

Managed Objects for the Ethernet Passive Optical Networks
<[draft-ietf-hubmib-efm-epon-mib-00.txt](#)>

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Abstract

This document defines a portion of the Management Information Base (MIB) for use with network management protocols in TCP/IP based Internets. In particular, it defines objects for managing devices and interfaces that conform to the Ethernet Passive Optical Networks (EPON) standards as defined in [[802.3ah](#)]. The document contains a list of management entities based on the registers defined in the [[802.3ah](#)] Annex 30A and mainly partitioned accordingly.

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Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL", when used in the guidelines in this memo, are to be interpreted as described in [RFC 2119](#) [[RFC2119](#)].

1 The Internet-Standard Management Framework

For a detailed overview of the documents that describe the current Internet-Standard Management Framework, please refer to [section 7](#) of RFC [3410](#) [[RFC3410](#)].

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. MIB objects are generally accessed through the Simple Network Management Protocol (SNMP). Objects in the MIB are defined using the mechanisms defined in the Structure of Management Information (SMI). This memo specifies a MIB module that is compliant to the SMIV2, which is described in STD 58, RFC [2578](#) [[RFC2578](#)], STD 58, [RFC 2579](#) [[RFC2579](#)] and STD 58, RFC [2580](#) [[RFC2580](#)].

2 Overview

This document defines a portion of the Management Information Base (MIB) for use with network management protocols in TCP/IP based Internets. In particular, it defines objects for managing devices and interfaces that conform to the Ethernet Passive Optical Networks (EPON) standards as defined in [[802.3ah](#)]. The document contains a list of management entities based on the registers defined in the [[802.3ah](#)] Annex 30A and mainly partitioned accordingly.

The document also contains a device group section defining the MIBs for EPON from a device perspective, which are connected directly to the IEEE 802.3ah layer2 specifications.

The document also provides amendments to the 802.3 MAU MIBs documents for the EFM device type addition.

[2.1](#) Relationship to the Interfaces MIB, the Ethernet-like Interfaces MIB and the MAU MIB

EFM EPON interfaces require implementation of Interfaces MIB [[RFC2863](#)], Ethernet-like Interfaces MIB [[RFC2665](#)] and MAU-MIB [[RFC3636](#)].

The MIBs defined in this document are an extension for these MIBs. For instance defining dot3MpcpRemoteMACAddress only while assuming the local MAC address attribute is already defined in [[RFC 2665](#)].

[2.2](#) Relationship to the Generic EFM MIB

EFM EPON interfaces require implementation of Generic EFM MIB [draft-ietf-hubmib-efm-mib]. This document defines general EFM attributes and

managed objects that are referred in the document.

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3 MIB structure

This document include two MIBs the first is the EFM EPON MIBs and the second is the EPON device MIBs.

The EFM EPON MIBs defines the objects used for configuration and description of the [\[802.3ah\]](#) P2MP section.

These MIB objects are included of three MIB groups.

The MPCP MIBs definition ù MIBs related to [\[802.3ah\]](#) clause 64 Multi Point Control Protocol attributes. In this MIB group:

The dot3MpcpTable defines the objects used for the configuration and description of the status of MPCP compliant interfaces.

The dot3MpcpStatTable defines the statistics group for MPCP compliant interfaces.

The OMPEmulation MIBs definitions ù MIBs related to [\[802.3ah\]](#) clause 65 point to point emulation attributes. In this MIB group:

The dot3OmpEmulationTable defines the objects used for the configuration and description of the status of OMPEmulation compliant interfaces.

The dot3OmpEmulationStatTable defines the statistics group for OMPEmulation compliant interfaces.

The MAU MIBs definition including MAU type definitions and EPON MAU managed object related to [\[802.3ah\]](#) clause 60 and clause 65.

The dot3EponMauTable defines the objects used for the configuration and description of the status of MAU EPON compliant interfaces.

The dot3EponMauType defines the Type group for [\[802.3\]](#) EPON MAUs.

Editor note - The MAU Type object should probably be with other [802.3](#) MAU type objects [\[RFC 3636\]](#).

The EPON Device MIBs defines the objects used for configuration and description of management objects for EPON compliant Devices.

The eponDeviceTable defines the objects used for the configuration and description of the EPON compliant devices.

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4 Definitions The EFM EPON MIB (See [section 30.2.5](#) in 802.3ah draft for details):

DOT3-EFM-EPON-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY, mib-2, OBJECT-TYPE, Counter32,
Integer32, OBJECT-IDENTITY
FROM SNMPv2-SMI
TruthValue, MacAddress
FROM SNMPv2-TC
ifIndex
FROM IF-MIB
MODULE-COMPLIANCE, OBJECT-GROUP
FROM SNMPv2-CONF
;

efmeponMib MODULE-IDENTITY

LAST-UPDATED "200312290000Z" -- December 29, 2003

ORGANIZATION "IETF Ethernet Interfaces and Hub MIB
Working Group"

CONTACT-INFO

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<http://www.ietf.org/html.charters/hubmib->

charter.html

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DESCRIPTION

"The objects in this MIB module are used to manage

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the Ethernet in the First Mile (EFM) Multi Point Control
Protocol (MPCP) Interfaces as defined in IEEE Draft
P802.3ah/D3.0 clause 64,65.

The following reference is used throughout this MIB module:

[802.3ah] refers to:

IEEE Draft P802.3ah/D3.0: 'Draft amendment to -
Information technology - Telecommunications and
information exchange between systems - Local and
metropolitan area networks - Specific requirements -
Part 3: Carrier sense multiple access with collision
detection (CSMA/CD) access method and physical layer
specifications - Media Access Control Parameters,
Physical Layers and Management Parameters for subscriber
access networks', 07 October 2003.

Of particular interest are Clause 64(MPCP) 65(P2mP RS) and 60
(PON PMDs). Clause 30, 'Management', and Clause 45, 'Management
Data Input/Output (MDIO) Interface'.

Copyright (C) The Internet Society (2003). This version
of this MIB module is part of XXXX see the RFC
itself for full legal notices."

-- Editor's Note: Replace XXXX with the actual RFC number
-- assigned by RFC Editor and remove this note

REVISION "200312110000Z" -- December 11, 2003
DESCRIPTION "Initial version, published as RFC XXXX."

::= { mib-2 XXX }

-- Editor's Note: Replace XXX with a real OID once it is
-- assigned by IANA and remove this note.

4.1 MPCP MIBs definitions ([[802.3ah](#)] clause 30.3.5)

-- Editor's note: Description in attributes with References should be
-- minimized in later versions

dot3MpcpMIB OBJECT IDENTIFIER ::= { dot3EfmeponMIB 1}

dot3MpcpObjects OBJECT IDENTIFIER ::= { dot3MpcpMIB 1}

dot3MpcpConformance OBJECT IDENTIFIER ::= { dot3MpcpMIB 2}

dot3MpcpTable OBJECT-TYPE

SYNTAX SEQUENCE OF Dot3MpcpEntry

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MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Table for dot3 MPCP MIBs."

::= { dot3MpcpObjects 1 }

dot3MpcpEntry OBJECT-TYPE

SYNTAX Dot3MpcpEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"An entry in the dot3 MPCP MIBs table."

INDEX { ifIndex }

::= { dot3MpcpTable 1 }

Dot3MpcpEntry ::=

SEQUENCE {

dot3MpcpAdminState	TruthValue,
dot3MpcpMode	INTEGER,
dot3MpcpLinkID	INTEGER,
dot3MpcpRemoteMACAddress	MacAddress,
dot3MpcpRegistrationState	INTEGER,
dot3MpcpTransmitElapsed	INTEGER,
dot3MpcpReceiveElapsed	INTEGER,
dot3MpcpRoundTripTime	INTEGER,
dot3MpcpMaximumPendingGrants	INTEGER,
dot3MPCPAdminControl	TruthValue,
dot3MpcpOnTime	INTEGER,
dot3MpcpOffTime	INTEGER,
dot3MpcpReceiverSettlingTime	INTEGER,
dot3MpcpCdrLockTime	INTEGER,
dot3MpcpReportThreshold	INTEGER

}

dot3MpcpAdminState OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This variable can be used to define the operational state of the Multi-Point MAC Control sublayer as defined in [\[802.3ah\]](#) clause 64. Selecting admin for an interface with Multi-Point MAC Control sublayer"

REFERENCE "[\[802.3ah\]](#), 30.3.5.1.1."

::= { dot3MpcpEntry 1 }

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dot3MpcpMode OBJECT-TYPE

SYNTAX INTEGER {

olt(1),

onu(2)

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This variable can be used to identify the operational state of the Multi-Point MAC Control sublayer as defined in [\[802.3ah\]](#) clause 64. Selecting olt for an OLT (server) mode and onu for an ONU (client) mode."

REFERENCE "[\[802.3ah\]](#), 30.3.5.1.2."

::= { dot3MpcpEntry 2 }

dot3MpcpLinkID OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only value that identifies the Logical Link identity (LLID) associated with the MAC port as specified in [\[802.3ah\]](#) clause 65.1.2.3.2."

REFERENCE "[\[802.3ah\]](#), 30.3.5.1.5."

::= { dot3MpcpEntry 3 }

dot3MpcpRemoteMACAddress OBJECT-TYPE

SYNTAX MacAddress

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only value that identifies the source_address parameter of the last MPCPDUs passed to the MAC Control. This value is updated on reception of a valid frame with (1) a destination Field equal to the reserved multicast address for MAC Control specified in [\[802.3ah\]](#) Annex 31A, (2) lengthOrType field value equal to the reserved Type for MAC Control as specified in [\[802.3ah\]](#) Annex 31A. (3) an MPCP subtype value equal to the subtype reserved for MPCP as specified in [\[802.3ah\]](#) Annex

31A."

REFERENCE "[[802.3ah](#)], 30.3.5.1.6."
::= { dot3MpcpEntry 4 }

dot3MpcpRegistrationState OBJECT-TYPE

SYNTAX INTEGER {
 unregistered(1),
 registering(2),
 registered(3)
}

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MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only value that identifies the operational state of the Multi-Point MAC Control sublayer as defined in [[802.3ah](#)] clause 64. When this attribute has the enumeration 'unregistered' the interface may be used for registering a link partner. When this attribute has the enumeration 'registering' the interface is in the process of registering a link-partner. When this attribute has the enumeration 'registered' the interface has an established link-partner."

REFERENCE "[[802.3ah](#)], 30.3.5.1.7."
::= { dot3MpcpEntry 5 }

dot3MpcpTransmitElapsed OBJECT-TYPE

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only value that reports the interval from last MPCP frame transmission in increments of 16ns. The value returned shall be (interval from last MPCP frame transmission in ns)/16, where this value exceeds (2³²-1) the value (2³²-1) shall be returned."

REFERENCE "[[802.3ah](#)], 30.3.5.1.8."
::= { dot3MpcpEntry 6 }

dot3MpcpReceiveElapsed OBJECT-TYPE

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only value that reports the interval from last MPCP frame reception in increments of 16ns. The value returned shall be (interval from last MPCP last MPCP frame reception in ns)/16, where this value exceeds (2³²-1) the value (2³²-1) shall be returned."

REFERENCE "[[802.3ah](#)], 30.3.5.1.9."

::= { dot3MpcpEntry 7 }

dot3MpcpRoundTripTime OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only value that reports the MPCP round trip time in increments of 16ns. The value returned shall be (round trip time in ns)/16, where this value exceeds (2¹⁶-1) the value (2¹⁶-1) shall be returned."

REFERENCE "[[802.3ah](#)], 30.3.5.1.10."

::= { dot3MpcpEntry 8 }

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dot3MpcpMaximumPendingGrants OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A read-only value that indicates the maximum number of grants an ONU can store. The maximum number of grants an ONU can store has a range of [0 to 255](#)."

REFERENCE "[[802.3ah](#)], 30.3.5.1.14."

::= { dot3MpcpEntry 9 }

dot3MPCPAdminControl OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This variable can be used to define the operational state of the Multi-Point MAC Control sublayer as defined in [[802.3ah](#)] clause 64. Selecting admin for an interface with Multi-Point MAC Control sublayer."

REFERENCE "[[802.3ah](#)], 30.3.5.2.1."

::= { dot3MpcpEntry 10 }

dot3MpcpOnTime OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only value that reports the 'on time' for a grant burst in increments of 16ns as defined in [[802.3ah](#)] 60,64. The value returned shall be (on time ns)/16, where this value exceeds (2³²-1) the value (2³²-1) shall be returned."

::= { dot3MpcpEntry 11 }

dot3MpcpOffTime OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only value that reports the 'off time' for a grant burst in increments of 16ns as defined in [802.3ah] 60,64. The value returned shall be (off time ns)/16, where this value exceeds (2³²-1) the value (2³²-1) shall be returned."

::= { dot3MpcpEntry 12 }

dot3MpcpReceiverSettlingTime OBJECT-TYPE

SYNTAX INTEGER

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MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only value that reports the 'Receiver Settling time' for an OLT receiver in increments of 16ns as defined in [802.3ah] 60,64. The value returned shall be (Receiver Settling time ns)/16, where this value exceeds (2³²-1) the value (2³²-1) shall be returned."

::= { dot3MpcpEntry 13 }

dot3MpcpCdrLockTime OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only value that reports the 'CDR lock time' for an OLT receiver in increments of 16ns as defined in [802.3ah] 60,64,65. The value returned shall be (CDR lock time ns)/16, where this value exceeds (2³²-1) the value (2³²-1) shall be returned."

::= { dot3MpcpEntry 14 }

dot3MpcpReportThreshold OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"A set of 8 integers, for each LLID, that defines the threshold reporting for each Queue in the REPORT message, as defined in [802.3ah] 64. The value returned shall be in 2 octets increments."

::= { dot3MpcpEntry 15 }

dot3MpcpTxFramesQueue7	Counter32,
dot3MpcpRxFramesQueue0	Counter32,
dot3MpcpRxFramesQueue1	Counter32,
dot3MpcpRxFramesQueue2	Counter32,
dot3MpcpRxFramesQueue3	Counter32,
dot3MpcpRxFramesQueue4	Counter32,
dot3MpcpRxFramesQueue5	Counter32,
dot3MpcpRxFramesQueue6	Counter32,
dot3MpcpRxFramesQueue7	Counter32,
dot3MpcpDroppedFramesQueue0	Counter32,
dot3MpcpDroppedFramesQueue1	Counter32,
dot3MpcpDroppedFramesQueue2	Counter32,
dot3MpcpDroppedFramesQueue3	Counter32,
dot3MpcpDroppedFramesQueue4	Counter32,
dot3MpcpDroppedFramesQueue5	Counter32,
dot3MpcpDroppedFramesQueue6	Counter32,
dot3MpcpDroppedFramesQueue7	Counter32
}	

dot3MpcpMACCtrlFramesTransmitted OBJECT-TYPE

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SYNTAX Counter32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"A count of MPCP frames passed to the MAC sublayer for transmission. This counter is incremented when a MA_CONTROL.request service primitive is generated within the MAC control sublayer with an opcode indicating a MPCP frame."

REFERENCE "[[802.3ah](#)], 30.3.5.1.3."
 ::= { dot3MpcpStatEntry 1 }

dot3MpcpMACCtrlFramesReceived OBJECT-TYPE

SYNTAX Counter32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"A count of MPCP frames passed by the MAC sublayer to the MAC Control sublayer. This counter is incremented when a ReceiveFrame function call returns a valid frame with: (1) a lengthOrType field value equal to the reserved Type for 802.3_MAC_Control as specified in 31.4.1.3, and (2) an opcode indicating a MPCP frame."

REFERENCE "[[802.3ah](#)], 30.3.5.1.4."
 ::= { dot3MpcpStatEntry 2 }

dot3MpcpDiscoveryWindowsSent OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of discovery windows generated. The counter is incremented by one for each generated discovery window."

REFERENCE "[[802.3ah](#)], 30.3.5.1.11."

::= { dot3MpcpStatEntry 3}

dot3MpcpRegistrationAttempts OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of number of attempts to perform registration. Increment the counter by one for each attempt to perform registration."

REFERENCE "[[802.3ah](#)], 30.3.5.1.12."

::= { dot3MpcpStatEntry 4}

dot3MpcpDiscoveryTimeout OBJECT-TYPE

SYNTAX Counter32

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MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of the number of times a discovery timeout occurs. Increment the counter by one for each discovery processing state-machine reset resulting from timeout waiting for message arrival."

REFERENCE "[[802.3ah](#)], 30.3.5.1.13."

::= { dot3MpcpStatEntry 5}

dot3MpcpTxRegRequest OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of the number of times a REGISTER_REQ MPCP frames transmission occurs. Increment the counter by one for each REGISTER_REQ MPCP frame transmitted as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU"

::= { dot3MpcpStatEntry 6}

dot3MpcpRxRegRequest OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the number of times a REGISTER_REQ MPCP frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each REGISTER_REQ MPCP frame received for each LLID as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU and for an OLT"

::= { dot3MpcpStatEntry 7}

dot3MpcpTxRegAck OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

" A count of the number of times a REGISTER_ACK MPCP frames transmission occurs. Increment the counter by one for each REGISTER_ACK MPCP frame transmitted as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU"

::= { dot3MpcpStatEntry 8}

dot3MpcpRxRegAck OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current

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DESCRIPTION

" A count of the number of times a REGISTER_ACK MPCP frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each REGISTER_ACK MPCP frame received for each LLID, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU and for an OLT"

::= { dot3MpcpStatEntry 9}

dot3MpcpTxReport OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

" A count of the number of times a REPORT MPCP frames transmission occurs. Increment the counter by one for each REPORT MPCP frame transmitted as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 10}

dot3MpcpRxReport OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

" A count of the number of times a REPORT MPCP frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each REPORT MPCP frame received for each LLID, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU and for an OLT."

::= { dot3MpcpStatEntry 11}

dot3MpcpTxGate OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the number of times a GATE MPCP frames transmission occurs. A set of counters, one for each LLID, at the OLT. Increment the counter by one for each GATE MPCP frame transmitted, for each LLID, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an OLT."

::= { dot3MpcpStatEntry 12}

dot3MpcpRxGate OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the number of times a GATE MPCP frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at

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the OLT. Increment the counter by one for each GATE MPCP frame received, for each LLID, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU and for an OLT."

::= { dot3MpcpStatEntry 13}

dot3MpcpTxRegister OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the number of times a REGISTER MPCP frames transmission occurs. A set of counters, one for each LLID, at the OLT. Increment the counter by one for each REGISTER MPCP frame transmitted, for each LLID, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an OLT."

::= { dot3MpcpStatEntry 14}

dot3MpcpRxRegister OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of the number of times a REGISTER MPCP frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each REGISTER MPCP frame received, for each LLID, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU and for an OLT."

::= { dot3MpcpStatEntry 15}

dot3MpcpRxNotSupportedMPCP OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a non-supported MPCP frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each non-supported MPCP frame received, for each LLID, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU and for an OLT."

::= { dot3MpcpStatEntry 16}

dot3MpcpTxFramesQueue0 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-0' frames transmission occurs. Increment the counter by one for each frame transmitted which is an

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output of 'Queue-0'. The 'Queue-0' marking matched the REPORT MPCP message Queue-0 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 17}

dot3MpcpTxFramesQueue1 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-1' frames transmission occurs. Increment the counter by one for each frame transmitted which is an output of 'Queue-1'. The 'Queue-1' marking matched the REPORT MPCP

message Queue-1 field, as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 18}

dot3MpcpTxFramesQueue2 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-2' frames transmission occurs. Increment the counter by one for each frame transmitted which is an output of 'Queue-2'. The 'Queue-2' marking matched the REPORT MPCP message Queue-2 field, as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 19}

dot3MpcpTxFramesQueue3 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-3' frames transmission occurs. Increment the counter by one for each frame transmitted which is an output of 'Queue-3'. The 'Queue-3' marking matched the REPORT MPCP message Queue-3 field, as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 20}

dot3MpcpTxFramesQueue4 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-4' frames transmission occurs. Increment the counter by one for each frame transmitted which is an

output of 'Queue-4'. The 'Queue-4' marking matched the REPORT MPCP message Queue-4 field, as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 21}

dot3MpcpTxFramesQueue5 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-5' frames transmission occurs. Increment the counter by one for each frame transmitted which is an output of 'Queue-5'. The 'Queue-5' marking matched the REPORT MPCP message Queue-5 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 22}

dot3MpcpTxFramesQueue6 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-6' frames transmission occurs. Increment the counter by one for each frame transmitted which is an output of 'Queue-6'. The 'Queue-6' marking matched the REPORT MPCP message Queue-6 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 23}

dot3MpcpTxFramesQueue7 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-7' frames transmission occurs. Increment the counter by one for each frame transmitted which is an output of 'Queue-7'. The 'Queue-7' marking matched the REPORT MPCP message Queue-0 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 24}

dot3MpcpRxFramesQueue0 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-0' frames reception occurs. A

single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each frame received for each LLID, which is an output of 'Queue-0'. The 'Queue-0' marking matched the REPORT MPCP message Queue-0 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU and an OLT."

::= { dot3MpcpStatEntry 25}

dot3MpcpRxFramesQueue1 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of the number of times a 'Queue-1' frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each frame received for each LLID, which is an output of 'Queue-1'. The 'Queue-1' marking matched the REPORT MPCP message Queue-1 field, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU and an OLT."

::= { dot3MpcpStatEntry 26}

dot3MpcpRxFramesQueue2 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-2' frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each frame received for each LLID, which is an output of 'Queue-2'. The 'Queue-2' marking matched the REPORT MPCP message Queue-2 field, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU and an OLT."

::= { dot3MpcpStatEntry 27}

dot3MpcpRxFramesQueue3 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-3' frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each frame received for each LLID, which is an output of 'Queue-3'. The 'Queue-3' marking matched the REPORT MPCP message Queue-3 field, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU and an OLT."

::= { dot3MpcpStatEntry 28}

dot3MpcpRxFramesQueue4 OBJECT-TYPE

SYNTAX Counter32

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MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of the number of times a 'Queue-4' frames reception occurs. A

single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each frame received for each LLID, which is an output of 'Queue-4'. The 'Queue-4' marking matched the REPORT MPCP message Queue-4 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU and an OLT."

::= { dot3MpcpStatEntry 29}

dot3MpcpRxFramesQueue5 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-5' frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each frame received for each LLID, which is an output of 'Queue-5'. The 'Queue-5' marking matched the REPORT MPCP message Queue-5 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU and an OLT."

::= { dot3MpcpStatEntry 30}

dot3MpcpRxFramesQueue6 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-6' frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each frame received for each LLID, which is an output of 'Queue-6'. The 'Queue-6' marking matched the REPORT MPCP message Queue-6 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU and an OLT."

::= { dot3MpcpStatEntry 31}

dot3MpcpRxFramesQueue7 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-7' frames reception occurs. A single counter at the ONU and a set of counters, one for each LLID, at the OLT. Increment the counter by one for each frame received for each LLID, which is an output of 'Queue-7'. The 'Queue-7' marking matched the REPORT MPCP message Queue-7 field, as defined in [802.3ah] clause 64. This counter is mandatory for an ONU and an OLT."

::= { dot3MpcpStatEntry 32}

dot3MpcpDroppedFramesQueue0 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-0' frames drops occurs. Increment the counter by one for each frame dropped from 'Queue-0'. The 'Queue-0' marking matched the REPORT MPCP message Queue-0 field, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 33}

dot3MpcpDroppedFramesQueue1 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-1' frames drops occurs. Increment the counter by one for each frame dropped from 'Queue-1'. The 'Queue-1' marking matched the REPORT MPCP message Queue-1 field, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 34}

dot3MpcpDroppedFramesQueue2 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-2' frames drops occurs. Increment the counter by one for each frame dropped from 'Queue-2'. The 'Queue-2' marking matched the REPORT MPCP message Queue-2 field, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 35}

dot3MpcpDroppedFramesQueue3 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of the number of times a 'Queue-3' frames drops occurs. Increment the counter by one for each frame dropped from 'Queue-3'. The 'Queue-3' marking matched the REPORT MPCP message Queue-3 field, as defined in [\[802.3ah\]](#) clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 36}

dot3MpcpDroppedFramesQueue4 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

" A count of the number of times a 'Queue-4' frames drops occurs. Increment the counter by one for each frame dropped from 'Queue-4'. The 'Queue-4' marking matched the REPORT MPCP message Queue-4 field, as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 37}

dot3MpcpDroppedFramesQueue5 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

" A count of the number of times a 'Queue-5' frames drops occurs. Increment the counter by one for each frame dropped from 'Queue-5'. The 'Queue-5' marking matched the REPORT MPCP message Queue-5 field, as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 38}

dot3MpcpDroppedFramesQueue6 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

" A count of the number of times a 'Queue-6' frames drops occurs. Increment the counter by one for each frame dropped from 'Queue-6'. The 'Queue-6' marking matched the REPORT MPCP message Queue-6 field, as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 39}

dot3MpcpDroppedFramesQueue7 OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

" A count of the number of times a 'Queue-7' frames drops occurs. Increment the counter by one for each frame dropped from 'Queue-7'. The 'Queue-7' marking matched the REPORT MPCP message Queue-7 field, as defined in [[802.3ah](#)] clause 64. This counter is mandatory for an ONU."

::= { dot3MpcpStatEntry 40}

-- Conformance Statements

-- Conformance Groups

dot3MpcpGroups OBJECT IDENTIFIER ::= { dot3MpcpConformance 1 }

dot3MpcpGroupBase OBJECT-GROUP

OBJECTS {

dot3MpcpAdminState ,
dot3MpcpMode ,
dot3MpcpLinkID ,
dot3MpcpRemoteMACAddress ,
dot3MpcpRegistrationState ,
dot3MpcpMaximumPendingGrants ,
dot3MPCPAdminControl

}

STATUS current

DESCRIPTION

"A collection of objects of dot3 Mpcp Basic entity state
definition."

::= { dot3MpcpGroups 1 }

dot3MpcpGroupParam OBJECT-GROUP

OBJECTS {

dot3MpcpTransmitElapsed ,
dot3MpcpReceiveElapsed ,
dot3MpcpRoundTripTime ,
dot3MpcpOnTime ,
dot3MpcpOffTime ,
dot3MpcpReceiverSettlingTime ,
dot3MpcpCdrLockTime ,
dot3MpcpReportThreshold

}

STATUS current

DESCRIPTION

"A collection of objects of dot3 Mpcp for P2MP parameters."

::= { dot3MpcpGroups 2 }

dot3MpcpGroupStat OBJECT-GROUP

OBJECTS {

dot3MpcpMACCtrlFramesTransmitted ,
dot3MpcpMACCtrlFramesReceived ,
dot3MpcpDiscoveryWindowsSent ,
dot3MpcpRegistrationAttempts ,

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```

dot3MpcpDiscoveryTimeout      ,
dot3MpcpTxRegRequest          ,
dot3MpcpRxRegRequest          ,
dot3MpcpTxRegAck              ,
dot3MpcpRxRegAck              ,
dot3MpcpTxReport              ,
dot3MpcpRxReport              ,
dot3MpcpTxGate                ,
dot3MpcpRxGate                ,
dot3MpcpTxRegister            ,
dot3MpcpRxRegister            ,
dot3MpcpRxNotSupportedMPCP    ,
dot3MpcpTxFramesQueue0        ,
dot3MpcpTxFramesQueue1        ,
dot3MpcpTxFramesQueue2        ,
dot3MpcpTxFramesQueue3        ,
dot3MpcpTxFramesQueue4        ,
dot3MpcpTxFramesQueue5        ,
dot3MpcpTxFramesQueue6        ,
dot3MpcpTxFramesQueue7        ,
dot3MpcpRxFramesQueue0        ,
dot3MpcpRxFramesQueue1        ,
dot3MpcpRxFramesQueue2        ,
dot3MpcpRxFramesQueue3        ,
dot3MpcpRxFramesQueue4        ,
dot3MpcpRxFramesQueue5        ,
dot3MpcpRxFramesQueue6        ,
dot3MpcpRxFramesQueue7        ,
dot3MpcpDroppedFramesQueue0    ,
dot3MpcpDroppedFramesQueue1    ,
dot3MpcpDroppedFramesQueue2    ,
dot3MpcpDroppedFramesQueue3    ,
dot3MpcpDroppedFramesQueue4    ,
dot3MpcpDroppedFramesQueue5    ,
dot3MpcpDroppedFramesQueue6    ,
dot3MpcpDroppedFramesQueue7

```

}

STATUS current

DESCRIPTION

"A collection of objects of dot3 Mpcp Statistics"

::= { dot3MpcpGroups 3 }

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-- Compliance

```
dot3MpcpCompliances OBJECT IDENTIFIER ::= { dot3MpcpConformance 2 }
```

```
dot3MPCPCompliance MODULE-COMPLIANCE
```

```
    STATUS      current
```

```
    DESCRIPTION "The compliance statement for Multi-point control  
protocol interfaces."
```

```
    MODULE -- this module
```

```
    MANDATORY-GROUPS { dot3MpcpGroupBase }
```

```
    GROUP      dot3MpcpGroupParam
```

```
    DESCRIPTION "This group is mandatory for all  
MPCP supporting interfaces  
for configuration of the Multipoint  
Params."
```

```
    GROUP      dot3MpcpGroupStat
```

```
    DESCRIPTION " This group is mandatory for all  
MPCP supporting interfaces  
for Statistics collection."
```

```
 ::= { dot3MpcpCompliances 1 }
```

[4.2](#) OMPEmulation managed object definitions

```
dot30mpEmulationMIB OBJECT IDENTIFIER ::= { dot3EfmeponMIB 2 }
```

```
dot30mpEmulationObjects OBJECT IDENTIFIER ::= { dot30mpEmulationMIB 1 }
```

```
dot30mpeConformance OBJECT IDENTIFIER ::= { dot30mpEmulationMIB 2 }
```

```
dot30mpEmulationTable OBJECT-TYPE
```

```
SYNTAX SEQUENCE OF Dot30mpEmulationEntry
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

```
    "Table for dot3 OmpEmulation MIBs."
```

::= { dot3OmpEmulationObjects 1 }

dot3OmpEmulationEntry OBJECT-TYPE

SYNTAX Dot3OmpEmulationEntry

MAX-ACCESS not-accessible

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STATUS current

DESCRIPTION

"An entry in the dot3 OmpEmulation MIBs table."

INDEX { ifIndex }

::= { dot3OmpEmulationTable 1 }

Dot3OmpEmulationEntry ::=

SEQUENCE {

dot3OmpEmulationID INTEGER,

dot3OmpEmulationType INTEGER

}

dot3OmpEmulationID OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" The value of aOAMID is assigned so as to uniquely identify a OMPEmulation entity among the subordinate managed objects of the containing object."

REFERENCE "[[802.3ah](#)], 30.12.1.1."

::= { dot3OmpEmulationEntry 1 }

dot3OmpEmulationType OBJECT-TYPE

SYNTAX INTEGER {

unknown(1),

olt(2),

onu(3)

}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A read-only value that indicates that mode of operation of the Reconciliation Sublayer for Point to Point Emulation (see [[802.3ah](#)] clause 65.1.2.1). 'unknown' value is assigned in initializing, true state or type not yet known. 'olt' value is assigned when Sublayer operating in OLT mode. 'onu' value is assigned when Sublayer operating in ONU mode."

REFERENCE "[[802.3ah](#)], 30.12.1.2."

::= { dot30mpEmulationEntry 2 }

dot30mpEmulationStatTable OBJECT-TYPE

SYNTAX SEQUENCE OF Dot30mpEmulationStatEntry

MAX-ACCESS not-accessible

STATUS current

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DESCRIPTION

"This table defines the list of statistics counters of [[802.3ah](#)] clause **65 OMP interface.**"

::= { dot30mpEmulationObjects 2 }

dot30mpEmulationStatEntry OBJECT-TYPE

SYNTAX Dot30mpEmulationStatEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Table entries for Table of statistics counters of [[802.3ah](#)] clause 65 OMP interface."

INDEX { ifIndex }

::= { dot30mpEmulationStatTable 1 }

Dot30mpEmulationStatEntry ::=

SEQUENCE {

dot30mpEmulationSPDErrors Counter32,

dot30mpEmulationCRC8Errors Counter32,

dot30mpEmulationBadLLID Counter32,

dot30mpEmulationBroadcastLLIDNotOnuID Counter32,

dot30mpEmulationOnuLLIDNotBroadcast Counter32,

dot30mpEmulationBroadcastLLIDPlusOnuId Counter32,

dot30mpEmulationNotBroadcastLLIDNotOnuId Counter32

}

dot30mpEmulationSPDErrors OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of frames received that do not contain a valid SPD field as defined in [[802.3ah](#)] clause 65.1.2.4.1. This attribute is mandatory for a OLT and optional for a ONU."

REFERENCE "[[802.3ah](#)], 30.12.1.3."

::= { dot30mpEmulationStatEntry 1 }

dot30mpEmulationCRC8Errors OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of frames received that contain a valid SPD field, as defined in [802.3ah] clause 65.1.2.4.1, but do not pass the CRC-8 check as defined in [802.3ah] clause 65.1.2.4.3. This attribute is mandatory for a OLT and optional for a ONU."

REFERENCE "[802.3ah], 30.12.1.4."
::= { dot3OmpEmulationStatEntry 2 }

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dot3OmpEmulationBadLLID OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of frames received that contain a valid SPD field in a OLT, as defined in [802.3ah] clause 65.1.2.4.1, and pass the CRC-8 check, as defined in [802.3ah] clause 65.1.2.4.3, but are discarded due to the LLID check as defined in [802.3ah] clause 65.1.2.4.2."

REFERENCE "[802.3ah], 30.12.1.5."
::= { dot3OmpEmulationStatEntry 3 }

dot3OmpEmulationBroadcastLLIDNotOnuID OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of frames received that contain a valid SPD field in a OLT, as defined in [802.3ah] clause 65.1.2.4.1, and pass the CRC-8 check, as defined in [802.3ah] clause 65.1.2.4.3, and contain broadcast LLID as defined in [802.3ah] clause 65. This attribute is mandatory for a OLT and for a ONU."

::= { dot3OmpEmulationStatEntry 4 }

dot3OmpEmulationOnuLLIDNotBroadcast OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of frames received that contain a valid SPD field in a OLT, as defined in [802.3ah] clause 65.1.2.4.1, and pass the CRC-8 check, as defined in [802.3ah] clause 65.1.2.4.3, and contain the ONU's LLID as defined in [802.3ah] clause 65. This attribute is mandatory for an ONU and mandatory for a OLT (a counter per LLID)."

::= { dot3OmpEmulationStatEntry 5 }

dot30mpEmulationBroadcastLLIDPlusOnuId OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of frames received that contain a valid SPD field in a OLT, as defined in [802.3ah] clause 65.1.2.4.1, and pass the CRC-8 check, as defined in [802.3ah] clause 65.1.2.4.3, and contain the broadcast LLID plus ONU's LLID (frame reflected) as defined in [802.3ah] clause 65. This attribute is mandatory for an ONU and mandatory for a OLT (a counter per LLID)."

::= { dot30mpEmulationStatEntry 6 }

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dot30mpEmulationNotBroadcastLLIDNotOnuId OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" A count of frames received that contain a valid SPD field in a OLT, as defined in [802.3ah] clause 65.1.2.4.1, and pass the CRC-8 check, as defined in [802.3ah] clause 65.1.2.4.3, and does not contain the ONU's LLID as defined in [802.3ah] clause 65. This attribute is mandatory for an ONU"

::= { dot30mpEmulationStatEntry 7 }

-- Conformance Statements

-- Conformance Groups

dot30mpeGroups OBJECT IDENTIFIER ::= { dot30mpeConformance 1 }

dot30mpeGroupID OBJECT-GROUP

OBJECTS {

dot30mpEmulationID ,
dot30mpEmulationType

}

STATUS current

DESCRIPTION

"A collection of objects of dot3 OMP emulation ID entity state definition."

```
::= { dot30mpeGroups 1 }
```

```
dot30mpeGroupStat OBJECT-GROUP
```

```
OBJECTS {
```

```
    dot30mpEmulationSPDErrors           ,
    dot30mpEmulationCRC8Errors          ,
    dot30mpEmulationBadLLID             ,
    dot30mpEmulationBroadcastLLIDNotOnuID ,
    dot30mpEmulationOnuLLIDNotBroadcast ,
    dot30mpEmulationBroadcastLLIDPlusOnuId ,
    dot30mpEmulationNotBroadcastLLIDNotOnuId
```

```
}
```

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```
STATUS current
```

```
DESCRIPTION
```

```
"A collection of objects of dot3 OMP emulation Statistics"
```

```
::= { dot30mpeGroups 2 }
```

```
-- Compliance
```

```
dot30mpeCompliances OBJECT IDENTIFIER ::= { dot30mpeConformance 2 }
```

```
dot30mpeCompliance MODULE-COMPLIANCE
```

```
STATUS current
```

```
DESCRIPTION "The compliance statement for OMPEmulation  
interfaces."
```

```
MODULE -- this module
```

```
MANDATORY-GROUPS { dot30mpeGroupID }
```

```
GROUP dot30mpeGroupStat
```

```
DESCRIPTION " This group is mandatory for all  
OMPEmulation supporting interfaces  
for Statistics collection."
```

```
::= { dot30mpeCompliances 1 }
```

[4.3](#) MAU managed object definitions (30.5.1)

```
dot3EponMauMIB OBJECT IDENTIFIER ::= { dot3EfmeponMIB 3 }
```


dot3EponMauObjects OBJECT IDENTIFIER ::= { dot3EponMauMIB 1 }

dot3EponMauConformance OBJECT IDENTIFIER ::= { dot3EponMauMIB 2 }

dot3EponMauTable OBJECT-TYPE

SYNTAX SEQUENCE OF Dot3EponMauEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Table for dot3 MAU EPON MIBs."

::= { dot3EponMauObjects 1 }

dot3EponMauEntry OBJECT-TYPE

SYNTAX Dot3EponMauEntry

MAX-ACCESS not-accessible

STATUS current

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DESCRIPTION

"An entry in the dot3 MAU EPON MIBs table."

INDEX { ifIndex }

::= { dot3EponMauTable 1 }

Dot3EponMauEntry ::=

SEQUENCE {

dot3EponMauPCSCodingViolation Counter32,

dot3EponMauFecMode INTEGER,

dot3EponMauFECCorrectedBlocks Counter32,

dot3EponMauFECUncorrectableBlocks Counter32,

dot3EponMauBufferHeadCodingViolation Counter32

}

dot3EponMauPCSCodingViolation OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" For 100 Mb/ s operation it is a count of the number of times an invalid code-group is received, other than the /H/ code-group. For 1000 Mb/ s operation it is a count of the number of times an invalid codegroup is received, other than the /V/ code-group."

REFERENCE "[[802.3ah](#)], 30.5.1.1.12."

::= { dot3EponMauEntry 1 }

dot3EponMauFecMode OBJECT-TYPE

SYNTAX INTEGER {

```
        nonFecSupport(1),
        fecTxSupport (2),
        fecRxSupport (3),
        fecTxRxSupport (4)
    }
```

```
MAX-ACCESS read-only
```

```
STATUS current
```

```
DESCRIPTION
```

" A read-only value that indicates that mode of operation of the FEC Sublayer for Forward error correction (see [\[802.3ah\]](#) clause 65.2). 'nonFecSupport' value is assigned in initializing, for non FEC support state or type not yet known. 'fecTxSupport' value is assigned when Sublayer operating in FEC coded Transmit mode. 'fecRxSupport' value is assigned when Sublayer operating in FEC coded receive mode. 'fecTxRxSupport' value is assigned when Sublayer operating in FEC coded receive and transmit mode."

```
::= { dot3EponMauEntry 2 }
```

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dot3EponMauFECCorrectedBlocks OBJECT-TYPE

```
SYNTAX Counter32
```

```
MAX-ACCESS read-only
```

```
STATUS current
```

```
DESCRIPTION
```

" For 10PASS-TS, 2BASE-TL and 1000BASE-PX PHYs, a count of corrected FEC blocks. This counter will not increment for other PHY Types. Increment the counter by one for each received block that is corrected by the FEC function in the PHY."

```
REFERENCE "[802.3ah], 30.5.1.1.13."
```

```
::= { dot3EponMauEntry 3 }
```

dot3EponMauFECUncorrectableBlocks OBJECT-TYPE

```
SYNTAX Counter32
```

```
MAX-ACCESS read-only
```

```
STATUS current
```

```
DESCRIPTION
```

" For 10PASS-TS, 2BASE-TL and 1000BASE-PX PHYs, a count of uncorrectable FEC blocks. This counter will not increment for other PHY Types. Increment the counter by one for each FEC block that is determined to be uncorrectable by the FEC function in the PHY."

```
REFERENCE "[802.3ah], 30.5.1.1.14."
```

```
::= { dot3EponMauEntry 4 }
```

dot3EponMauBufferHeadCodingViolation OBJECT-TYPE

```
SYNTAX Counter32
```

```
MAX-ACCESS read-only
```

```

        STATUS      current
        DESCRIPTION
" For 1000 Mbps operation it is a counts of the number of invalid code-
group received directly from the link."
        ::= { dot3EponMauEntry 5}

```

```

-- Defining EPON MAU types
--This section should be added to 802.3 MAU MIB RFC.

```

```

dot3EponMauType OBJECT IDENTIFIER ::= { dot3EponMauMIB 3 }

```

```

eponMauType1000BasePXOLT OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION "Multipoint MAC Control (per 802.3 section 64,65)
                OLT (master), unknown PMD"
    REFERENCE   "[802.3ah], 30.5.1.1.2."
    ::= { dot3EponMauType 1 }

```

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```

eponMauType1000BasePXONU OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION "Multipoint MAC Control (per 802.3 section 64,65),ONU (slave), unknown PMD"
    REFERENCE   "[802.3ah], 30.5.1.1.2."
    ::= { dot3EponMauType 2 }

```

```

eponMauType1000BasePX10DOLT OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION "EPON over 10K link, downlink (per 802.3 section 60), OLT side"
    REFERENCE   "[802.3ah], 30.5.1.1.2."
    ::= { dot3EponMauType 3 }

```

```

eponMauType1000BasePX10DONU OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION "EPON over 10K link, downlink (per 802.3 section 60), ONU side"
    REFERENCE   "[802.3ah], 30.5.1.1.2."
    ::= { dot3EponMauType 4 }

```

```

eponMauType1000BasePX10UOLT OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION "EPON over 10K link, uplink (per 802.3 section 60), OLT side"
    REFERENCE   "[802.3ah], 30.5.1.1.2."

```

```
::= { dot3EponMauType 5 }
```

```
eponMauType1000BasePX10UONU OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION  "EPON over 10K link, uplink (per 802.3 section 60), ONU side"
    REFERENCE    "[802.3ah], 30.5.1.1.2."
    ::= { dot3EponMauType 6 }
```

```
eponMauType1000BasePX20DOLT OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION  "EPON over 20K link, downlink (per 802.3 section 60), OLT side"
    REFERENCE    "[802.3ah], 30.5.1.1.2."
    ::= { dot3EponMauType 7 }
```

```
eponMauType1000BasePX20DONU OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION  "EPON over 20K link, downlink (per 802.3 section 60), ONU side"
    REFERENCE    "[802.3ah], 30.5.1.1.2."
```

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```
::= { dot3EponMauType 8 }
```

```
eponMauType1000BasePX20UOLT OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION  "EPON over 20K link, uplink (per 802.3 section 60), OLT side"
    REFERENCE    "[802.3ah], 30.5.1.1.2."
    ::= { dot3EponMauType 9 }
```

```
eponMauType1000BasePX20UONU OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION  "EPON over 20K link, uplink (per 802.3 section 60), ONU side"
    REFERENCE    "[802.3ah], 30.5.1.1.2."
    ::= { dot3EponMauType 10 }
```

-- Conformance Statements

-- Conformance Groups

```
dot3EponMauGroups OBJECT IDENTIFIER ::= { dot3EponMauConformance 1 }
```

```
dot3EponMauGroupAll OBJECT-GROUP
```

```

OBJECTS {
    dot3EponMauPCSCodingViolation
}
STATUS current
DESCRIPTION
    "A collection of objects of dot3 MAU definition."
::= { dot3EponMauGroups 1 }

dot3EponMauGroupFEC OBJECT-GROUP
OBJECTS {
    dot3EponMauFecMode ,
    dot3EponMauFECCorrectedBlocks ,
    dot3EponMauFECUncorrectableBlocks ,
    dot3EponMauBufferHeadCodingViolation
}
STATUS current
DESCRIPTION
    "A collection of objects of FEC group definition."
::= { dot3EponMauGroups 2 }

```

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-- Compliance

dot3EponMauCompliances OBJECT IDENTIFIER ::= {dot3EponMauConformance 2}

```

dot3EponMauCompliance MODULE-COMPLIANCE
    STATUS current
    DESCRIPTION "The compliance statement for MAU EPON
                interfaces."

    MODULE -- this module
    MANDATORY-GROUPS { dot3EponMauGroupAll }

    GROUP dot3EponMauGroupFEC
    DESCRIPTION " This group is mandatory for all
                  EPON MAU devices Supporting FEC
                  functionality as for Definitions and BER
                  Statistics collection."

    ::= { dot3EponMauCompliances 1}

```

END

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[5.](#) **Definitions - The EPON Device MIB**

EPON-DEVICE-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY, mib-2, OBJECT-TYPE, Counter32,
Integer32
FROM SNMPv2-SMI
TruthValue, MacAddress
FROM SNMPv2-TC
ifIndex
FROM IF-MIB
MODULE-COMPLIANCE, OBJECT-GROUP
FROM SNMPv2-CONF
;

eponDeviceMIB MODULE-IDENTITY

LAST-UPDATED "200312290000Z" -- December 29, 2003

ORGANIZATION "IETF Ethernet Interfaces and Hub MIB
Working Group"

CONTACT-INFO

"WG charter:
[http://www.ietf.org/html.charters/hubmib-](http://www.ietf.org/html.charters/hubmib-charter.html)
charter.html

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DESCRIPTION

"The objects in this MIB module are used to manage Ethernet Passive Optical Network (EPON) devices which are based on the Ethernet in the First Mile (EFM) PON as defined in IEEE Draft P802.3ah/D3.0 clause 60,64,65.

The following reference is used throughout this MIB module:
[[802.3ah](#)] refers to:

IEEE Draft P802.3ah/D3.0: 'Draft amendment to -
Information technology - Telecommunications and
information exchange between systems - Local and
metropolitan area networks - Specific requirements -
Part 3: Carrier sense multiple access with collision
detection (CSMA/CD) access method and physical layer
specifications - Media Access Control Parameters, Physical
Layers and Management Parameters for subscriber access
networks', 07 October 2003.

Of particular interest are Clause 64(MPCP) 65(P2mP RS) and 60
(PON PMDs). Clause 30, 'Management', and Clause 45, 'Management
Data Input/Output (MDIO) Interface'.

Copyright (C) The Internet Society (2003). This version of this MIB module is part of XXXX see the RFC itself for full legal notices."

-- Editor's Note: Replace XXXX with the actual RFC number
-- assigned by RFC Editor and remove this note

REVISION "200312110000Z" -- December 11, 2003
DESCRIPTION "Initial version, published as RFC XXXX."

::= { mib-2 XXX }

-- Editor's Note: Replace XXX with a real OID once it is
-- assigned by IANA and remove this note.

eponDeviceObjectMIB OBJECT IDENTIFIER ::= { eponDeviceMIB 1}

eponDeviceObjects OBJECT IDENTIFIER ::= { eponDevice 1}

eponDeviceConformance OBJECT IDENTIFIER ::= { eponDevice 2 }

eponDeviceTable OBJECT-TYPE
SYNTAX SEQUENCE OF EponDeviceEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"Table for EPON device MIBs."

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::= { eponDeviceObjects 1 }

eponDeviceEntry OBJECT-TYPE
SYNTAX EponDeviceEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"An entry in the EPON device table."
INDEX { ifIndex }
::= { eponDeviceTable 1 }

EponDeviceEntry ::=

SEQUENCE {	
eponDeviceObjectReset	INTEGER,
eponDeviceObjectModes	INTEGER,
eponDeviceObjectFecEnabled	INTEGER,
eponDeviceObjectOamMode	INTEGER,
eponDeviceObjectOnuLoopback	TruthValue,

eponDeviceObjectOnuRegisterStatus	INTEGER,
eponDeviceObjectPowerDown	TruthValue,
eponDeviceObjectDyingGaspAlarmState	TruthValue,
eponDeviceObjectCriticalEventState	TruthValue,
eponDeviceObjectLocalLinkFaultAlarmState	TruthValue,
eponDeviceObjectTemperatureEventIndicationState	TruthValue,
eponDeviceObjectPowerVoltageEventIndicationState	TruthValue,
eponDeviceObjectVendorSpecificAlarmState	TruthValue,
eponDeviceObjectVendorSpecificEventState	TruthValue,
eponDeviceObjectGlobalEvent0State	TruthValue,
eponDeviceObjectGlobalEvent1State	TruthValue,
eponDeviceObjectGlobalEvent2State	TruthValue,
eponDeviceObjectGlobalEvent3State	TruthValue,
eponDeviceObjectGlobalEvent4State	TruthValue,
eponDeviceObjectGlobalEvent5State	TruthValue,
eponDeviceObjectGlobalEvent6State	TruthValue,
eponDeviceObjectGlobalEvent7State	TruthValue,
eponDeviceObjectErroredSymbolPeriodEventState	TruthValue,
eponDeviceObjectErroredFrameEventState	TruthValue,
eponDeviceObjectErroredFramePeriodEventState	TruthValue,
eponDeviceObjectErroredFrameSecondsSummaryEventState	TruthValue,
eponDeviceObjectOrganizationSpecificEventState	TruthValue
}	

eponDeviceObjectReset OBJECT-TYPE

```
SYNTAX TruthValue {
    running(1),
    reset(2)
}
```

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MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This variable can be used to reset the EPON device. The interface may be unavailable while the reset occurs and data may be lost."

::= { eponDeviceEntry 1 }

eponDeviceObjectModes OBJECT-TYPE

```
SYNTAX TruthValue {
    olt(1),
    onu(2)
}
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This variable defines the mode of the EPON device. When an olt it is an Optical Line Terminal device (server) and when an onu and Optical Network Unit device (client)"
 ::= { eponDeviceEntry 2 }

eponDeviceObjectFecEnabled OBJECT-TYPE

SYNTAX INTEGER {
noFecEnabled (1),
fecTxEnabled (2),
fecRxEnabled (3),
fecTxRxEnabled (4)
}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This variable defines whether the EPON device uses FEC as defined in the [802.3ah] clause 65 for EPON. When fecTxEnabled the device supports the FEC transmission mode. When fecRxEnabled the device supports the FEC Receive mode. When fecTxRxEnabled the device supports the FEC transmission and receive mode."

::= { eponDeviceEntry 3 }

eponDeviceObjectOamMode OBJECT-TYPE

SYNTAX INTEGER {
noOam (1),
oamServer (2),
oamclient (3)
}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

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"This variable defines the Operation Administration and Maintenance (OAM) mode of an EPON device as defined by the [802.3ah] clause 57. When noOam the device does not supports the OAM mode. When oamServer the device supports the OAM mode as a server unit. When oamClient the device supports the OAM mode as a client unit."

::= { eponDeviceEntry 4 }

eponDeviceObjectOnuLoopback OBJECT-TYPE

SYNTAX TruthValue
}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Setting this variable to loopback will cause data sent from the PON into the ONU to be returned on the same interface."

::= { eponDeviceEntry 5 }

eponDeviceObjectOnuRegisterStatus OBJECT-TYPE

SYNTAX INTEGER {

notRegistered (1),
inRegistration (2),
registered (3)

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This variable defines the Multipoint Control Protocol (MPCP) Registration mode of an EPON device as defined by the [\[802.3ah\]](#) clause 64. When notRegistered the device is not registered. When inRegistration the device is in registration process. When registered the device is registered. "

::= { eponDeviceEntry 6 }

eponDeviceObjectPowerDown OBJECT-TYPE

SYNTAX TruthValue

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Setting this variable to powerDown will cause Device to be entered into Power down mode where no registration is allowed and only receiving data from the link"

::= { eponDeviceEntry 7 }

eponDeviceObjectDyingGaspAlarmState OBJECT-TYPE

SYNTAX TruthValue

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MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Dying Gasp indication of the OAM alarm indications as described in the [\[802.3ah\]](#) clause 57. When dyingGaspAlarm the device has a dying gasp alarm asserted. "

::= { eponDeviceEntry 8 }

eponDeviceObjectCriticalEventState OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only variable, which defines the state of the Critical Event indication of the OAM alarm indications as described in the [802.3ah] clause 57. When criticalEvent the device has a Critical Event asserted. "

::= { eponDeviceEntry 9 }

eponDeviceObjectLocalLinkFaultAlarmState OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only variable, which defines the state of the Local Link Fault indication of the OAM alarm indications as described in the [802.3ah] clause 57. When localLinkFaultAlarm the device has a Local Link Fault alarm asserted. "

::= { eponDeviceEntry 10 }

eponDeviceObjectTemperatureEventIndicationState OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only variable, which defines the state of the Temperature Event indication of the OAM alarm indications as described in the [802.3ah] clause 57. When temperatureEventIndication the device has a Temperature Event Indication asserted. "

::= { eponDeviceEntry 11 }

eponDeviceObjectPowerVoltageEventIndicationState OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only variable, which defines the state of the

Power/Voltage Event Indication of the OAM alarm indications as described in the [802.3ah] clause 57. When powerVoltageEventIndication the device has a Power/Voltage Event Indication asserted. "

::= { eponDeviceEntry 12 }

eponDeviceObjectVendorSpecificAlarmState OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only variable, which defines the state of the Vendor Specific alarm indication of the OAM alarm indications as described in the [\[802.3ah\]](#) clause 57. When vendorSpecificAlarm the device has a Vendor Specific alarm asserted. "

::= { eponDeviceEntry 13 }

eponDeviceObjectVendorSpecificEventState OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only variable, which defines the state of the Vendor Specific Event indication of the OAM alarm indications as described in the [\[802.3ah\]](#) clause 57. When vendorSpecificEvent the device has a Vendor Specific Event asserted. "

::= { eponDeviceEntry 14 }

eponDeviceObjectGlobalEvent0State OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only variable, which defines the state of the Global Event #0 indication of the OAM alarm indications as described in the [\[802.3ah\]](#) clause 57. When globalEvent0 the device has a Global Event #0 asserted. "

::= { eponDeviceEntry 15 }

eponDeviceObjectGlobalEvent1State OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A read-only variable, which defines the state of the Global Event #1 indication of the OAM alarm indications as described in the [\[802.3ah\]](#) clause 57. When globalEvent1 the device has a Global Event #1 asserted. "

::= { eponDeviceEntry 16 }

eponDeviceObjectGlobalEvent2State OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Global Event #2 indication of the OAM alarm indications as described in the [802.3ah] clause 57. When globalEvent2 the device has a Global Event #2 asserted.
"

::= { eponDeviceEntry 17 }

eponDeviceObjectGlobalEvent3State OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Global Event #3 indication of the OAM alarm indications as described in the [802.3ah] clause 57. When globalEvent3 the device has a Global Event #3 asserted.
"

::= { eponDeviceEntry 18 }

eponDeviceObjectGlobalEvent4State OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Global Event #4 indication of the OAM alarm indications as described in the [802.3ah] clause 57. When globalEvent4 the device has a Global Event #4 asserted.
"

::= { eponDeviceEntry 19 }

eponDeviceObjectGlobalEvent5State OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Global Event #5 indication of the OAM alarm indications as described in the [802.3ah] clause 57. When globalEvent5 the device has a Global Event #5 asserted.
"

::= { eponDeviceEntry 20 }

eponDeviceObjectGlobalEvent6State OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Global Event #6 indication of the OAM alarm indications as described in the [\[802.3ah\]](#) clause 57. When globalEvent6 the device has a Global Event #6 asserted.
"

::= { eponDeviceEntry 21 }

eponDeviceObjectGlobalEvent7State OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Global Event #7 indication of the OAM alarm indications as described in the [\[802.3ah\]](#) clause 57. When globalEvent7 the device has a Global Event #7 asserted.
"

::= { eponDeviceEntry 22 }

eponDeviceObjectErroredSymbolPeriodEventState OBJECT-TYPE

SYNTAX TruthValue

}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Errored Symbol Period Event indication of the OAM alarm TLV indications as described in the [\[802.3ah\]](#) clause 57.5.3. When erroredSymbolPeriodEvent the device has an Errored Symbol Period Event asserted. "

::= { eponDeviceEntry 23 }

eponDeviceObjectErroredFrameEventState OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Errored Frame Event indication of the OAM alarm TLV indications as described in the [\[802.3ah\]](#) clause 57.5.3. When erroredFrameEvent the device has an Errored Frame Event asserted. "

::= { eponDeviceEntry 24 }

eponDeviceObjectErroredFramePeriodEventState OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Errored Frame Period Event indication of the OAM alarm TLV indications as described in

the [802.3ah] clause 57.5.3. When erroredFramePeriodEvent the device has an Errored Frame Period Event asserted. "

::= { eponDeviceEntry 25 }

eponDeviceObjectErroredFrameSecondsSummaryEventState OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Errored Frame Seconds Summary Event indication of the OAM alarm TLV indications as described in the [802.3ah] clause 57.5.3. When erroredFrameSecondsSummaryEvent the device has an Errored Frame Seconds Summary Event asserted. "

::= { eponDeviceEntry 26 }

eponDeviceObjectOrganizationSpecificEventState OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A read-only variable, which defines the state of the Organization Specific Event indication of the OAM alarm TLV indications as described in the [802.3ah] clause 57.5.3. When organizationSpecificEvent the device has an Organization Specific Event asserted. "

::= { eponDeviceEntry 27 }

-- Conformance Statements

-- Conformance Groups

eponDeviceGroups OBJECT IDENTIFIER ::= { eponDeviceConformance 1 }

eponDeviceGroupAll OBJECT-GROUP

OBJECTS {

eponDeviceObjectReset	,
eponDeviceObjectModes	,
eponDeviceObjectFecEnabled	,
eponDeviceObjectOamMode	,
eponDeviceObjectOnuLoopback	,
eponDeviceObjectOnuRegisterStatus	,
eponDeviceObjectPowerDown	,
eponDeviceObjectDyingGaspAlarmState	,
eponDeviceObjectCriticalEventState	,
eponDeviceObjectLocalLinkFaultAlarmState	,
eponDeviceObjectTemperatureEventIndicationState	,


```
eponDeviceObjectPowerVoltageEventIndicationState      ,
eponDeviceObjectVendorSpecificAlarmState              ,
eponDeviceObjectVendorSpecificEventState              ,
eponDeviceObjectGlobalEvent0State                    ,
eponDeviceObjectGlobalEvent1State                    ,
eponDeviceObjectGlobalEvent2State                    ,
eponDeviceObjectGlobalEvent3State                    ,
eponDeviceObjectGlobalEvent4State                    ,
eponDeviceObjectGlobalEvent5State                    ,
eponDeviceObjectGlobalEvent6State                    ,
eponDeviceObjectGlobalEvent7State                    ,
eponDeviceObjectErroredSymbolPeriodEventState         ,
eponDeviceObjectErroredFrameEventState                ,
eponDeviceObjectErroredFramePeriodEventState         ,
eponDeviceObjectErroredFrameSecondsSummaryEventState ,
eponDeviceObjectOrganizationSpecificEventState

}
STATUS    current
DESCRIPTION
    "A collection of objects of dot3 MAU definition."
 ::= { eponDeviceGroups 1 }
```

-- Compliance

```
eponDeviceCompliances OBJECT IDENTIFIER ::= { eponDeviceConformance 2 }
```

```
eponDeviceCompliance MODULE-COMPLIANCE
    STATUS    current
    DESCRIPTION "The compliance statement for EPON Devices."

    MODULE -- this module
    MANDATORY-GROUPS { eponDeviceGroupAll }

    ::= { eponDeviceCompliances 1}
```

END

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6. Security Considerations

There are number of managed objects defined in this MIB module that have a MAX-ACCESS clause of read-write. Most objects are writeable only when the link is Down. Writing to these objects can have the following potentially disruptive effects on network operation:

Including for example:

- enabling or disabling a MAU or device type
- changing a device state server/client ONU/OLT default type
- enabling, disabling or restarting autonegotiation
- modifying the capabilities of the link û PMD parameters,
- enabling/disabling FEC.

The user of this MIB module must therefore be aware that support for SET operations in a non-secure environment without proper protection can have a negative effect on network operations.

The readable objects in this MIB module (i.e., those with MAX-ACCESS other than not-accessible) may be considered sensitive in some environments since, collectively, they provide information about the performance of network interfaces and can reveal some aspects of their configuration. In such environments it is important to control even GET and NOTIFY access to these objects and possibly even to encrypt their values when sending them over the network via SNMP.

SNMP versions prior to SNMPv3 did not include adequate security. Even if the network itself is secure (for example by using IPSec), even then, there is no control as to who on the secure network is allowed to access and GET/SET (read/change/create/delete) the objects in this MIB module.

It is RECOMMENDED that implementers consider the security features as provided by the SNMPv3 framework (see [\[RFC3410\]](#), [section 8](#)), including full support for the SNMPv3 cryptographic mechanisms (for authentication and privacy).

Further, deployment of SNMP versions prior to SNMPv3 is NOT RECOMMENDED. Instead, it is RECOMMENDED to deploy SNMPv3 and to enable cryptographic security. It is then a customer/operator responsibility to ensure that the SNMP entity giving access to an instance of this MIB module is properly configured to give access to the objects only to those principals (users) that have legitimate rights to indeed GET or SET (change/create/delete) them.

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7. Intellectual Property

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8. Normative References

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