This submission is a proposed resolution to the comment on IEEE802.3.2a Draft 0.2.

Comment: There is no YANG definition corresponding to Cl. 30.14 Management for MAC Merge Sublayer. This definition is required for IEEE802.1Qcw Cl. 48.6.19 ieee802-dot1q-preemption-yang-module and Cl. 48.6.20 ieee802-dot1q-preemption-bridge-yang-module.

***Insert the following table after*** *Table 5–4—Mapping between IEEE Std 802.3, Clause 30 managed objects and* ieee802-ethernet-interface-half-duplex *YANG data nodes:*

**Table 5-x Mapping between IEEE802.3, Clause 30.14 managed objects and ieee802-ethernet-mac-merge YANG data nodes:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **IEEE Std 802.3, Clause 30.14 Management for MAC Merge Sublayer** | | **Reference** | **Corresponding ieee802-ethernet-mac-merge YANG data nodes** | | |
| Managed Object(s) | **Attribute(s)** | **Container(s)** | **Data Node(s)** | **R/W** |
| oMacMergeEntity | aMACMergeSupport | 30.14.1.1 | Interfaces/interface/ethernet/mac-merge/admin-status | merge-support | R |
| aMACMergeStatusVerify | 30.14.1.2 | verify-status | R |
| aMACMergeStatusTx | 30.14.1.5 | status-tx | R |
| aMACMergeEnableTx | 30.14.1.3 | Interfaces/interface/ethernet/mac-merge/admin-control | merge-enable-tx | R/W |
| aMACMergeVerifyDisableTx | 30.14.1.4 | verify-disable-tx | R/W |
| aMACMergeVerifyTime | 30.14.1.6 | verify-time | R/W |
| aMACMergeAddFragSize | 30.14.1.7 | frag-size | R/W |
| aMACMergeFrameAssErrorCount | 30.14.1.8 | Interfaces/interface/ethernet/mac-merge/statistics | assembly-error-count | R |
| aMACMergeFrameSmdErrorCount | 30.14.1.9 | smd-error-count | R |
| aMACMergeFrameAssOkCount | 30.14.1.10 | assembly-ok-count | R |
| aMACMergeFragCountRx | 30.14.1.11 | fragment-count-rx | R |
| aMACMergeFragCountTx | 30.14.1.12 | fragment-count-tx | R |
| aMACMergeHoldCount | 30.14.1.13 | hold-count | R |

***Insert the following subclause between 5.3.1 and 5.3.2, and title it “****MAC-Merge Sublayer Tree Hierarchy”:*

module ieee802-ethenet-mac-merge

augment /if:interfaces/if:interface/ieee802-eth-if:ethernet:

+--rw mac-merge {mac-merge}?

+--rw admin-control

| +--rw merge-enable-tx? enumeration

| +--rw verify-disable-tx? enumeration

| +--rw verify-time? uint16

| +--rw frag-size? uint16

+--ro admin-status

| +--ro merge-support? enumeration

| +--ro verify-status? enumeration

| +--ro status-tx? enumeration

+--ro statistics

| +--ro assembly-error-count? yang:counter64

| +--ro smd-error-count? yang:counter64

| +--ro assembly-ok-count? yang:counter64

| +--ro fragment-count-rx? yang:counter64

| +--ro fragment-count-tx? yang:counter64

| +--ro hold-count? yang:counter64

***Insert the following subclause after 5.3.2.2 and title it “Ethernet MAC-Merge module”****:*

module ieee802-ethernet-mac-merge {

    yang-version "1.1";

  namespace "urn:ieee:std:802.3:yang:ieee802-ethernet-mac-merge";

  prefix "mac-merge";

  import ietf-yang-types {

    prefix yang;

    reference "IETF RFC 6991";

  }

  import ietf-interfaces {

    prefix if;

    reference "IETF RFC 8343";

  }

  import ieee802-ethernet-interface {

    prefix ieee802-eth-if;

    reference "IEEE Std 802.3.2-2019";

  }

  organization

   "IEEE Std 802.3 Ethernet Working Group

   Web URL: http://www.ieee802.org/3/";

  contact

   "Web URL: http://www.ieee802.org/3/";

  description

   "The Yang model for managing devices that support the MAC merge sublayer as defined in Clause 99.

    Unless otherwise indicated, the references in this model module are to IEEE Std 802.3-2018.";

  revision 2023-04-29 {

    description

     "Initial version.";

    reference

     "IEEE Std 802.3-2018";

  }

  feature mac-merge {

      description

       "Each Port supports the MAC merge sublayer.";

      reference

       "IEEE Std 802.3-2018";

    }

  augment "/if:interfaces/if:interface/ieee802-eth-if:ethernet" {

        if-feature mac-merge;

        container mac-merge {

            container admin-control {

                leaf merge-enable-tx {

                    type enumeration {

                        enum "Disabled" {

                            description

                                "Transmit preemption is disabled";

                        }

                        enum "Enabled" {

                            description

                                "Transmit preemption is enabled";

                        }

                    }

                    default "Disabled";

                    description

                        "This attribute indicates (when accessed via a GET operation) the status of the MAC

Merge sublayer on the given device in the transmit direction. The status of the

MAC Merge sublayer may be modified to the indicated value via a SET operation.

This attribute maps to the variable pEnable (see 99.4.7.3).";

                    reference

                        "30.14.1.3";

                }

                 leaf verify-disable-tx {

                     type enumeration {

                         enum "Disabled" {

                                description

                                    "Verify is disabled";

                            }

                            enum "Enabled" {

                                description

                                    "Verify is enabled";

                            }

                     }

                     default "Disabled";

                     description

                         "This attribute indicates (when accessed via a GET operation) the status of the

Verify function of MAC Merge sublayer on the given device in the transmit direction. The status of the Verify function may be modified to the indicated value via a SET operation. This attribute maps to the variable disableVerify (see 99.4.7.3).;";

                     reference

                         "30.14.1.4";

                 }

                 leaf verify-time {

                     type uint16 {

                        range "1..128";

                     }

                     default "10";

                     description

                         "The value of this attribute defines the nominal wait time between verification

attempts in milliseconds. Valid range is 1 to 128 inclusive. The default value is 10. This attribute maps to the variable verifyTime (see 99.4.7.3).;";

                     reference

                         "30.14.1.6";

                 }

                 leaf frag-size {

                     type uint16 {

                         range "0..3";

                     }

                     default "0";

                     description

                         "A 2-bit integer value used to indicate the value of addFragSize variable used by

the Transmit Processing State Diagram (see Figure 99?).";

                     reference

                         "30.14.1.7";

                 }

            }

            container admin-status {

                 config false;

                 leaf merge-support {

                     type enumeration {

                            enum "Supported" {

                                description

                                    "MAC Merge sublayer is supported on the device";

                            }

                            enum "Not Supported" {

                                description

                                    "MAC Merge sublayer is not supported on the device";

                            }

                         }

                     description

                         "This attribute indicates (when accessed via a GET operation) whether the given

device supports a MAC Merge sublayer. The SET operation shall have no effect on a

device.";

                     reference

                         "30.14.1.1";

                 }

                 leaf verify-status {

                     type enumeration {

                         enum "unknown" {

                             description

                               "Verification status is unknown";

                         }

                         enum "initial" {

                             description

                                 "The Verify State diagram (Figure 99?) is in the state

                                 INIT\_VERIFICATION";

                         }

                         enum "verifying" {

                             description

                                 "The Verify State diagram is in the state VERIFICATION\_IDLE,

                                 SEND\_VERIFY or WAIT\_FOR\_RESPONSE";

                         }

                         enum "succeeded" {

                             description

                                 "Indicates that the Verify State diagram is in the state VERIFIED";

                         }

                         enum "failed" {

                             description

                                 "The Verify State diagram is in the state VERIFY\_FAIL";

                         }

                         enum "disabled" {

                             description "Verification of preemption operation is disabled";

                         }

                     }

                     description

                         "This attribute indicates (when accessed via a GET operation) the status of the

MAC Merge sublayer verification on the given device. The SET operation shall have

no effect on a device.";

                     reference

                         "30.14.1.2";

                 }

                 leaf status-tx {

                     type enumeration {

                         enum "unknown" {

                             description

                                 "transmit preemption status is unknown";

                         }

                         enum "inactive" {

                             description

                                 "transmit preemption is inactive";

                         }

                         enum "active" {

                             description

                                 "transmit preemption is active";

                         }

                     }

                     description

                         "This attribute indicates (when accessed via a GET operation) the status of the

MAC Merge sublayer on the given device in the transmit direction. The SET

operation shall have no effect on a device. This attribute maps to the variable

preempt (see 99.4.7.3).";

                     reference

                         "30.14.1.5";

                 }

            }

            container statistics {

                 config false;

                 leaf assembly-error-count {

                     type yang:counter64;

                     description

                         "A count of MAC frames with reassembly errors. The counter is incremented by one

every time the ASSEMBLY\_ERROR state in the Receive Processing State Diagram is

entered";

                     reference

                         "30.14.1.8";

                 }

                 leaf smd-error-count {

                     type yang:counter64;

                     description

                         "A count of received MAC frames / MAC frame fragments rejected due to unknown SMD

value or arriving with an SMD-C when no frame is in progress. The counter is

incremented by one every time the BAD\_FRAG state in the Receive Processing State

Diagram is entered and every time the WAIT\_FOR\_DV\_FALSE state is entered due to

the invocation of the SMD\_DECODE function returning the value ERR";

                     reference

                         "30.14.1.9";

                 }

                 leaf assembly-ok-count {

                     type yang:counter64;

                     description

                         "count of MAC frames that were successfully reassembled and delivered to MAC. The

counter is incremented by one every time the FRAME\_COMPLETE state in the Receive

Processing state diagram (see Figure 99-6) is entered if the state

CHECK\_FOR\_RESUME was previously entered while processing the packet";

                     reference

                         "30.14.1.10";

                 }

                 leaf fragment-count-rx {

                     type yang:counter64;

                     description

                         "A count of the number of additional mPackets received due to preemption. The

counter is incremented by one every time the state CHECK\_FRAG\_CNT in the Receive

Processing State Diagram (see Figure 99-6) is entered";

                     reference

                         "30.14.1.11";

                 }

                 leaf fragment-count-tx {

                     type yang:counter64;

                     description

                         "A count of the number of additional mPackets transmitted due to preemption. This

counter is incremented by one every time the SEND\_SMD\_C state in the Transmit

Processing State Diagram (see Figure 99-5) is entered.;";

                     reference

                         "30.14.1.12";

                 }

                 leaf hold-count {

                     type yang:counter64;

                     description

                         "A count of the number of times the variable hold (see 99.4.7.3) transitions from

FALSE to TRUE.";

                     reference

                         "30.14.1.13";

                 }

            }

    }

  }

}