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 }

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

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-- 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

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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