 unsigned 64-bit integer yielding the window over which the

 value was measured for the threshold crossing event (for

 example, 5, when 11 occurrences happened in 5 seconds while

 the threshold was 10). The two objects are combined as:

 dot3OamEventLogWindow = ((2^32) \* dot3OamEventLogWindowHi)

 + dot3OamEventLogWindowLo

 Otherwise, this value is returned as all F's (2^32 - 1) and

 adds no useful information."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.37 and 57.5.3.2."

 ::= { dot3OamEventLogEntry 7 }

 dot3OamEventLogThresholdHi OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "If the event represents a threshold crossing event, the two

 objects dot3OamEventThresholdHi and dot3OamEventThresholdLo

 form an unsigned 64-bit integer yielding the value that was

 crossed for the threshold crossing event (for example, 10,

 when 11 occurrences happened in 5 seconds while the threshold

 was 10). The two objects are combined as:

 dot3OamEventLogThreshold = ((2^32) \* dot3OamEventLogThresholdHi)

 + dot3OamEventLogThresholdLo

 Otherwise, this value is returned as all F's (2^32 -1) and

 adds no useful information."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.37 and 57.5.3.2."

 ::= { dot3OamEventLogEntry 8 }

 dot3OamEventLogThresholdLo OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "If the event represents a threshold crossing event, the two

 objects dot3OamEventThresholdHi and dot3OamEventThresholdLo

 form an unsigned 64-bit integer yielding the value that was

 crossed for the threshold crossing event (for example, 10,

 when 11 occurrences happened in 5 seconds while the threshold

 was 10). The two objects are combined as:

 dot3OamEventLogThreshold = ((2^32) \* dot3OamEventLogThresholdHi)

 + dot3OamEventLogThresholdLo

 Otherwise, this value is returned as all F's (2^32 - 1) and

 adds no useful information."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.37 and 57.5.3.2."

 ::= { dot3OamEventLogEntry 9 }

 dot3OamEventLogValue OBJECT-TYPE

 SYNTAX CounterBasedGauge64

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "If the event represents a threshold crossing event, this

 value indicates the value of the parameter within the given

 window that generated this event (for example, 11, when 11

 occurrences happened in 5 seconds while the threshold was 10).

 Otherwise, this value is returned as all F's

 (2^64 - 1) and adds no useful information."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.37 and 57.5.3.2."

 ::= { dot3OamEventLogEntry 10 }

 dot3OamEventLogRunningTotal OBJECT-TYPE

 SYNTAX CounterBasedGauge64

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "Each Event Notification TLV contains a running total of the

 number of times an event has occurred, as well as the number

 of times an Event Notification for the event has been

 transmitted. For non-threshold crossing events, the number of

 events (dot3OamLogRunningTotal) and the number of resultant

 Event Notifications (dot3OamLogEventTotal) should be

 identical.

 For threshold crossing events, since multiple occurrences may

 be required to cross the threshold, these values are likely

 different. This value represents the total number of times

 this event has happened since the last reset (for example,

 3253, when 3253 symbol errors have occurred since the last

 reset, which has resulted in 51 symbol error threshold

 crossing events since the last reset)."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.37 and 57.5.3.2."

 ::= { dot3OamEventLogEntry 11 }

 dot3OamEventLogEventTotal OBJECT-TYPE

 SYNTAX Unsigned32

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 "Each Event Notification TLV contains a running total of the

 number of times an event has occurred, as well as the number

 of times an Event Notification for the event has been

 transmitted. For non-threshold crossing events, the number of

 events (dot3OamLogRunningTotal) and the number of resultant

 Event Notifications (dot3OamLogEventTotal) should be

 identical.

 For threshold crossing events, since multiple occurrences may

 be required to cross the threshold, these values are likely

 different. This value represents the total number of times

 one or more of these occurrences have resulted in an Event

 Notification (for example, 51 when 3253 symbol errors have

 occurred since the last reset, which has resulted in 51 symbol

 error threshold crossing events since the last reset)."

 REFERENCE "IEEE Std 802.3, 30.3.6.1.37 and 57.5.3.2."

 ::= { dot3OamEventLogEntry 12 }

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

 --

 -- Ethernet OAM Notifications

 --

 dot3OamThresholdEvent NOTIFICATION-TYPE

 OBJECTS { dot3OamEventLogTimestamp,

 dot3OamEventLogOui,

 dot3OamEventLogType,

 dot3OamEventLogLocation,

 dot3OamEventLogWindowHi,

 dot3OamEventLogWindowLo,

 dot3OamEventLogThresholdHi,

 dot3OamEventLogThresholdLo,

 dot3OamEventLogValue,

 dot3OamEventLogRunningTotal,

 dot3OamEventLogEventTotal

 }

 STATUS current

 DESCRIPTION

 "A dot3OamThresholdEvent notification is sent when a local or

 remote threshold crossing event is detected. A local

 threshold crossing event is detected by the local entity,

 while a remote threshold crossing event is detected by the

 reception of an Ethernet OAM Event Notification OAMPDU

 that indicates a threshold event.

 This notification should not be sent more than once per

 second.

 The OAM entity can be derived from extracting the ifIndex from

 the variable bindings. The objects in the notification

 correspond to the values in a row instance in the

 dot3OamEventLogTable.

 The management entity should periodically check

 dot3OamEventLogTable to detect any missed events."

 ::= { dot3OamNotifications 1 }

 dot3OamNonThresholdEvent NOTIFICATION-TYPE

 OBJECTS { dot3OamEventLogTimestamp,

 dot3OamEventLogOui,

 dot3OamEventLogType,

 dot3OamEventLogLocation,

 dot3OamEventLogEventTotal

 }

 STATUS current

 DESCRIPTION

 "A dot3OamNonThresholdEvent notification is sent when a local

 or remote non-threshold crossing event is detected. A local

 event is detected by the local entity, while a remote event is

 detected by the reception of an Ethernet OAM Event

 Notification OAMPDU that indicates a non-threshold crossing

 event.

 This notification should not be sent more than once per

 second.

 The OAM entity can be derived from extracting the ifIndex from

 the variable bindings. The objects in the notification

 correspond to the values in a row instance of the

 dot3OamEventLogTable.

 The management entity should periodically check

 dot3OamEventLogTable to detect any missed events."

 ::= { dot3OamNotifications 2 }

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

 --

 -- Conformance statements

 --

 dot3OamGroups OBJECT IDENTIFIER ::= { dot3OamConformance 1 }

 dot3OamCompliances OBJECT IDENTIFIER ::= { dot3OamConformance 2 }

 -- Compliance statements

 dot3OamCompliance MODULE-COMPLIANCE

 STATUS current

 DESCRIPTION "The compliance statement for managed entities

 supporting OAM on Ethernet-like interfaces."

 MODULE -- this module

 MANDATORY-GROUPS { dot3OamControlGroup,

 dot3OamPeerGroup,

 dot3OamStatsBaseGroup

 }

 GROUP dot3OamLoopbackGroup

 DESCRIPTION

 "This group is mandatory for all IEEE 802.3 OAM

 implementations that support loopback functionality."

 GROUP dot3OamErrSymbolPeriodEventGroup

 DESCRIPTION

 "This group is mandatory for all IEEE 802.3 OAM

 implementations that support event functionality."

 GROUP dot3OamErrFramePeriodEventGroup

 DESCRIPTION

 "This group is mandatory for all IEEE 802.3 OAM

 implementations that support event functionality."

 GROUP dot3OamErrFrameEventGroup

 DESCRIPTION

 "This group is mandatory for all IEEE 802.3 OAM

 implementations that support event functionality."

 GROUP dot3OamErrFrameSecsSummaryEventGroup

 DESCRIPTION

 "This group is mandatory for all IEEE 802.3 OAM

 implementations that support event functionality."

 GROUP dot3OamFlagEventGroup

 DESCRIPTION

 "This group is optional for all IEEE 802.3 OAM

 implementations. The ability to send critical events or dying

 gasp events is not required in any system."

 GROUP dot3OamEventLogGroup

 DESCRIPTION

 "This group is optional for all IEEE 802.3 OAM

 implementations. Entries in this table are dependent on what

 event functionality is supported in the local OAM

 implementation. At least one type of event shall be supported

 for entries to appear in this table."

 GROUP dot3OamNotificationGroup

 DESCRIPTION

 "This group is optional for all IEEE 802.3 OAM

 implementations. Since the information in the notifications

 is dependent on the dot3OamEventLogTable, that table shall be

 implemented for notifications."

 ::= { dot3OamCompliances 1}

 dot3OamControlGroup OBJECT-GROUP

 OBJECTS { dot3OamAdminState,

 dot3OamOperStatus,

 dot3OamMode,

 dot3OamMaxOamPduSize,

 dot3OamConfigRevision,

 dot3OamFunctionsSupported

 }

 STATUS current

 DESCRIPTION

 "A collection of objects providing the abilities,

 configuration, and status of an Ethernet OAM entity."

 ::= { dot3OamGroups 1 }

 dot3OamPeerGroup OBJECT-GROUP

 OBJECTS { dot3OamPeerMacAddress,

 dot3OamPeerVendorOui,

 dot3OamPeerVendorInfo,

 dot3OamPeerMode,

 dot3OamPeerFunctionsSupported,

 dot3OamPeerMaxOamPduSize,

 dot3OamPeerConfigRevision

 }

 STATUS current

 DESCRIPTION

 "A collection of objects providing the abilities,

 configuration, and status of a peer Ethernet OAM entity."

 ::= { dot3OamGroups 2 }

 dot3OamStatsBaseGroup OBJECT-GROUP

 OBJECTS { dot3OamInformationTx,

 dot3OamInformationRx,

 dot3OamUniqueEventNotificationTx,

 dot3OamUniqueEventNotificationRx,

 dot3OamDuplicateEventNotificationTx,

 dot3OamDuplicateEventNotificationRx,

 dot3OamLoopbackControlTx,

 dot3OamLoopbackControlRx,

 dot3OamVariableRequestTx,

 dot3OamVariableRequestRx,

 dot3OamVariableResponseTx,

 dot3OamVariableResponseRx,

 dot3OamOrgSpecificTx,

 dot3OamOrgSpecificRx,

 dot3OamUnsupportedCodesTx,

 dot3OamUnsupportedCodesRx,

 dot3OamFramesLostDueToOam

 }

 STATUS current

 DESCRIPTION

 "A collection of objects providing the statistics for the

 number of various transmit and receive events for OAM on an

 Ethernet-like interface. Note that all of these counters shall

 be supported even if the related function (as described in

 dot3OamFunctionsSupported) is not supported."

 ::= { dot3OamGroups 3 }

 dot3OamLoopbackGroup OBJECT-GROUP

 OBJECTS { dot3OamLoopbackStatus,

 dot3OamLoopbackIgnoreRx

 }

 STATUS current

 DESCRIPTION

 "A collection of objects for controlling the OAM remote

 loopback function."

 ::= { dot3OamGroups 4 }

 dot3OamErrSymbolPeriodEventGroup OBJECT-GROUP

 OBJECTS { dot3OamErrSymPeriodWindowHi,

 dot3OamErrSymPeriodWindowLo,

 dot3OamErrSymPeriodThresholdHi,

 dot3OamErrSymPeriodThresholdLo,

 dot3OamErrSymPeriodEvNotifEnable

 }

 STATUS current

 DESCRIPTION

 "A collection of objects for configuring the thresholds for an

 Errored Symbol Period Event.

 Each IEEE Std 802.3 defined Event Notification TLV has its own

 conformance group because each event can be implemented

 independently of any other."

 ::= { dot3OamGroups 5 }

 dot3OamErrFramePeriodEventGroup OBJECT-GROUP

 OBJECTS { dot3OamErrFramePeriodWindow,

 dot3OamErrFramePeriodThreshold,

 dot3OamErrFramePeriodEvNotifEnable

 }

 STATUS current

 DESCRIPTION

 "A collection of objects for configuring the thresholds for an

 Errored Frame Period Event.

 Each IEEE Std 802.3 defined Event Notification TLV has its own

 conformance group because each event can be implemented

 independently of any other."

 ::= { dot3OamGroups 6 }

 dot3OamErrFrameEventGroup OBJECT-GROUP

 OBJECTS { dot3OamErrFrameWindow,

 dot3OamErrFrameThreshold,

 dot3OamErrFrameEvNotifEnable

 }

 STATUS current

 DESCRIPTION

 "A collection of objects for configuring the thresholds for an

 Errored Frame Event.

 Each IEEE Std 802.3 defined Event Notification TLV has its own

 conformance group because each event can be implemented

 independently of any other."

 ::= { dot3OamGroups 7 }

 dot3OamErrFrameSecsSummaryEventGroup OBJECT-GROUP

 OBJECTS { dot3OamErrFrameSecsSummaryWindow,

 dot3OamErrFrameSecsSummaryThreshold,

 dot3OamErrFrameSecsEvNotifEnable

 }

 STATUS current

 DESCRIPTION

 "A collection of objects for configuring the thresholds for an

 Errored Frame Seconds Summary Event.

 Each IEEE Std 802.3 defined Event Notification TLV has its own

 conformance group because each event can be implemented

 independently of any other."

 ::= { dot3OamGroups 8 }

 dot3OamFlagEventGroup OBJECT-GROUP

 OBJECTS { dot3OamDyingGaspEnable,

 dot3OamCriticalEventEnable

 }

 STATUS current

 DESCRIPTION

 "A collection of objects for configuring the sending OAMPDUs

 with the critical event flag or dying gasp flag enabled."

 ::= { dot3OamGroups 9 }

 dot3OamEventLogGroup OBJECT-GROUP

 OBJECTS { dot3OamEventLogTimestamp,

 dot3OamEventLogOui,

 dot3OamEventLogType,

 dot3OamEventLogLocation,

 dot3OamEventLogWindowHi,

 dot3OamEventLogWindowLo,

 dot3OamEventLogThresholdHi,

 dot3OamEventLogThresholdLo,

 dot3OamEventLogValue,

 dot3OamEventLogRunningTotal,

 dot3OamEventLogEventTotal

 }

 STATUS current

 DESCRIPTION

 "A collection of objects for configuring the thresholds for an

 Errored Frame Seconds Summary Event and maintaining the event

 information."

 ::= { dot3OamGroups 10 }

 dot3OamNotificationGroup NOTIFICATION-GROUP

 NOTIFICATIONS {

 dot3OamThresholdEvent,

 dot3OamNonThresholdEvent

 }

 STATUS current

 DESCRIPTION

 "A collection of notifications used by Ethernet OAM to signal

 to a management entity that local or remote events have

 occurred on a specified Ethernet link."

 ::= { dot3OamGroups 11 }

 END