# Classes

## CurrentPerformance

Applied stereotypes:

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

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 |  |
| 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. |

## CurrentProblem

Applied stereotypes:

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

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:

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

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 |  |
| 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. |
| periodEndTime | DateTime  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 2  • 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. |

## VlanInterfaceCapability

Applied stereotypes:

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

Attributes for VlanInterfaceCapability

Table 1: Attributes for VlanInterfaceCapability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| supportedSubLayerProtocolNameList | SubLayerProtocolNameType  NOT\_YET\_DEFINED | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Lists the supported kinds of components. |
| supportedInterfaceKindList | InterfaceKindType  NOT\_YET\_DEFINED | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | type-capabilties. |
| taggingAndMvrpIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | capabilities::tagging. true = Interface supports tagging of frames and MVRP. |
| configuringIngressTagFilteringIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | capabilities::tagging. true = Configuring ingressTagFiltering is available. |
| ingressVlanIdFilteringIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | capabilities::ingress-filtering. true = Discarding ingress frames that are tagged with a VLAN ID, which is unknown to the interface, is available at the interface. false = Filtering happens only at the egress. |
| availablePcpBitsInterpretationKindList | PcpBitsInterpretationKindType  NOT\_YET\_DEFINED | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | List of the available ways of translating the PCP bits of the ingress frames into Priority values. |
| configuringPcpBitsDecodingIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | false = PCP-bits are decoded according to table 3 in chapter 6.9.3 of IEEE Std 802.1Q-2018; true = Device supports flexibly configuring the translation of PCP-bits values to Priority values and drop eligibility. |
| configuringPcpBitsEncodingIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | false = PCP-bits are encoded according to table 2 in chapter 6.9.3 of IEEE Std 802.1Q-2018; true = Device supports flexibly configuring the translation of Priority values and drop eligibility to PCP-bits values. |
| dropEligibleIndicatorIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | true = Decoding and encoding of the Drop Eligible Indicator (DEI) bit of the VLAN header is supported by the device. |
| numberOfAvailablePriorities | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_8\_BIT | Number of Priority values, which are supported at the device (usually 8 (0-7)). |
| receivedPriorityOverwritingIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | true = Device supports overwriting the Received Priority of the ingress frames with Regenerated Priority values. |
| vlanIdTranslationIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | true = Translation of VLAN IDs is available at this interface. |
| egressVlanIdTranslationIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | true = Separate translation table for VLAN IDs of egress frames is available. |
| portAndProtocolBasedVlanIsAvail | Boolean  false | 1 | R | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | protocol-based-vlan-classification. true = Restricting forwarding of frames of specific VLANs on specific protocols at this interface is available. Name in ieee802-dot1q-bridge.yang: protocol-based-vlan-classification. |
| maxNumberOfProtocolVlanIdGroupings | Integer  -1 | 1 | R | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_16\_BIT | max-vid-set-entries. Only meaningful if (portAndProtocolBasedVlanIsAvail==true) AND (subLayerProtocolName!=D\_BRIDGE\_COMPONENT). Maximum number of entries supported in the forwardedProtocolVidGroupingList at this interface. Name in ieee802-dot1q-bridge.yang: max-vid-set-entries. |
| serviceAccessPriorityTaggingIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | true = Adding a priority S-VLAN tag (no VID value) is available on this C\_VLAN\_BRIDGE\_PORT. |
| configuringServiceAccessPriorityMappingIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | true = Freely configuring of the mapping of Priority values to the PCP-bits values of the amended priority S-VLAN tag (no VID value) is available on this C\_VLAN\_BRIDGE\_PORT. |
| numberOfAvailableTrafficClasses | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_8\_BIT | Number of Traffic Classes (queues), which are supported at the device (usually 8). |
| restrictedAutomatedVlanRegistrationIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | false = The automated registration and modification of VLANs by the Multiple Registration Protocol (MRP) can not be restricted to those VIDs that already had a static entry. |
| 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 | false = 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 | true = Statistics collection and aggregation is supported on this interface. |
| supportedAlarmList | String  Supported Alarms Not Yet Defined | 0..\* | 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: 'VlanInterfaceDown' and 'MtuMissmatch'. 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 | true = Collection and aggregation of performance values is available. |

## VlanInterfaceConfiguration

Applied stereotypes:

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

Attributes for VlanInterfaceConfiguration

Table 1: Attributes for VlanInterfaceConfiguration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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 effective if (adminShutDownIsAvail==true). true = Activation of the interface. false = De-activation of the interface without deleting it (underlying OSI network layers are not affected). |
| subLayerProtocolName | SubLayerProtocolNameType  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 | component-name. Used to reference configured component kind. Name in ieee802-dot1q-bridge.yang: component-name. |
| interfaceKind | InterfaceKindType  NOT\_YET\_DEFINED | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | port-type. Indicates the capabilities of this port. Name in ieee802-dot1q-bridge.yang: port-type. |
| defaultVlanId | Integer  -1 | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: LENGTH\_64\_BIT | pvid. Not effective if (subLayerProtocolName==D\_BRIDGE\_COMPONENT). Untagged frames on the ingress of this VlanInterface get amended by a VLAN header and its 12 VID-bits (VLAN ID) get filled with the default VLAN ID (1-4094). If a value between 4096 and 4294967295 gets assigned, then it represents a local VLAN. Name in ieee802-dot1q-bridge.yang: pvid. |
| defaultPriority | Integer  -1 | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: LENGTH\_8\_BIT | default-priority. Untagged frames on the ingress of this VlanInterface get associated with this Priority value. Name in ieee802-dot1q-bridge.yang: default-priority. |
| ingressTagFiltering | IngressTagFilteringType  NOT\_YET\_DEFINED | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | acceptable-frame. Only effective if (configuringIngressTagFilteringIsAvail==true) AND (subLayerProtocolName!=D\_BRIDGE\_COMPONENT). Defines the type of frame acceptable at this interface. Name in ieee802-dot1q-bridge.yang: acceptable-frame. |
| ingressVlanIdFilteringIsOn | Boolean  false | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | enable-ingress-filtering. Only effective if (ingressVlanIdFilteringIsAvail==true) and (subLayerProtocolName!=D\_BRIDGE\_COMPONENT). true = Received frames with a VID that is unknown to the interface get discarded already at the ingress. Name in ieee802-dot1q-bridge.yang: enable-ingress-filtering. |
| pcpBitsInterpretationKind | PcpBitsInterpretationKindType  NOT\_YET\_DEFINED | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | pcp-selection. Defines how to decode and encode the values of the 3 Priority Code Point (PCP) bits of the VLAN header at this interface. Name in ieee802-dot1q-bridge.yang: pcp-selection. |
| pcpBitToPriorityMappingList | PcpBitsToPriorityMappingType  ./. | 0..8 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | pcp-decoding-table. Only effective if (configuringPcpBitsDecodingIsAvail==true). Configurable decoding of the PCP-bits of the ingress VLAN header into Priority values and drop eligibility. This attribute is shortening the ieee802-dot1q-bridge.yang from a table to a list, because it allows only configuring the values for the way of PCP bit interpretation, which is actually chosen in pcpBitsInterpretationKind. Name in ieee802-dot1q-bridge.yang: pcp-decoding-table. |
| pcpBitsEncodingMappingList | PriorityToPcpBitsMappingType  ./. | 0..16 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | pcp-encoding-table. Only effective if (configuringPcpBitsEncodingIsAvail==true). Configurable encoding of Priority value and drop eligibility into the PCP-bits of the ingress VLAN header. This attribute is shortening the ieee802-dot1q-bridge.yang from a table to a list, because it allows only configuring the values for the way of PCP bit interpretation, which is actually chosen in pcpBitsInterpretationKind. Name in ieee802-dot1q-bridge.yang: pcp-encoding-table. |
| dropEligibleIndicatorIsOn | Boolean  false | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | use-dei. Only effective if (dropEligibleIndicatorIsAvail==true). true = The Drop Eligible Indicator (DEI) bit of ingress VLAN header is decoded into drop eligibility and vice versa for egress frames. Name in ieee802-dot1q-bridge.yang: use-dei. |
| dropEligibleEncodingIsRequired | Boolean  false | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | drop-encoding. true = Queued frames, which have drop eligibility==true, get dropped, if the chosen pcpBitsInterpretationKind does not allow encoding the DEI bit set on true on the egress. Name in ieee802-dot1q-bridge.yang: drop-encoding. |
| receivedPriorityOverwritingIsOn | 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 effective if (receivedPriorityOverwritingIsAvail==true). true = Overwriting the Received Priority value derived from the PCP-bits of the ingress frame with the Regenerated Priority values listed in ingressPriorityOverwritingTable is activated. |
| receivedPriorityOverwritingList | ReceivedPriorityOverwritingType  ./. | 0..8 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | priority-regeneration. Only effective if (receivedPriorityOverwritingIsAvail==true) AND (receivedPriorityOverwritingIsOn==true). The Received Priority value derived from the PCP-bits of the ingress frame will be overwritten with the Regenerated Priority value from the list. Name in ieee802-dot1q-bridge.yang: priority-regeneration. |
| vlanIdTranslationIsOn | Boolean  false | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | enable-vid-translation-table. Only effective if (vlanIdTranslationIsAvail==true) AND (subLayerProtocolName!=D\_BRIDGE\_COMPONENT). If (vlanIdTranslationIsOn==true) AND (egressVlanIdTranslationIsOn==true), the VLAN IDs of ingress frames get translated according to the mapping, which is defined in vidTranslationMapping. If (vlanIdTranslationIsOn==true) AND (egressVlanIdTranslationIsOn==false), the mapping, which is defined in vidTranslationMapping, is used for both ingress and egress frames. Name in ieee802-dot1q-bridge.yang: enable-vid-translation-table. |
| externalToInternalVlanIdMappingList | ExternalToInternalVlanIdMappingType  ./. | 0..\* | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | vid-translations. Only effective if (subLayerProtocolName!=D\_BRIDGE\_COMPONENT). If (vlanIdTranslationIsOn==true) AND (egressVlanIdTranslationIsOn==true), the VLAN IDs of ingress frames get translated according to this mapping. If (vlanIdTranslationIsOn==true) AND (egressVlanIdTranslationIsOn==false), the VLAN IDs of both ingress and egress frames get mapped according to this mapping. Name in ieee802-dot1q-bridge.yang: vid-translations. |
| egressVlanIdTranslationIsOn | Boolean  false | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | enable-egress-vid-translation-table. Only effective if (egressVlanIdTranslationIsAvail==true) AND (subLayerProtocolName!=D\_BRIDGE\_COMPONENT). true = The VLAN IDs of egress frames get translated according to the mapping, which is defined in egressVidTranslationMapping. Name in ieee802-dot1q-bridge.yang: enable-egress-vid-translation-table. References: 12.10.1.9 of IEEE Std 802.1Q-2018 and 6.9 of IEEE Std 802.1Q-2018. |
| internalToEgressVlanIdMappingList | InternalToEgressVlanIdMappingType  ./. | 0..\* | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | egress-vid-translations. Only effective if (subLayerProtocolName!=D\_BRIDGE\_COMPONENT) AND (egressVlanIdTranslationIsOn==true). The VLAN IDs of egress frames get translated according to this mapping. Name in ieee802-dot1q-bridge.yang: egress-vid-translations. |
| portAndProtocolBasedVlanIsOn | 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 effective if (portAndProtocolBasedVlanIsAvail==true) AND (subLayerProtocolName!=D\_BRIDGE\_COMPONENT). true = Restricting forwarding of frames of specific VLANs on specific protocols at this interface is activated. |
| forwardedProtocolVlanIdGroupingList | ForwardedProtocolVlanIdGroupingType  ./. | 0..\* | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | protocol-group-vid-set. Only effective if (portAndProtocolBasedVlanIsOn==true). Associates lists of protocols with lists of VIDs to combinations, which are forwarded at this interface. Name in ieee802-dot1q-bridge.yang: protocol-group-vid-set. |
| serviceAccessPriorityTaggingIsOn | Boolean  false | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | service-access-priority-selection. Only effective if (serviceAccessPriorityTaggingIsAvail==true). true = Amending priority S-VLAN tags (no VID value) to egress frames at this C\_VLAN\_BRIDGE\_PORT is activated. Name in ieee802-dot1q-bridge.yang: service-access-priority-selection. |
| serviceAccessPriorityMappingList | ServiceAccessPriorityMappingType  ./. | 0..8 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | service-access-priority. Only effective if (serviceAccessPriorityTaggingIsOn==true) AND (configuringServiceAccessPriorityMappingIsAvail==true). The PCP-bits of the priority S-VLAN tag (no VID value), which is amended to the egress frames at this C\_VLAN\_BRIDGE\_PORT, are generated according to this table from the Priority value. Name in ieee802-dot1q-bridge.yang: service-access-priority. |
| priorityToTrafficClassMappingList | PriorityToTrafficClassMappingType  ./. | 0..8 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | traffic-class-map. Mapping of the Priority values into Traffic Classes (queues). This attribute is shortening the ieee802-dot1q-bridge.yang from a table to a list, because it allows only configuring the values for the number of traffic classes actually available at the device. Name in ieee802-dot1q-bridge.yang: traffic-class-map. |
| restrictedAutomatedVlanRegistrationIsOn | Boolean  false | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | enable-restricted-vlan-registration. Only effective if (restrictedAutomatedVlanRegistrationIsAvail==true) and (subLayerProtocolName!=D\_BRIDGE\_COMPONENT). true = Automated VLAN registration by the Multiple Registration Protocol (MRP) is restricted to those VIDs that already had a static entry. Name in ieee802-dot1q-bridge.yang: enable-restricted-vlan-registration. |
| adminPointToPoint | AdminPointToPointType  NOT\_YET\_DEFINED | 1 | RW | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | admin-point-to-point. For a port running spanning tree, this object represents the administrative point-to-point status of the LAN segment attached to this port, using the enumeration values of IEEE Std 802.1AC. A value of forceTrue(1) indicates that this port should always be treated as if it is connected to a point-to-point link. A value of forceFalse(2) indicates that this port should be treated as having a shared media connection. A value of auto(3) indicates that this port is considered to have a point-to-point link if it is an Aggregator and all of its members are aggregatable, or if the MAC entity is configured for full duplex operation, either through auto-negotiation or by management means. Manipulating this object changes the underlying adminPointToPointMAC. Name in ieee802-dot1q-bridge.yang: admin-point-to-point.  \*\*\*\*\*Potentially, this attribute should be part of an STP/RSTP/MSTP Interface definition and be deleted here. |
| 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 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 effective if (statisticsIsAvail==true). true = Continuous statistics counters are switched on. |
| problemKindSeverityList | ProblemKindSeverityType  ./. | 0..\* | 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. |
| performanceMonitoringIsOn | 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 effective if (performanceMonitoringIsAvail==true). true = Collection and aggregation of statistics is switched on. |

## VlanInterfaceCurrentPerformance

Applied stereotypes:

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

Attributes for VlanInterfaceCurrentPerformance

Table 1: Attributes for VlanInterfaceCurrentPerformance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| currentPerformanceDataList | VlanInterfaceCurrentPerformanceType  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| numberOfCurrentPerformanceSets | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_8\_BIT | Number of sets of current performance values, which are provided in the list. |

## VlanInterfaceCurrentProblem

Applied stereotypes:

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

Attributes for VlanInterfaceCurrentProblem

Table 1: Attributes for VlanInterfaceCurrentProblem

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| currentProblemList | VlanInterfaceCurrentProblemType  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| numberOfCurrentProblems | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_8\_BIT | Number of alarms, which are currently active on this interface. |
| timeOfLatestChange | 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 | Date and time when the list of alarms has been changed for the last time. |

## VlanInterfaceHistoricalPerformance

Applied stereotypes:

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

Attributes for VlanInterfaceHistoricalPerformance

Table 1: Attributes for VlanInterfaceHistoricalPerformance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| historicalPerformaceData | VlanInterfaceHistoricalPerformanceType  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA |  |
| numberOfHistoricalPerformanceSets | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_16\_BIT | Number of sets of historical performance values, which are provided in the list. |
| timeOfLatestChange | 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: LENGTH\_16\_BIT | Date and time when the list of sets of historical performance values has been changed for the last time (e.g. new one added or existing one deleted). |

## VlanInterfaceLpSpec

Applied stereotypes:

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

Attributes for VlanInterfaceLpSpec

Table 1: Attributes for VlanInterfaceLpSpec

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_vlanInterface\_Pac | VlanInterface\_Pac  ./. | 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 |

## VlanInterfaceStatus

Applied stereotypes:

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

Attributes for VlanInterfaceStatus

Table 1: Attributes for VlanInterfaceStatus

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| interfaceStatus | InterfaceStatusType  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 | Operational status of the interface. |
| loopBackKindUp | LoopBackType | 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 | true = Statistics are currently counted |
| 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 | true = 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 |  |
| totalBytesInput | Integer  -1 | 1 | R | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: Byte  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | octets-rx. The total number of octets in all valid frames received. Name in ieee802-dot1q-bridge.yang: octets-rx. |
| totalFramesInput | Integer  -1 | 1 | R | Reference  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: frame  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | frame-rx. Number of frames that have been received by this port from its segment. Name in ieee802-dot1q-bridge.yang: frame-rx. |
| totalBytesOutput | Integer  -1 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: Byte  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: LENGTH\_64\_BIT | octets-tx. The total number of octets that have been transmitted by this port to its segment. Name in ieee802-dot1q-bridge.yang: octets-tx. |
| 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 | frame-tx. The number of frames that have been transmitted by this port to its segment. Note that a frame transmitted on the interface corresponding to this port is only counted by this object if and only if it is for a protocol being processed by the local bridging function, including Bridge management frames. Name in ieee802-dot1q-bridge.yang: frame-tx. |

## VlanInterface\_Pac

Applied stereotypes:

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

Attributes for VlanInterface\_Pac

Table 1: Attributes for VlanInterface\_Pac

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_vlanInterfaceCapability | VlanInterfaceCapability  ./. | 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 |
| \_vlanInterfaceConfiguration | VlanInterfaceConfiguration  ./. | 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 |
| \_vlanInterfaceStatus | VlanInterfaceStatus  ./. | 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 |
| \_vlanInterfaceCurrentProblem | VlanInterfaceCurrentProblem  ./. | 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 |
| \_vlanInterfaceCurrentPerformance | VlanInterfaceCurrentPerformance  ./. | 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 |
| \_vlanInterfaceHistoricalPerformance | VlanInterfaceHistoricalPerformance  ./. | 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 |

# Data Types

## ExternalToInternalVlanIdMappingType

vid-translations. To configure the VID Translation Table (6.9) associated with a Port. If no translation relationship is defined for some VID value, then it is assumed that the VID does not change. The translation relation applies on ingress and egress frames unless a separate egress translation relations are defined in egressVidTranslationMapping. Name in ieee802-dot1q-bridge.yang: vid-translations.

Applied Stereotypes:

Attributes for ExternalToInternalVlanIdMappingType

Table 1: Attributes for ExternalToInternalVlanIdMappingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| externalVlanId | Integer  ./. | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_8\_BIT | local-vid. VID of the frame as long as it is inside the interface. If ingress frame, this would be before translation. If egress frame (AND egressVidTranslationMapping not activated!), this would be after translation. Name in ieee802-dot1q-bridge.yang: local-vid. |
| internalVlanId | Integer  -1 | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: LENGTH\_8\_BIT | relay-vid. VID of the frame as long as it is inside the bridge. If ingress frame, this would be after translation. If egress frame (AND egressVidTranslationMapping not activated!), this would be before translation. Name in ieee802-dot1q-bridge.yang: relay-vid. |

## ForwardedProtocolVlanIdGroupingType

protocol-group-vid-set. Limits the forwarded frames of a list of VIDs to the protocols, which are consolidated under a specific group ID. The protocol group is to be defined on Bridge level. Name in ieee802-dot1q-bridge.yang: protocol-group-vid-set.

Applied Stereotypes:

Attributes for ForwardedProtocolVlanIdGroupingType

Table 1: Attributes for ForwardedProtocolVlanIdGroupingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| forwardedProtocolGroupId | Integer  ./. | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT | group-id. Bridge wide identifier of a group of protocols that shall be forwarded within the listed VLANs. Name in ieee802-dot1q-bridge.yang: group-id. |
| forwardedVlanIdList | Integer  -1 | 0..\* | RW | Reference  OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: LENGTH\_8\_BIT | vid. List of VLANs that shall forward the protocols, which are consolidated unter the protocolGroupId. Name in ieee802-dot1q-bridge.yang: vid. |

## InternalToEgressVlanIdMappingType

egress-vid-translationsType. To configure the Egress VID Translation Table (6.9) associated with a Port. If no translation relationship is defined for some VID value, then it is assumed that the VID does not change. Name in ieee802-dot1q-bridge.yang: egress-vid-translationsType.

Applied Stereotypes:

Attributes for InternalToEgressVlanIdMappingType

Table 1: Attributes for InternalToEgressVlanIdMappingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| internalVlanId | Integer  ./. | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_8\_BIT | relay-vid. VID of the frame as long as it is inside the bridge, but before translating the VID and egress of the frame at this interface. Name in ieee802-dot1q-bridge.yang: relay-vid. |
| egressVlanId | Integer  -1 | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: LENGTH\_8\_BIT | local-vid. VID of the egress frame after translating the VID. Name in ieee802-dot1q-bridge.yang: local-vid. |

## PcpBitsToPriorityMappingType

priority-map. The Priority Code Point decoding mapping describes how to decode the PCP-bits of the ingress VLAN header into Priority value and drop eligibility. If no corresponding pcpBitToPriorityMappingType instance exists, the mapping of the respective pcpBitsValue shall follow the standard, which is defined in Table6-3 on page 143 of IEEE802.1Q-2018. Name in ieee802-dot1q-bridge.yang: priority-map.

Applied Stereotypes:

Attributes for PcpBitsToPriorityMappingType

Table 1: Attributes for PcpBitsToPriorityMappingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| toBeDecodedPcpBitsValue | Integer  ./. | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_8\_BIT | priority-code-point. Value of the 3 Priority Code Point (PCP) bits of the VLAN header, which is to be interpreted into Priority and eligibility. Name in ieee802-dot1q-bridge.yang: priority-code-point. |
| associatedPriorityValue | Integer  -1 | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: LENGTH\_8\_BIT | priority. Priority value associated to the value of the 3 Priority Code Point (PCP) bits of the VLAN header. Values from 0 to 7 (inclusive). Name in ieee802-dot1q-bridge.yang: priority. |
| associatedDropEligibility | Boolean  false | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: NA | drop-eligible. Drop eligibility associated to the value of the 3 Priority Code Point (PCP) bits of the VLAN header. Name in ieee802-dot1q-bridge.yang: drop-eligible. |

## PriorityToPcpBitsMappingType

priority-map. The Priority Code Point encoding mapping describes how to encode Priority value and drop eligibility into the PCP-bits of the egress VLAN header. If no corresponding PriorityToPcpBitsMappingType instance exists, the mapping of the respective Priority value shall follow the standard, which is defined in Table6-2 on page 143 of IEEE802.1Q-2018. Name in ieee802-dot1q-bridge.yang: priority-map.

Applied Stereotypes:

Attributes for PriorityToPcpBitsMappingType

Table 1: Attributes for PriorityToPcpBitsMappingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| toBeEncodedPriorityValue | Integer  ./. | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_8\_BIT | priority. Priority value, which is to be encoded into a value of the 3 Priority Code Point (PCP) bits of the egress VLAN header. Name in ieee802-dot1q-bridge.yang: priority. |
| toBeEncodedDropEligibility | Boolean  ./. | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 2 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA | dei. Drop eligibility, which is to be encoded into a value of the 3 Priority Code Point (PCP) bits of the egress VLAN header. Name in ieee802-dot1q-bridge.yang: dei. |
| associatedPcpBitsValue | Integer  -1 | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: LENGTH\_8\_BIT | priority-code-point. Value of the 3 Priority Code Point (PCP) bits of the egress VLAN header, which is to be associated with the Priority value and eligibility. Name in ieee802-dot1q-bridge.yang: priority-code-point. |

## PriorityToTrafficClassMappingType

traffic-class-table-grouping. If no corresponding PriorityToTrafficClassMappingType instance exists, the mapping of the respective Priority shall follow the standard, which is defined in Table 8-5 on page 198 of IEEE802.1Q-2018. This modeling is shortening the ieee802-dot1q-bridge.yang from a table to a list, because it allows only configuring the values for the number of traffic classes, which is actually available at the device. Name in ieee802-dot1q-bridge.yang: traffic-class-table-grouping.

Applied Stereotypes:

* Reference

Attributes for PriorityToTrafficClassMappingType

Table 1: Attributes for PriorityToTrafficClassMappingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| priorityValue | Integer  ./. | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_8\_BIT | priority. Priority value, which is to be mapped into a Traffic Class (queue). Values from 0 to 7 (inclusive). Name in ieee802-dot1q-bridge.yang: priority. |
| trafficClassValue | Integer  -1 | 1 | RW | Reference  OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: LENGTH\_8\_BIT | traffic-class. Index of the Traffic Class (queue), which gets associated with the Priority Value. Values from 0 to 7 (inclusive). Name in ieee802-dot1q-bridge.yang: traffic-class. |

## 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. |

## ReceivedPriorityOverwritingType

The priority regeneration table provides the ability to map incoming priority values on a per-Port basis, under management control. If no corresponding ReceivedPriorityOverwritingType instance exists, the Regenerated Priority value is the same as the Received Priority value.

Applied Stereotypes:

Attributes for ReceivedPriorityOverwritingType

Table 1: Attributes for ReceivedPriorityOverwritingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| toBeOverwrittenPriorityValue | Integer  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_8\_BIT | Received Priority value, which is to be overwritten by the Regenerated Priority value. ieee802-dot1q-bridge.yang is explicitly listing all values, and has been slightly shortened. |
| newPriorityValue | Integer  -1 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: LENGTH\_8\_BIT | Regenerated Priority value, which is substituting the Received Priority value. ieee802-dot1q-bridge.yang is explicitly listing all values, and has been slightly shortened. |

## ServiceAccessPriorityMappingType

service-access-priority-table-grouping. Describes how the PCP-bits of the priority S-VLAN tag (no VID value) get derived from the Priority value. Name in ieee802-dot1q-bridge.yang: service-access-priority-table-grouping.

Applied Stereotypes:

* Reference

Attributes for ServiceAccessPriorityMappingType

Table 1: Attributes for ServiceAccessPriorityMappingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| cVlanPriorityValue | Integer  ./. | 1 | RW | OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_8\_BIT | C-VLAN Priority, which shall be translated into the associated S-VLAN Priority. ieee802-dot1q-bridge.yang is explicitly listing all values, and has been slightly shortened. |
| sVlanPcpBitsValue | Integer  -1 | 1 | RW | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES * bitLength: LENGTH\_8\_BIT | S-VLAN Priority, which shall be associated with this C-VLAN Priority. ieee802-dot1q-bridge.yang is explicitly listing all values, and has been slightly shortened. |

## VlanInterfaceCurrentPerformanceType

Applied Stereotypes:

Attributes for VlanInterfaceCurrentPerformanceType

Table 1: Attributes for VlanInterfaceCurrentPerformanceType

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

## VlanInterfaceCurrentProblemType

Applied Stereotypes:

Attributes for VlanInterfaceCurrentProblemType

Table 1: Attributes for VlanInterfaceCurrentProblemType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| problemName | String  Problem name not specified. | 1 | R | 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 |

## VlanInterfaceHistoricalPerformanceType

Applied Stereotypes:

Attributes for VlanInterfaceHistoricalPerformanceType

Table 1: Attributes for VlanInterfaceHistoricalPerformanceType

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

## VlanInterfacePerformanceType

Applied Stereotypes:

Attributes for VlanInterfacePerformanceType

Table 1: Attributes for VlanInterfacePerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| totalBytesInput | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: Bytes * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Received data volume in Byte. |
| totalFramesInput | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: frames * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | The total number of Ethernet frames received for the specified VLAN ID(s), including those received in error |
| totalBytesOutput | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: Bytes * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | Sent data volume in Byte. |
| totalFramesOutput | Integer  -1 | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: frames * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_64\_BIT | The total number of Ethernet frames for the specified VLAN ID(s) that the device supplied to the lower layers for transmission. This includes frames generated locally and those forwarded by the device. |

# Enumeration Types

## AdminPointToPointType

admin-point-to-point

Contains Enumeration Literals:

* FORCE\_TRUE:
  + force-true. Indicates that this port should always be treated as if it is connected to a point-to-point link. Name in ieee802-dot1q-bridge.yang: force-true.
* FORCE\_FALSE:
  + force-false. Indicates that this port should be treated as having a shared media connection. Name in ieee802-dot1q-bridge.yang: force-false.
* AUTO:
  + auto. Indicates that this port is considered to have a point-to-point link if it is an Aggregator and all of its members are aggregatable, or if the MAC entity is configured for full duplex operation, either through auto-negotiation or by management means. Name in ieee802-dot1q-bridge.yang: auto.
* 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:

## IngressTagFilteringType

Contains Enumeration Literals:

* UNTAGGED\_AND\_PRIORITY\_FRAMES\_ONLY:
  + admit-only-untagged-and-priority-tagged. Priority frames are frames with VLAN header, but VID==0.
* VLAN\_TAGGED\_FRAMES\_ONLY:
  + admit-only-VLAN-tagged-frames
* ALL\_FRAMES:
  + admit-all-frames
* NOT\_YET\_DEFINED:

## InterfaceKindType

type-capabilties. The type of feature capabilities supported with port. Indicates the capabilities of this port. Name in ieee802-dot1q-bridge.yang:type-capabilties.

Contains Enumeration Literals:

* D\_BRIDGE\_PORT:
  + Indicates the port can be a VLAN-unaware member of an 802.1Q Bridge.
* C\_VLAN\_BRIDGE\_PORT:
  + Indicates the port can be a C-TAG aware port of an enterprise VLAN aware Bridge.
* CUSTOMER\_EDGE\_PORT:
  + Indicates the port can be a C-TAG aware port of a Provider Bridge used for connections to the exterior of a PBN (Provider Bridged Network) or PBBN (Provider Backbone Bridged Network).
* PROVIDER\_EDGE\_PORT:
* CUSTOMER\_NETWORK\_PORT:
  + Indicates the port can be an S-TAG aware port of a Provider Bridge or Backbone Edge Bridge used for connections to the exterior of a PBN (Provider Bridged Network) or PBBN (Provider Backbone Bridged Network).
* PROVIDER\_NETWORK\_PORT:
  + Indicates the port can be an S-TAG aware port of a Provider Bridge or Backbone Edge Bridge used for connections within a PBN (Provider Bridged Network) or PBBN (Provider Backbone Bridged Network).
* CUSTOMER\_BACKBONE\_PORT:
  + Indicates the port can be a I-TAG aware port of a Backbone Edge Bridge's B-component.
* REMOTE\_CUSTOMER\_ACCESS\_PORT:
  + Indicates the port can be an S-TAG aware port of a Provider Bridge capable of providing Remote Customer Service Interfaces.
* VIRTUAL\_INSTANCE\_PORT:
  + Indicates the port can be a virtual S-TAG aware port within a Backbone Edge Bridge's I-component which is responsible for handling S-tagged traffic for a specific backbone service instance.
* STATION\_FACING\_BRIDGE\_PORT:
  + Indicates the station-facing Bridge Port in a EVB Bridge.
* UPLINK\_ACCESS\_PORT:
  + Indicates the uplink access port in an EVB Bridge or EVB station.
* UPLINK\_RELAY\_PORT:
  + Indicates the uplink relay port in an EVB station.
* NOT\_YET\_DEFINED:

## InterfaceStatusType

Current Interface Status

Contains Enumeration Literals:

* UP:
  + Ready to pass packets.
* DOWN:
  + The interface does not pass any packets.
* 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:

## LayerProtocolNameType

A controlled list of LayerProtocol names.

Contains Enumeration Literals:

* LAYER\_PROTOCOL\_NAME\_TYPE\_VLAN\_LAYER:

## LoopBackType

Contains Enumeration Literals:

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

## PcpBitsInterpretationKindType

pcp-selection-type. Ways of translating the PCP-bit values of the ingress frames into Priority values. Name in ieee802-dot1q-bridge.yang: pcp-selection-type. References: 12.6.2.5.3 of IEEE Std 802.1Q-2018 and 6.9.3 of IEEE Std 802.1Q-2018.

Contains Enumeration Literals:

* 8P0D:
  + The 3 bits of the Priority Code Point (PCP) segment of the VLAN header are used to express 8 Priority values and 0 drop eligibility values.
* 7P1D:
  + The 3 bits of the Priority Code Point (PCP) segment of the VLAN header are used to express 7 Priority values and 1 drop eligibility values.
* 6P2D:
  + The 3 bits of the Priority Code Point (PCP) segment of the VLAN header are used to express 6 Priority values and 2 drop eligibility values.
* 5P3D:
  + The 3 bits of the Priority Code Point (PCP) segment of the VLAN header are used to express 5 Priority values and 3 drop eligibility values.
* NOT\_YET\_DEFINED:

## SeverityType

Contains Enumeration Literals:

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

## SubLayerProtocolNameType

Represents the type of Component.

Contains Enumeration Literals:

* D\_BRIDGE\_COMPONENT:
  + VLAN unaware component
* C\_VLAN\_COMPONENT:
  + C-VLAN component
* S\_VLAN\_COMPONENT:
  + S-VLAN component
* EDGE\_RELAY\_COMPONENT:
  + EVB station ER component
* NOT\_YET\_DEFINED:

# Primitive Types