Content

[2 Classes 1](#_Toc13400135)

[2.1 CurrentPerformance 1](#_Toc13400136)

[2.2 CurrentProblem 3](#_Toc13400137)

[2.3 HistoricalPerformance 4](#_Toc13400138)

[2.4 MacInterfaceCapability 6](#_Toc13400139)

[2.5 MacInterfaceConfiguration 10](#_Toc13400140)

[2.6 MacInterfaceCurrentPerformance 15](#_Toc13400141)

[2.7 MacInterfaceCurrentProblem 15](#_Toc13400142)

[2.8 MacInterfaceHistoricalPeformance 16](#_Toc13400143)

[2.9 MacInterfaceLpSpec 17](#_Toc13400144)

[2.10 MacInterfaceStatus 17](#_Toc13400145)

[2.11 MacInterface\_Pac 23](#_Toc13400146)

[3 Data Types 24](#_Toc13400147)

[3.1 MacInterfaceCurrentPerformanceType 24](#_Toc13400148)

[3.2 MacInterfaceCurrentProblemType 25](#_Toc13400149)

[3.3 MacInterfaceHistoricalPerformanceType 25](#_Toc13400150)

[3.4 MacInterfacePerformanceType 26](#_Toc13400151)

[3.5 ProblemKindSeverityType 29](#_Toc13400152)

[4 Enumeration Types 30](#_Toc13400153)

[4.1 AdministrativeStateType 30](#_Toc13400154)

[4.2 FlowControlModeType 30](#_Toc13400155)

[4.3 FragmentationType 31](#_Toc13400156)

[4.4 FrameFormatType 31](#_Toc13400157)

[4.5 GranularityPeriodType 31](#_Toc13400158)

[4.6 InterfaceStatusType 32](#_Toc13400159)

[4.7 LoopBackType 32](#_Toc13400160)

[4.8 OperationalStateType 33](#_Toc13400161)

[4.9 SeverityType 33](#_Toc13400162)

[4.10 loopDetectionResultType 33](#_Toc13400163)

[5 Primitive Types 33](#_Toc13400164)

# Classes

## CurrentPerformance

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for CurrentPerformance

Table 1: Attributes for CurrentPerformance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| timestamp | DateTime  2010-11-20T14:00:00+01:00 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | The timestamp associated with when the current data was collected. |
| suspectIntervalFlag | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | This attribute is used to indicate that the performance data for the current period may not be reliable. Some reasons for this to occur are: – Suspect data were detected by the actual resource doing data collection. – Transition of the administrativeState attribute to/from the 'lock' state. – Transition of the operationalState to/from the 'disabled' state. – Scheduler setting that inhibits the collection function. – The performance counters were reset during the interval. – The currentData (or subclass) object instance was created during the monitoring period. |
| elapsedTime | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: s  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | Number of seconds that elapsed since the last reset of the counter. |
| scannerId | String  Scanner ID not defined. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| operationalState | OperationalStateType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| granularityPeriod | GranularityPeriodType  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 1  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Time period between reset of the underlying counter. |
| administrativeState | AdministrativeStateType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| objectClass | ObjectIdentifier  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | ObjectClass ::= CHOICE{ globalForm [0] OBJECT IDENTIFIER, localForm [1] INTEGER} |
| nameBinding | ObjectIdentifier  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| packages | ObjectIdentifier  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| allomorphs | ObjectIdentifier  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |

## CurrentProblem

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for CurrentProblem

Table 1: Attributes for CurrentProblem

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| sequenceNumber | Integer  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 1  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_16\_BIT | Unique sequence number of the current problem object. |
| timeStamp | DateTime  2010-11-20T14:00:00+01:00 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| problemSeverity | SeverityType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Severity of the alarm. |

## HistoricalPerformance

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for HistoricalPerformance

Table 1: Attributes for HistoricalPerformance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| suspectIntervalFlag | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | This attribute indicates that the data collected during the interval is suspect. |
| historyDataId | String  History Data ID not defined. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| periodEndTime | DateTime  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 1  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Time when the counter values have been recorded and the counter reset. |
| granularityPeriod | GranularityPeriodType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Time period between reset of the underlying counter. |
| objectClass | ObjectIdentifier  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | ObjectClass ::= CHOICE{ globalForm [0] OBJECT IDENTIFIER, localForm [1] INTEGER} |
| nameBinding | ObjectIdentifier  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| packages | ObjectIdentifier  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| allomorphs | ObjectIdentifier  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |

## MacInterfaceCapability

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for MacInterfaceCapability

Table 1: Attributes for MacInterfaceCapability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| hardwareMacAddress | MacAddress  00:00:00:00:00:00 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Hardware MAC address of the interface. |
| macAddressConfigurationIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Device supports overwriting the hardware MAC address. |
| maximumFrameSizeMin | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: s  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_16\_BIT | Minimum configurable value of the maximum Ethernet frame size in Byte. |
| maximumFrameSizeMax | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: s  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_16\_BIT | Maximum configurable value of the maximum Ethernet frame size in Byte. |
| supportedFrameFormatList | FrameFormatType  NOT\_YET\_DEFINED | 1..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | List of supported Ethernet frame formats |
| supportedFlowControlModeList | FlowControlModeType  NOT\_YET\_DEFINED | 1..5 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | List of potential configurations of the Flow Control. |
| linkLossForwardingIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Sending a Link Loss message in case of link failure is supported by the device. |
| broadcastFrameSuppressionIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Interface is supporting limiting the maximum share of broadcast frames. |
| ingressShapingIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Shaping on the ingress is available at this interface. |
| egressShapingIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Shaping on the egress is available at this interface. |
| loopPortShutDownIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Device is supporting automated shut down of ports, which are affected by an Ethernet loop. |
| loopDetectionIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Device is supporting a feature for detecting Ethernet loops on this interface. |
| adminShutDownIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Manual switching on and off of the interface without deleting it (underlying OSI network layers are also not affected) is available. |
| supportedLoopBackKindList | LoopBackType  NOT\_YET\_DEFINED | 1..3 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | List of supported kinds of looping back. |
| maintenanceTimerRange | String  Range of the maintenance timer not yet defined. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Available time periods for maintenance configurations to be described. Concrete values shall be separated by commas (e.g. '10, 60, 360'). Ranges shall be expressed as two values separated by a minus (e.g. '10-360'). |
| statisticsIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Continuous statistics counters are available. |
| supportedAlarmList | String  Supported Alarms Not Yet Defined | 2..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Available alarms to be listed. Mandatory: 'MacInterfaceDown' and 'FrameSizeMissmatch'. Further alarms might be added by the device vendors. |
| performanceMonitoringIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | 1 = Collection and aggregation of performance values is available. |

## MacInterfaceConfiguration

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for MacInterfaceConfiguration

Table 1: Attributes for MacInterfaceConfiguration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| interfaceName | String  Interface name not yet defined. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Description of the interface, could be a name, could be a number. Free text field to be filled by the operator. |
| interfaceIsOn | Boolean  false | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Only relevant if (adminShutDownIsAvail==1). 1 = Activation of the interface. 0 = De-activation of the interface without deleting it (underlying OSI network layers are not affected). |
| macAddressConfigurationIsOn | Boolean  false | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Only relevant if (macAddressConfigurationIsAvail==1). 1 = Activates overwriting the hardware MAC address by MacInterfaceConfiguration::configuredMacAddress. |
| configuredMacAddress | MacAddress  00:00:00:00:00:00 | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Only relevant if (macAddressConfigurationIsAvail==1 AND macAddressConfigurationIsOn==1). Overwriting the hardware MAC address with the configured value. |
| maximumFrameSize | Integer  -1 | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: Byte  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: LENGTH\_16\_BIT | This value describes the maximum size of the Ethernet frame (in Byte) before sending. |
| fragmentationAllowed | FragmentationType  NOT\_YET\_DEFINED | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NA  • bitLength: NA |  |
| transmittedFrameFormat | FrameFormatType  NOT\_YET\_DEFINED | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Configuration of the format of the transmitted Ethernet frames. |
| flowControlMode | FlowControlModeType  NOT\_YET\_DEFINED | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Configures the mode of operation of Flow Control according to IEEE 802.3x on this interface. |
| linkLossForwardingIsOn | Boolean  false | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | 1 = Sending a Link Loss message in case of link failure is activated. |
| linkLossForwardingDelay | Integer  -1 | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: 100ms  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: LENGTH\_8\_BIT | Delay (in 100ms steps) between a detected link failure and sending of a Link Loss message. In case of 1+1 hot stand by protection of a microwave, make sure configured value is higher than 5 (500ms). |
| broadcastFrameSuppressionIsOn | Boolean  false | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | 1 = Limiting the share of broadcast frames is activated. |
| maximumShareOfBroadcastFrames | Integer  -1 | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: %  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: LENGTH\_8\_BIT | Threshold for Broadcast frames becoming discarded in %. Value range from 0 to 100. |
| loopPortShutDownIsOn | Boolean  false | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | 1 = Feature for automated shut down in case of an Ethernet loop is activated on this interface. |
| loopDetectionIsOn | Boolean  false | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Maintenance Feature. 1 = Checking for Ethernet loops on this interface is currently switched on. |
| loopBackKindOn | LoopBackType  NOT\_YET\_DEFINED | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Maintenance Feature. Configuration of a loop back of Ethernet frames on this interface. |
| maintenanceTimer | Integer  -1 | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: s  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: LENGTH\_32\_BIT | Time of existence of any maintenance configuration. 0 = maintenance timer is switched off. Valid values are defined in \*Capability::maintenanceTimerRange. |
| statisticsIsOn | Boolean  false | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Only relevant if (statisticsIsAvail==1). 1 = Continuous statistics counters are switched on. |
| problemKindSeverityList | ProblemKindSeverityType  ./. | 2..\* | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Severity of each entry of the SupportedAlarmList to be configured. |
| performanceMonitoringCollectionIsOn | Boolean  false | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Only relevant if (performanceMonitoringIsAvail==1). 1 = Collection and aggregation of performance values is switched on. |

## MacInterfaceCurrentPerformance

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for MacInterfaceCurrentPerformance

Table 1: Attributes for MacInterfaceCurrentPerformance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| currentPerformanceDataList | MacInterfaceCurrentPerformanceType  ./. | 1..2 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |

## MacInterfaceCurrentProblem

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for MacInterfaceCurrentProblem

Table 1: Attributes for MacInterfaceCurrentProblem

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| currentProblemList | MacInterfaceCurrentProblemType  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |

## MacInterfaceHistoricalPeformance

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for MacInterfaceHistoricalPeformance

Table 1: Attributes for MacInterfaceHistoricalPeformance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| historicalPerformaceData | MacInterfaceHistoricalPerformanceType  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |

## MacInterfaceLpSpec

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: YES
* objectDeletionNotification: YES
* OpenModelClass
* support: MANDATORY

Attributes for MacInterfaceLpSpec

Table 1: Attributes for MacInterfaceLpSpec

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_macInterface\_Pac | MacInterface\_Pac  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |

## MacInterfaceStatus

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for MacInterfaceStatus

Table 1: Attributes for MacInterfaceStatus

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| interfaceStatus | InterfaceStatusType  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Operational status of the interface. |
| macAddressCur | MacAddress  00:00:00:00:00:00 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | If (macAddressConfigurationIsAvail==0), maxAddressCur = MacInterfaceCapability::hardwareMacAddress. If (macAddressConfigurationIsAvail==1 AND macAddressConfigurationIsOn==1), maxAddressCur = MacInterfaceConfiguration::configuredMacAddress. |
| receivedEthernetFrameFormatCur | FrameFormatType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Ethernet frame format of the currently received frames. |
| flowControlModeCur | FlowControlModeType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Currently operative mode (none, send, receive, both) of operation of the Flow Control according to IEEE 802.3x on this interface. |
| loopDetectionResult | loopDetectionResultType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Result of the Ethernet loop detection feature. |
| loopBackKindUp | LoopBackType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | The currently active (not just configured) type of loop back. |
| statisticsIsUp | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | 1 = Statistics are currently collected and aggregated. |
| performanceMonitoringIsUp | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | 1 = Performance values are currently collected and aggregated. |
| timeStamp | DateTime  2010-11-20T14:00:00+01:00 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| last10SecFrameInputRate | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame/s  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Frame receive rate at this MAC interface over the last 10 second interval. |
| last10SecFrameOutputRate | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame/s  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Frame transmit rate at this MAC interface over the last 10 second interval. |
| totalFamesInput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | The total number of Ethernet frames received at this MAC interface, including those received in error |
| totalFramesOutput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | The total number of Ethernet frames sent from this MAC interface. |
| forwardedFramesInput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | Number of input frames, for which the device was not their final destination and for which the device attempted to find a route to forward them to that final destination. |
| forwardedFramesOutput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | Number of frames, for which the device was not their final destination and for which it was successful in finding a path to their final destination. |
| unicastFramesInput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | Total number of received unicast frames. |
| unicastFramesOutput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | Total number of sent unicast frames. |
| multicastFramesInput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Total number of received multicast frames. |
| multicastFramesOutput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Total number of sent multicast frames. |
| broadcastFramesInput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Total number of received broadcast frames. |
| broadcastFramesOutput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Total number of sent broadcast frames. |
| fragmentedFramesInput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Total number of received fragmented frames. |
| erroredFramesInput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Total number of received errored frames. |
| erroredFramesOutput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Number of Ethernet frames, which were locally generated and discarded due to errors, including no route found to the destination. |
| droppedFramesInput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | Total number of Ethernet frames dropped at the receiver. The number of input Ethernet frames, for which no problems were encountered to prevent their continued processing, but were discarded (e.g., for lack of buffer space). |
| droppedFramesOutput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_32\_BIT | The number of output Ethernet frames, for which no problem was encountered to prevent their transmission to their destination, but were discarded (e.g., for lack of buffer space). |

## MacInterface\_Pac

Applied stereotypes:

* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO
* OpenModelClass
* support: MANDATORY

Attributes for MacInterface\_Pac

Table 1: Attributes for MacInterface\_Pac

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_macinterfacecapability | MacInterfaceCapability  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_macinterfaceconfiguration | MacInterfaceConfiguration  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_macinterfacestatus | MacInterfaceStatus  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_macinterfacecurrentproblem | MacInterfaceCurrentProblem  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_macinterfacecurrentperformance | MacInterfaceCurrentPerformance  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_macinterfacehistoricalpeformance | MacInterfaceHistoricalPeformance  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |

# Data Types

## MacInterfaceCurrentPerformanceType

Applied Stereotypes:

Attributes for MacInterfaceCurrentPerformanceType

Table 1: Attributes for MacInterfaceCurrentPerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| performanceData | MacInterfacePerformanceType  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA |  |

## MacInterfaceCurrentProblemType

Applied Stereotypes:

Attributes for MacInterfaceCurrentProblemType

Table 1: Attributes for MacInterfaceCurrentProblemType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| problemName | String  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA | Name of the alarm according to SupportedAlarmList |

## MacInterfaceHistoricalPerformanceType

Applied Stereotypes:

Attributes for MacInterfaceHistoricalPerformanceType

Table 1: Attributes for MacInterfaceHistoricalPerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| performanceData | MacInterfacePerformanceType  ./. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA |  |

## MacInterfacePerformanceType

Applied Stereotypes:

Attributes for MacInterfacePerformanceType

Table 1: Attributes for MacInterfacePerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| macControlFramesIngress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT | MAC layer control frames received on the interface. |
| macPauseFramesIngress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT | MAC layer Pause frames received on the interface. |
| oversizedFramesIngress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT | The total number of frames received that were longer than 1518 octets (excluding framing bits, but including FCS octets) and were otherwise well formed. |
| undersizedFramesIngress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT | The total number of frames received that were less than 64 octets long (excluding framing bits, but including FCS octets) and were otherwise well formed. |
| jabberFramesIngres | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT | Number of jabber frames received on the interface. Jabber frames are typically defined as oversize frames which also have a bad CRC. Implementations may use slightly different definitions of what constitutes a jabber frame. Often indicative of a NIC hardware problem. |
| fragmentedFramesIngress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | The total number of frames received that were less than 64 octets in length (excluding framing bits but including FCS octets) and had either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error). |
| taggedFramesIngress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Number of 802.1q tagged frames received on the interface. |
| macControlFramesEgress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT | MAC layer control frames sent on the interface. |
| macPauseFramesEgress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT | MAC layer Pause frames sent on the interface. |
| taggedFramesEgress | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Number of 802.1q tagged frames sent on the interface. |
| framesOf64Byte | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Number of packets (including bad packets) received that were 64 bytes in length (excluding framing bits but including FCS bytes). |
| framesOf65To127Byte | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Number of good and bad packets received that were between 65 and 127 bytes in length (excluding framing bits but including FCS bytes). |
| framesOf128To255Byte | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Number of good and bad packets received that were between 128 and 255 bytes in length inclusive (excluding framing bits but including FCS bytes). |
| framesOf256To511Byte | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Number of good and bad packets received that were between 256 and 511 bytes in length inclusive (excluding framing bits but including FCS bytes). |
| framesOf512To1023Byte | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Number of good and bad packets received that were between 512 and 1023 bytes in length inclusive (excluding framing bits but including FCS bytes). |
| framesOf1024To1518Byte | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: frame * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Number of good and bad packets received that were between 1024 and 1518 bytes in length inclusive (excluding framing bits but including FCS bytes). |

## ProblemKindSeverityType

Applied Stereotypes:

Attributes for ProblemKindSeverityType

Table 1: Attributes for ProblemKindSeverityType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| problemKindName | String  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA | Name of the alarm according to SupportedAlarmList |
| problemKindSeverity | SeverityType  NOT\_YET\_DEFINED | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: NA | Severity of this type of alarm. |

# Enumeration Types

## AdministrativeStateType

For more information on Administrative State, See ITU-T Recs. X.731 and M.3100.

Contains Enumeration Literals:

* UNLOCKED:
* LOCKED:
* SHUTTING\_DOWN:
* NOT\_YET\_DEFINED:

## FlowControlModeType

Contains Enumeration Literals:

* NONE:
  + Flow Control is switched off.
* SEND\_ONLY:
  + Only sending of pause frames according to IEEE 802.3x (Ethernet Flow Control).
* RECEIVE\_ONLY:
  + Only listening for incoming pause frames according to IEEE 802.3x (Ethernet Flow Control).
* SEND\_AND\_RECEIVE:
  + Sending and listening for pause frames according to IEEE 802.3x (Ethernet Flow Control).
* AUTO\_NEGOTIATION:
* NOT\_YET\_DEFINED:

## FragmentationType

Contains Enumeration Literals:

* DISABLE:
* ENABLE\_256\_BYTE:
* ENABLE\_512\_BYTE:
* NOT\_YET\_DEFINED:

## FrameFormatType

Contains Enumeration Literals:

* ETHERNET\_2:
* 802.2\_SNAP:
* 802.2\_LLC:
* 802.3:
* NOT\_YET\_DEFINED:

## GranularityPeriodType

The enumeration with the options for granularity period of the performance data.

Contains Enumeration Literals:

* UNKNOWN:
* PERIOD-15-MIN:
* PERIOD-24-HOURS:
* NOT\_YET\_DEFINED:

## InterfaceStatusType

Current Interface Status

Contains Enumeration Literals:

* UP:
  + Ready to pass packets.
* DOWN:
  + The interface does not pass any packets.
* SHUT\_DUE\_LOOP:
  + Only relevant if (loopPortShutDownIsAvail==1) AND (loopPortShutDownIsOn==1). 1 = port has been automatically shut down, because an Ethernet loop has been detected on this interface.
* TESTING:
  + In some test mode. No operational packets can be passed.
* UNKNOWN:
  + Status cannot be determined for some reason.
* DORMANT:
  + Waiting for some external event.
* NOT\_PRESENT:
  + Some component (typically hardware) is missing.
* LOWER\_LAYER\_DOWN:
  + Down due to state of lower-layer interface(s).
* ADMIN\_DOWN:
  + Down due to configuration.
* NOT\_YET\_DEFINED:

## LoopBackType

Contains Enumeration Literals:

* NONE:
* BACK\_TO\_LOCAL:
  + Returning Ethernet frames of the local site on the Ethernet MAC interface back to the local site.
* BACK\_TO\_REMOTE:
  + Returning Ethernet frames of the remote site on the Ethernet MAC interface back to the remote site.
* NOT\_YET\_DEFINED:

## OperationalStateType

The list of valid operational states for the connection.

Contains Enumeration Literals:

* ENABLED:
* DISABLED:
* NOT\_YET\_DEFINED:

## SeverityType

Contains Enumeration Literals:

* NON-ALARMED:
* WARNING:
* MAJOR:
* MINOR:
* CRITICAL:
* NOT\_YET\_DEFINED:

## loopDetectionResultType

Contains Enumeration Literals:

* LOOP\_DETECTED:
* NO\_LOOP\_DETECTED:
* DETECTION\_SWITCHED\_OFF:
* NOT\_YET\_DEFINED:

# Primitive Types