**Table 5-1 Mapping between IEEE Std 802.3, Clause 30 managed objects and ieee802-ethernet-interface YANG data nodes**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **IEEE Std 802.3, Clause 30** | | **Reference** | **Corresponding ieee802-ethernet-interface YANG data nodes** | | |
| **Managed object(s)** | **Attribute(s)** | **Container(s)** | **Data node(s)** | **r/w** |
| N/A | N/A |  | interfaces/ interface/ ethernet/ | auto-negotiation/enable | rw |
| N/A | N/A |  | negotiation-status | ro |
| N/A | N/A |  | flow-control/pause/direction | rw |
| oMACControlFunctionEntity | aPAUSEMACCtrlFramesReceived |  | flow-control/pause/statitics/in-pkts-pause | ro |
| aPAUSEMACCtrlFramesTransmitted |  | flow-control/pause/statitics/out-pkts-pause | ro |
| N/A | N/A |  | flow-control/pfc{ethernet-pfc} /enable | rw |
| N/A | dot3HCInPFCFrames |  | flow-control/pfc{ethernet-pfc} /statistics/in-pkts-pfc | ro |
| N/A | dot3HCOutPFCFrames |  | flow-control/pfc{ethernet-pfc} /statistics/out-pkts-pfc | ro |
| N/A | N/A |  | flow-control/force-flow-control | rw |
| N/A | N/A |  | speed | rw |
| oMACEntity | aDuplexStatus |  | duplex | rw |
| aMaxFrameLength |  | max-frame-length | ro |
| aSlowProtocolFrameLimit |  | frame-limit-slow-protocol | ro |
| oEXTENSION | aEXTENSIONMACCtrlStatus |  | macc-extension-control | ro |
|  |  |  | capabilities/auto-negotiation | ro |
| oMACEntity | no direct objecta |  | interfaces/ interface/ethernet/statistics/frame | in-total-pkts | ro |
| N/A | etherStatsOctets | RMON MIB | in-total-octets | ro |
| oMACEntity | aFramesReceivedOK |  | in-pkts | ro |
| aMulticastFramesReceivedOK |  | in-multicast-pkts | ro |
| aBroadcastFramesReceivedOK |  | in-broadcast-pkts | ro |
| aFrameCheckSequenceErrors+aAlignmentErrors |  | in-error-fcs-pkts | ro |
| N/A | etherStatsUndersizePkts+etherStatsFragments | RMON MIB | in-error-undersize-pkts | ro |
| oMACEntity | aFrameTooLongErrors |  | in-error-oversize-pkts | ro |
| aFramesLostDueToIntMACRcvError |  | in-error-mac-internal-pkts | ro |
| aFramesTransmittedOK |  | out-pkts |  |
| aMulticastFramesXmittedOK |  | out-multicaset-pkts | ro |
| aBroadcastFramesXmittedOK |  | out-broadcast-pkts | ro |
| aFramesLostDueToIntMACXmitError |  | out-error-mac-internal-pkts | ro |
| oPHYEntity | aSymbolErrorDuringCarrier |  | interfaces/ interface/ ethernet/statistics/phy | in-error-symbol | ro |
| aReceiveLPITransitions |  | interfaces/ interface/ ethernet/statistics/phy/lpi | in-lpi-transitions | ro |
| aReceiveLPIMicroseconds |  | in-lpi-time | ro |
| aTransmit |  | out-lpi-transitions | ro |
| aTransmitLPIMicroseconds |  | out-lpi-time | ro |
| oMACControlEntity | aUnsupportedOpcodesReceived |  | interfaces/ interface/ ethernet/statistics/mac-control | in-pkts-macc-unknown | ro |
| oEXTENSION | aEXTENSIONMACCtrlFramesReceived |  | in-pkts-macc-extension | ro |
| aEXTENSIONMACCtrlFramesTransmitted |  | out-pkts-macc-extension | ro |

**Table 5-2 Mapping between IEEE Std 802.3, Clause 30 managed objects and ieee802-ethernet-interface-legacy YANG data nodes**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **IEEE Std 802.3, Clause 30** | | **Reference** | **Corresponding ieee802-ethernet-interface-legacy YANG data nodes** | | |
| **Managed object(s)** | **Attribute(s)** | **Container(s)** | **Data node(s)** | **r/w** |
| oMACEntity | aRateControlAbility |  | interfaces/ interface/ ethernet/ | dynamic-rate-control | rw |
|  |  | interfaces/ interface/ ethernet/capabilities | dynamic-rate-control-supported | ro |
| oPHYEntity | aSQETestErrors |  | interfaces/ interface/ ethernet/statistics/frame/csma-cd{csma-cd} | in-error-sqe-test | ro |
| oMACEntity | aSingleCollisionFrames |  | out-pkts-collision-single | ro |
| aMultipleCollisionFrames |  | out-pkts-collision-multiple | ro |
| aFramesWithDeferredXmissions |  | out-pkts-deferred | ro |
| aFramesAbortedDueToXSColls |  | out-pkts-collisions-excessive | ro |
| aLateCollisions |  | out-collisions-late | ro |
| aCarrierSenseErrors |  | out-errors-carrier-sense | ro |
| aCollisionFrames |  | collision-histogram/collision-count | ro |
|  | collision-histogram/collision-count-pkts | ro |

**Table 6-1 Mapping between IEEE Std 802.3, Clause 30 managed objects and ieee802-ethernet-pse YANG data nodes**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **IEEE Std 802.3, Clause 30** | | **Reference** | **Corresponding ieee802-ethernet-interface-legacy YANG data nodes** | | |
| **Managed object(s)** | **Attribute(s)** | **Container(s)** | **Data node(s)** | **r/w** |
| N/A | N/A |  | interfaces/ interface/ ethernet/poe-pse | pse-pair-mode | ro |
| oPSE | aPSEAdminState | 30.9.1 | interfaces/ interface/ ethernet/poe-pse/multi-pair | pse-enable | rw |
| aPSEPowerPairs | powering-pairs | rw |
| aPSEPowerPairsControlAbility | pairs-control-ability | ro |
| aPSEPowerDetectionStatus | detection-status | ro |
| aPSEPowerClassification | classifications | ro |
| aPSEActualPower | actual-power | ro |
| aPSEPowerAccuracy | power-accuracy | ro |
| aPSEPowerDeniedCounter | interfaces/ interface/ ethernet/poe-pse/multi-pair/poe-statistics | power-denied | ro |
| aPSEInvalidSignatureCounter | invalid-signature | ro |
| aPSEMPSAbsentCounter | mps-absent | ro |
| aPSEOverLoadCounter | overload | ro |
| aPSEShortCounter | short | ro |
| aPSECumulativeEnergy | cumulative-energy | ro |
| oPoDLPSE | aPoDLPSEAdminState | 30.15 | interfaces/ interface/ ethernet/poe-pse/single-pair | pse-enable | rw |
| aPoDLPSEPowerDetectionStatus | detection-status | ro |
| aPoDLPSEType | pse-type | ro |
| aPoDLPSEDetectedPDType | detected-pd-type | ro |
| aPoDLPSEDetectedPDPowerClass | pd-power-class | ro |
| aPoDLPSEActualPower | actual-power | ro |
| aPoDLPSEPowerAccuracy | power-accuracy |  |
| aPoDLPSEPowerDeniedCounter | interfaces/ interface/ ethernet/poe-pse/single-pair/poe-statistics | power-denied | ro |
| aPoDLPSEInvalidSignatureCounter | invalid-signature | ro |
| aPoDLPSEInvalidClassCounter | invalid-class | ro |
| aPoDLPSEOverLoadCounter | overload | ro |
| aPoDLPSEMaintainFullVoltageSignatureAbsentCounter | fvs-absence | ro |
| aPoDLPSECumulativeEnergy | cumulative-energy | ro |

**Table 8-1 Mapping between IEEE Std 802.3, Clause 30 managed objects and ieee802-ethernet-link-oam YANG data nodes**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **IEEE Std 802.3, Clause 30** | | **Reference** | **Corresponding ieee802-ethernet-link-oam YANG data nodes** | | |
| **Managed object(s)** | **Attribute(s)** | **Container(s)** | **Data node(s)** | **r/w** |
| oOAM | aOAMAdminState | 30.3.6.1.2 | interfaces/interface/ethernet/link-oam | admin | rw |
|  | {TBD} | {TBD} | rx-fault | ro |
|  | dot3OamOperStatus  aOAMDiscoveryState  aOAMLocalFlagsField  aOAMRemoteFlagsField | IEEE Std 802.3.1  30.3.6.1.4  30.3.6.1.10  30.3.6.1.11 | interfaces/interface/ethernet/link-oam/discovery-info/local | operational-status | rw |
|  | aOAMLocalState | 30.3.6.1.14 |  | loopback-mode | ro |
|  | aOAMMode | 30.3.6.1.3 |  | mode | rw |
|  | aOAMLocalRevision | 30.3.6.1.12 |  | revision | ro |
|  | aOAMLocalPDUConfiguration | 30.3.6.1.8 |  | mtu | ro |
|  | aOAMLocalConfiguration | 30.3.6.1.6 | interfaces/interface/ethernet/link-oam/discovery-info/local/functions-supported | uni-directional-link-fault | rw |
|  | loopback | rw |
|  | mib-retrieval | rw |
|  | aOAMLocalConfiguration | aOAMLocalConfiguration | interfaces/interface/ethernet/link-oam/discovery-info/local/functions-supported/link-monitor | link-monitoring | rw |
|  | aOAMLocalErrSymPeriodConfig  aOAMLocalErrFrameConfig  aOAMLocalErrFramePeriodConfig  aOAMLocalErrFrameSecsSummaryConfig  aOAMLocalErrSymPeriodConfig | 30.3.6.1.34  30.3.6.1.36  30.3.6.1.38  30.3.6.1.40  30.3.6.1.42 | interfaces/interface/ethernet/link-oam/discovery-info/local/functions-supported/link-monitor/event-type | threshold-type  window  threshold | rw |
|  | rw |
|  | rw |
|  | aOAMRemoteMACAddress | 30.3.6.1.5 | interfaces/interface/ethernet/link-oam/discovery-info/remote | mac-address | ro |
|  | aOAMRemoteVendorOUI | 30.3.6.1.16 | vendor-oui | ro |
|  | aOAMRemoteVendorSpecificInfo | 30.3.6.1.17 | vendor-info | ro |
|  | aOAMRemoteState | 30.3.6.1.15 | loopback-mode | ro |
|  | aOAMMode | 30.3.6.1.3 | mode | ro |
|  | aOAMRemoteRevision | 30.3.6.1.13 | revision | ro |
|  | aOAMRemotePDUConfiguration | 30.3.6.1.9 | mtu | ro |
|  | aOAMRemoteConfiguration | 30.3.6.1.7 | interfaces/interface/ethernet/link-oam/discovery-info/remote/functions-supported | uni-directional-link-fault | ro |
|  | loopback | ro |
|  | link-monitoring | ro |
|  | mib-retrieval | ro |
|  | dot3OamEventLogEntry | IEEE Std 802.3.1 | interfaces/interface/ethernet/link-oam/event-log/event-log-entry | index | ro |
|  | oui | ro |
|  | timestamp | ro |
|  | location | ro |
|  | event-type | ro |
|  | running-total | ro |
|  | event-total | ro |
|  | aOAMLocalErrSymPeriodEvent  aOAMLocalErrFrameEvent  aOAMLocalErrFramePeriodConfig  aOAMLocalErrFrameSecsSummaryEvent  aOAMRemoteErrSymPeriodEvent  aOAMRemoteErrFrameEvent  aOAMRemoteErrFramePeriodEvent  aOAMRemoteErrFrameSecsSummaryEvent | 30.3.6.1.35  30.3.6.1.37  30.3.6.1.38  30.3.6.1.41  30.3.6.1.42  30.3.6.1.43  30.3.6.1.44  30.3.6.1.45 | interfaces/interface/ethernet/link-oam/event-log/event-log-entry/threshold | threshold-event-type  window  threshold  value | ro |
|  | ro |
|  | ro |
|  | ro |
|  | Dot3OamStatsEntry | RFC-4878 | interfaces/interface/ethernet/link-oam/statistics | information-tx | ro |
|  | aOAMInformationTx | 30.3.6.1.20 |  |
|  | aOAMInformationRx | 30.3.6.1.21 | information-rx | ro |
|  | aOAMUniqueEventNotificationTx | 30.3.6.1.22 | unique-event-notification-tx | ro |
|  | aOAMUniqueEventNotificationRx | 30.3.6.1.24 | unique-vent-notification-rx | ro |
|  | aOAMDuplicateEventNotificationTx | 30.3.6.1.23 | duplicate-event-notification-tx | ro |
|  | aOAMDuplicateEventNotificationRx | 30.3.6.1.25 | duplicate-event-notification-rx | ro |
|  | aOAMLoopbackControlTx | 30.3.6.1.26 | loopback-control-tx | ro |
|  | aOAMLoopbackControlRx | 30.3.6.1.27 | loopback-control-rx | ro |
|  | aOAMVariableRequestTx | 30.3.6.1.28 | variable-request-tx | ro |
|  | aOAMVariableRequestRx | 30.3.6.1.29 | variable-request-rx | ro |
|  | aOAMVariableResponseTx | 30.3.6.1.30 | variable-response-tx | ro |
|  | aOAMVariableResponseRx | 30.3.6.1.31 | variable-response-rx | ro |
|  | aOAMOrganizationSpecificTx | 30.3.6.1.32 | org-specific-tx | ro |
|  | aOAMOrganizationSpecificRx | 30.3.6.1.33 | org-specific-rx | ro |
|  | aOAMUnsupportedCodesTx | 30.3.6.1.18 | unsupported-codes-tx | ro |
|  | aOAMUnsupportedCodesRx | 30.3.6.1.19 | unsupported-codes-rx | ro |
|  | aFramesLostDueToOAMError | 30.3.6.1.46 | frames-lost=due-to-oam | ro |
|  | aOAMLocalErrSymPeriodEvent, Errored Symbols | 30.3.6.1.35 | local-error-symbol-period-log-entries | ro |
|  | aOAMLocalErrFrameEvent, Errored Frames | 30.3.6.1.37 | local-error-frame-log-entries | ro |
|  | aOAMLocalErrFramePeriodEvent, Errored Frames | 30.3.6.1.39 | local-error-frame-period-log-entries | ro |
|  | aOAMLocalErrFrameSecsSummaryEvent, Errored  Frame Seconds Summary | 30.3.6.1.41 | local-error-frame-second-log-entries | ro |
|  | aOAMRemoteErrSymPeriodEvent, Errored Symbols | 30.3.6.1.42 | remote-error-symbol-period-log-entries | ro |
|  | aOAMRemoteErrFrameEvent, Errored Frames | 30.3.6.1.43 | remote-error-frame-log-entries | ro |
|  | aOAMRemoteErrFramePeriodEvent, Errored Frames | 30.3.6.1.44 | remote-error-frame-period-log-entries | ro |
|  | aOAMRemoteErrFrameSecsSummaryEvent, Errored Frame Seconds Summary | 30.3.6.1.45 | remote-error-frame-second-log-entries | ro |