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IpPac

## Classes

### IpCurrentProblem

Applied stereotypes:

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

Attributes for IpCurrentProblem

Table 1: Attributes for IpCurrentProblem

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| sequenceNumber | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| timeStamp |  | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| problemSeverity |  | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### IpIntefaceHistoricalPerformances

Applied stereotypes:

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

Attributes for IpIntefaceHistoricalPerformances

Table 1: Attributes for IpIntefaceHistoricalPerformances

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| historicalPerformaceDataList | IpInterfaceHistoricalPerformanceType | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO |  |

### IpInterfaceCapability

Applied stereotypes:

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

Attributes for IpInterfaceCapability

Table 1: Attributes for IpInterfaceCapability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| adminShutDownIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = Administrative shutdown is available at the interface. |
| dhcpClientIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = Interface is able to operate as a DHCP client. |
| arpProxyIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | 1 = Interface is able to forward ARP requests. |
| portShapingIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = The interface supports port based shaping. |
| portShapingBandwidthMin | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Minimum configurable port shaping bandwidth in kbit/s. |
| portShapingBandwidthMax | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Maximum configurable port shaping bandwidth in kbit/s. |
| vpnBindingIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Shall be True if the port can be included as part of a VPN configuration. IP Transport Model Attribute List Annex 02.6a |
| maximumTransmissionUnitMin | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Minimum layer 3 MTU size configurable. |
| maximumTransmissionUnitMax | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Maximum layer 3 MTU size configurable. |
| layer3FlowStatisticsIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Shall be true if L3 statistics collection and aggregation is possible on the device. IP Transport Model attribute List annex 02.6a |
| layer3FlowStatisticsUpdatePeriodMax | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Time period over which Traffic volume is integrated. IP Transport Model Atrribute list Annex 02.6a |
| supportedAlarmList | String | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Supported Alarms according to configuration. IP Transport Model Attribute list Annex 02.6a  Available alarms to be listed.Mandatory InterfaceStatusTransition.Further alarms might be added by the device Vendors. Names are to be separated by commas. |
| ingressShapingIsAvail | invalid | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| egressShapingIsAvail | invalid | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| fixedDefaultGatewayConfigurationIsAvail | invalid | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | 1 = Default route per IP Interface can be configuered, 0 if multiple Default routes are not supported |
| ipv6Avail | invalid | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### IpInterfaceConfiguration

Configuration of the IP interface

Applied stereotypes:

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

Attributes for IpInterfaceConfiguration

Table 1: Attributes for IpInterfaceConfiguration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| ipInterfaceName | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Description of the Interface, could be a name, could be a number. |
| ipInterfaceIsOn | Boolean | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | 1 = Activation of the IP interface. 0 = De-activation of the IP interface (underlying layers (e.g. Ethernet MAC or Ethernet PHY) are not affected.) |
| dhcpClientIsOn | Boolean | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant when dhcpClientIsAvail == 1. Enables a DHCP client on the interface in order to request an address. |
| fixedIpV4Address | Ipv4Address | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | If (dhcpClientIsOn==0), IPv4 address fixed assigned to this interface. The format is IPv4, e.g. 172.168.0.5 |
| fixedIpV4AddressPrefixLength | Integer | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | If (dhcpClientIsOn==0), fixed assigned routing prefix (sub network) length (e.g. for 198.51.100.0/24 the ipV4AddressPrefixLength would be 24). |
| fixedDefaultGatewayIpV4Address | Ipv4Address | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | If (dhcpClientIsOn==0) And (capability fixedDefaultGatewayConfigurationIsAvail = 1) , fixed assigned IPv4 address of the default gateway. |
| arpProxy | arpProxyType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Only relevant when arpProxyIsAvail == 1. When set to a value other than DISABLE, the local system should respond to ARP requests that are for target addresses other than those that are configured on the local subinterface using its own MAC address as the target hardware address. If the REMOTE\_ONLY value is specified, replies are only sent when the target address falls outside the locally configured subnets on the interface, whereas with the ALL value, all requests, regardless of their target address are replied to. |
| \_egressShapingBandwidth | ShapingPolicy | 1..\* | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| \_ingressShapingBandwidth | ShapingPolicy | 1..\* | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| \_vpnBinding | VirtualPrivateNetwork | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Reference to the definition of a Virtual Private Network, to which this IP interface belongs to. |
| maximumTransmissionUnitIP | Integer | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Layer 3 maximum transmission unit size in Byte. The MTU describes the maximum IP packet size that will travel along the entire route without fragmentation. |
| \_qosInterface | QosInterface\_Pac | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Reference to the definition of a QoS schema, to which this IP interface belongs to.  #### In case of a stringent layering, the QosInterface could always be assumed between EthernetContainer and MacInterface. In this case no referencing here. |
| layer3QosTaggingSource | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   Obsolete  OpenInterfaceModelAttribute   * AVC: YES | #### Tbc with Olaf Struck DSCP (DiffServ Code Point) bits. In the IP Header there is a Type of Service Byte (TOS). |
| layer3QosDiffservProfile | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   Obsolete  OpenInterfaceModelAttribute   * AVC: YES | #### Tbc with Olaf Struck Traffic profile to be used for QoS. e.g. |
| layer3FlowStatisticsIsOn | Boolean | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | 1 = Layer 3 statistics collection is turned on. |
| layer3FlowStatisticsUpdatePeriod | Integer | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Time period, over which layer 3 traffic volume is aggregated, in seconds.  #### Falls alle 10s ausreichend, wären 16bit ausreichend. |
| problemKindSeverityList | IpInterfaceProblemSeverityType | 0..\* | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Severity of the problems to be configured. |

### IpInterfaceCurrentPerformance

Applied stereotypes:

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

Attributes for IpInterfaceCurrentPerformance

Table 1: Attributes for IpInterfaceCurrentPerformance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| currentPerformanceDataList | IpInterfaceCurrentPerformanceType | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO |  |

### IpInterfaceCurrentProblems

Applied stereotypes:

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

Attributes for IpInterfaceCurrentProblems

Table 1: Attributes for IpInterfaceCurrentProblems

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| currentProblemList | IpInterfaceCurrentProblemType | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### IpInterfaceStatus

Applied stereotypes:

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

Attributes for IpInterfaceStatus

Table 1: Attributes for IpInterfaceStatus

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| ipInterfaceStatus | InterfaceStatusType | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | If the IP interface is active, this shall be expressed as a 1. |
| ipV4AddressCur | Ipv4Address | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | IPv4 address currently active on this interface. The format is IPv4, e.g. 172.168.0.5 |
| ipV4AddressPrefixLengthCur | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | If (dhcpClientIsOn==0), fixed assigned routing prefix (sub network) length (e.g. for 198.51.100.0/24 the ipV4AddressPrefixLength would be 24). |
| defaultGatewayIpV4AddressCur | Ipv4Address | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | IPv4 address of the default gateway currently active on this interface. |
| ipAddressOrigin | ipAddressOriginType | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   Preliminary  OpenInterfaceModelAttribute   * AVC: YES | The origin of this address, e.g., statically configured, assigned by DHCP, etc.. |
| maximumTransmissionUnitCur | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | The currently effective (passing through the entire transmission path without fragmentation) maximum size of a layer 3 transmission unit in Byte. |
| vpnBindingIsUp | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | If the binding to a VPN definition is currently effective, this shall be expressed as a 1. |
| neighbor | neighborType | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   Preliminary  OpenInterfaceModelAttribute   * AVC: NA | Current IP and MAC addresses of the remote site of the IP link. |
| layer3FlowStatisticsIsUp | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | If layer 3 flow statistics are currently collected and aggregated, this shall be expressed as a 1. |

### IpInterface\_Pac

Applied stereotypes:

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

Attributes for IpInterface\_Pac

Table 1: Attributes for IpInterface\_Pac

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_ipInterfaceCapability | IpInterfaceCapability | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| \_ipInterfaceConfiguration | IpInterfaceConfiguration | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| \_ipInterfaceStatus | IpInterfaceStatus | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| \_ipInterfaceCurrentProblems | IpInterfaceCurrentProblems | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| \_ipInterfaceCurrentPerformance | IpInterfaceCurrentPerformance | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   Obsolete  OpenInterfaceModelAttribute   * AVC: NA |  |
| \_ipIntefaceHistoricalPerformances | IpIntefaceHistoricalPerformances | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   Obsolete  OpenInterfaceModelAttribute   * AVC: NA |  |

### QosCurrentProblem

Applied stereotypes:

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

Attributes for QosCurrentProblem

Table 1: Attributes for QosCurrentProblem

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| sequenceNumber | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| timeStamp |  | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| problemSeverity |  | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### QosInterfaceCapability

Applied stereotypes:

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

Attributes for QosInterfaceCapability

Table 1: Attributes for QosInterfaceCapability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| availableQueueList | queueNameType | 1..8 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | List of queues, which are available at the physical interface. |

### QosInterfaceConfiguration

Applied stereotypes:

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

Attributes for QosInterfaceConfiguration

Table 1: Attributes for QosInterfaceConfiguration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| qosInterfaceName | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Defines the profile that will be used for the mapping between bits and queues. |
| qosInterfaceKind | qosInterfaceKindType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Defines whether the interface is prioritizing according to layer 2 (IEEE8021P) or layer 3 (IP\_DSCP). |
| ingress8021pToPerHopBehaviorAssociationList | perHopBehaviorType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant when qosInterfaceKind == IEEE8021P. Associates the entry of the three p-bits of the VLAN header with a per hop behavior at the physical interface. First entry in the list [0] relates to p-bit value 0. Last entry in the list [7] relates to p-bit value 7. |
| ingressExpToPerHopBehaviorAssociationList | perHopBehaviorType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant when qosInterfaceKind == MPLS\_EXP. Associates the entry of the three p-bits of the MPLS header with a per hop behavior at the physical interface. First entry in the list [0] relates to p-bit value 0. Last entry in the list [7] relates to p-bit value 7. |
| ingressIpDscpToPerHopBehaviorAssociationList | perHopBehaviorType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant when qosInterfaceKind == IP\_DSCP. Associates the entries of the 8 dscp bits of the IP header with a per hop behavior at the physical interface. First entry in the list [0] relates to dscp value 0. Last entry in the list [7] relates to dscp value 63. |
| egressPerHopBehaviorTo8021pAssociationList | egressPerHopBehaviorTo8021pAssociationType | 0..24 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant when qosInterfaceKind == IEEE8021P. Associates the entries of the three p-bits of the VLAN header with a per hop behavior at the physical interface. First entry in the list [0] relates to p-bit value 0. Last entry in the list [7] relates to p-bit value 7. |
| egressPerHopBehaviorToIpDscpAssociationList | egressPerHopBehaviorToIpDscpAssociationType | 0..24 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant when qosInterfaceKind == IP\_DSCP. Last entry is 24 because there are 8 queues with 3 different priorities. Associates the entries of the 8 dscp bits of the IP header with a per hop behavior at the physical interface. First entry in the list [0] relates to dscp value 0 (lowest priority). Last entry in the list [192] relates to dscp value 63 (highest priority). |
| egressPerHopBehaviorToMplsExpAssociationList | egressPerHopBehaviorTo8021pAssociationType | 0..24 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant when qosInterfaceKind == MPLS\_EXP. Associates the entry of the three p-bits of the MPLS header with a per hop behavior at the physical interface. First entry in the list [0] relates to p-bit value 0 (lowest priority). Last entry in the list [7] relates to p-bit value 7 (highest priority). |

### QosInterfaceCurrentPerformance

Applied stereotypes:

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

Attributes for QosInterfaceCurrentPerformance

Table 1: Attributes for QosInterfaceCurrentPerformance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| currentPerformanceDataList | QoSInterfaceCurrentPerformanceType | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO |  |

### QosInterfaceCurrentProblems

Applied stereotypes:

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

Attributes for QosInterfaceCurrentProblems

Table 1: Attributes for QosInterfaceCurrentProblems

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| currentProblemList | QoSInterfaceCurrentProblemType | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### QosInterfaceHistoricalPerformances

Applied stereotypes:

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

Attributes for QosInterfaceHistoricalPerformances

Table 1: Attributes for QosInterfaceHistoricalPerformances

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| historicalPerformaceDataList | QoSInterfaceHistoricalPerformanceType | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO |  |

### QosInterfaceStatus

Applied stereotypes:

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

### QosInterface\_Pac

Applied stereotypes:

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

Attributes for QosInterface\_Pac

Table 1: Attributes for QosInterface\_Pac

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| qosinterfaceconfiguration | QosInterfaceConfiguration | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| qosinterfacestatus | QosInterfaceStatus | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| qosinterfacecurrentproblems | QosInterfaceCurrentProblems | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| qosinterfacecurrentperformance | QosInterfaceCurrentPerformance | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| qosinterfacehistoricalperformances | QosInterfaceHistoricalPerformances | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| qosinterfacecapability | QosInterfaceCapability | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### ShapingPolicy

Applied stereotypes:

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

Attributes for ShapingPolicy

Table 1: Attributes for ShapingPolicy

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| policyName | invalid | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| shapingBandwidth | Integer | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### VirtualPrivateNetwork

Definition of a Virtual Private Network, which is to be referenced by the IP interfaces.

Applied stereotypes:

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

Attributes for VirtualPrivateNetwork

Table 1: Attributes for VirtualPrivateNetwork

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| vpnName | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | unique name for the VPN |
| Description | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | short description for the VPN. |
| RouteDistinguisher | invalid | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | 8 Byte. the three formats have to be supported TEF MBH typical use IP based format. e.g. 10.13.128.33:3 |
| RouteTargetImport | invalid | 1..\* | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Route targets that will be imported to this VPN |
| RouteTargetExport | invalid | 1..\* | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Route targets that will be tagged to outgoing routes |

## Data Types

### IpInterfaceCurrentPerformanceType

#### Generalization of OTN\_CurrentData is missing

Applied Stereotypes:

Attributes for IpInterfaceCurrentPerformanceType

Table 1: Attributes for IpInterfaceCurrentPerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| performanceData | IpInterfacePerformanceType | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### IpInterfaceCurrentProblemType

Applied Stereotypes:

Attributes for IpInterfaceCurrentProblemType

Table 1: Attributes for IpInterfaceCurrentProblemType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| problemName | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Name of the alarm according to IpInterface\_Pac::IpInterfaceCapability::supportedAlarmList |

### IpInterfaceHistoricalPerformanceType

#### Generalization of OTN\_HistoryData is missing

Applied Stereotypes:

Attributes for IpInterfaceHistoricalPerformanceType

Table 1: Attributes for IpInterfaceHistoricalPerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| performanceData | IpInterfacePerformanceType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### IpInterfacePerformanceType

Applied Stereotypes:

Attributes for IpInterfacePerformanceType

Table 1: Attributes for IpInterfacePerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| last10SecDataInputRate | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Data receive rate over the last 10 second interval in kbit/s. |
| last10SecDataOutputRate | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Data transmit rate over the last 10 second interval in kbit/s. |
| last10SecPacketsInputRate | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Packet receive rate over the last 10 second interval. |
| last10SecPacketsOutputRate | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Packet transmit rate over the last 10 second interval. |
| dataVolumeInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Received data volume in kByte. |
| dataVolumeOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Sent data volume in kByte. |
| totalPacketsInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | The total number of IP packets received for the specified address family, including those received in error |
| totalPacketsOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | The total number of IP packets for the specified address family that the device supplied to the lower layers for transmission.This includes packets generated locally and those forwarded by the device. |
| forwardedDataVolumeInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | The number of octets received in input IP packets for the specified address family for which the device was not their final IP destination and for which the device attempted to find a route to forward them to that final destination. |
| forwardedDataVolumeOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | The number of octets in packets for which this entity was not their final IP destination and for which it was successful in finding a path to their final destination. |
| forwardedPacketsInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | The number of input packets for which the device was not their final IP destination and for which the device attempted to find a route to forward them to that final destination. |
| forwardedPacketsOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | The number of packets for which this entity was not their final IP destination and for which it was successful in finding a path to their final destination. |
| unicastPacketsInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of received unicast packets. |
| unicastPacketsOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of sent unicast packets. |
| multicastPacketsInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of received multicast packets. |
| multicastPacketsOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of sent multicast packets. |
| broadcastPacketsInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of received broadcast packets. |
| broadcastPacketsOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of sent broadcast packets. |
| fragmentedPacketsInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of received fragmented packets. |
| erroredPacketsInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of received errored packets. |
| erroredPacketsOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Number of IP packets for the specified address family locally generated and discarded due to errors, including no route found to the IP destination. |
| droppedPacketsInput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Total number of packets dropped at the receiver. The number of input IP packets for the specified address family, for which no problems were encountered to prevent their continued processing, but were discarded (e.g., for lack of buffer space). |
| droppedPacketsOutput | Integer | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | The number of output IP packets for the specified address family for which no problem was encountered to prevent their transmission to their destination, but were discarded (e.g., for lack of buffer space). |

### IpInterfaceProblemSeverityType

Applied Stereotypes:

Attributes for IpInterfaceProblemSeverityType

Table 1: Attributes for IpInterfaceProblemSeverityType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| problemKindName | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Name of the alarm according to IpInterface\_Pac::IpInterfaceCapability::supportedAlarmList |
| problemKindSeverity | SeverityType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Severity of this type of alarm. |

### QoSInterfaceCurrentPerformanceType

#### Generalization of OTN\_CurrentData is missing

Applied Stereotypes:

Attributes for QoSInterfaceCurrentPerformanceType

Table 1: Attributes for QoSInterfaceCurrentPerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| performanceData | QoSInterfacePerformanceType | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### QoSInterfaceCurrentProblemType

Applied Stereotypes:

Attributes for QoSInterfaceCurrentProblemType

Table 1: Attributes for QoSInterfaceCurrentProblemType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| problemName | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Name of the alarm according to IpInterface\_Pac::IpInterfaceCapability::supportedAlarmList |

### QoSInterfaceHistoricalPerformanceType

#### Generalization of OTN\_HistoryData is missing

Applied Stereotypes:

Attributes for QoSInterfaceHistoricalPerformanceType

Table 1: Attributes for QoSInterfaceHistoricalPerformanceType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| performanceData | QoSInterfacePerformanceType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### QoSInterfacePerformanceType

Applied Stereotypes:

### QoSInterfaceProblemSeverityType

Applied Stereotypes:

Attributes for QoSInterfaceProblemSeverityType

Table 1: Attributes for QoSInterfaceProblemSeverityType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| problemKindName | String | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Name of the alarm according to IpInterface\_Pac::IpInterfaceCapability::supportedAlarmList |
| problemKindSeverity | SeverityType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Severity of this type of alarm. |

### ServingRateType

Applied Stereotypes:

Attributes for ServingRateType

Table 1: Attributes for ServingRateType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| queueName | queueNameType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Name of the queue. |
| servingRate | Integer | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Serving rate for this queue as a percentage value. |

### egressPerHopBehaviorTo8021pAssociationType

Applied Stereotypes:

Attributes for egressPerHopBehaviorTo8021pAssociationType

Table 1: Attributes for egressPerHopBehaviorTo8021pAssociationType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| perHopBehavior | perHopBehaviorType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Per hop behavior, which is to be translated into a p-bit entry in the VLAN header. |
| associatedPriority | Integer | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Associated entry of the three p-bits of the VLAN header. |

### egressPerHopBehaviorToIpDscpAssociationType

Applied Stereotypes:

Attributes for egressPerHopBehaviorToIpDscpAssociationType

Table 1: Attributes for egressPerHopBehaviorToIpDscpAssociationType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| perHopBehavior | perHopBehaviorType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Per hop behavior, which is to be translated into a IP DSCP value. |
| associatedDscpValue | Integer | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Associated DSCP value. |

### neighborType

Neighbor entries are analagous to static ARP entries, i.e., they create a correspondence between IP and link-layer addresses.

Applied Stereotypes:

* Preliminary

Attributes for neighborType

Table 1: Attributes for neighborType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| neighborIpV4Address | Ipv4Address | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | IPv4 address of the neighbor node. The format is IPv4, e.g. 172.168.0.5 |
| neighborMacAddress | MacAddress | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | MAC address of the neighbor node. The format is e.g. 00:80:41:ae:fd:7e |
| neighborOrigin | neighborOriginType | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | The origin of a neighbor entry. |

### perHopBehaviorType

Applied Stereotypes:

Attributes for perHopBehaviorType

Table 1: Attributes for perHopBehaviorType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| queueName | queueNameType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | Name of the queue. |
| dropPrecedenceInsideQueue | dropPrecedenceType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### wredProfileType

Applied Stereotypes:

Attributes for wredProfileType

Table 1: Attributes for wredProfileType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| queueName | queueNameType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Name of the queue. |
| wredName | wredNameType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Serving rate for this queue as a percentage value. |

## Enumeration Types

### 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:

### 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:

### L3QosTaggingSourceType

Contains Enumeration Literals:

* 8021P:
* DSCP:
* NOT-SPECIFIED:

### SeverityType

Contains Enumeration Literals:

* NON-ALARMED:
* WARNING:
* MAJOR:
* MINOR:

### SeverityType

Contains Enumeration Literals:

* NON-ALARMED:
* WARNING:
* MAJOR:
* MINOR:

### arpProxyType

Contains Enumeration Literals:

* DISABLE:
  + The system should not respond to ARP requests that do not specify an IP address configured on the local subinterface as the target address.
* REMOTE\_ONLY:
  + The system responds to ARP requests only when the sender and target IP addresses are in different subnets.
* ALL:
  + The system responds to ARP requests where the sender and target IP addresses are in different subnets, as well as those where they are in the same subnet.
* NOT\_YET\_DEFINED:

### dropPrecedenceType

Contains Enumeration Literals:

* NONE:
* LOW:
* MEDIUM:
* HIGH:
* DROP\_PRECEDENCE\_NOT\_YET\_DEFINED:

### ipAddressOriginType

The origin of the interface's own IP address.

Contains Enumeration Literals:

* OTHER:
  + None of the following.
* STATIC:
  + Indicates that the address has been statically configured - for example, using NETCONF or a Command Line Interface.
* DHCP:
  + Indicates an address that has been assigned to this system by a DHCP server.
* LINK\_LAYER:
  + Indicates an address created by IPv6 stateless autoconfiguration that embeds a link-layer address in its interface identifier.
* RANDOM:
  + Indicates an address chosen by the system at random, e.g., an IPv4 address within 169.254/16, an RFC 4941 temporary address, or an RFC 7217 semantically opaque address.
* NOT\_YET\_DEFINED:

### neighborOriginType

The origin of a neighbor entry.

Contains Enumeration Literals:

* OTHER:
  + None of the following.
* STATIC:
  + Indicates that the mapping has been statically configured - for example, using NETCONF or a Command Line Interface.
* DYNAMIC:
  + Indicates that the mapping has been dynamically resolved using, e.g., IPv4 ARP.
* NOT\_YET\_DEFINED:

### qosInterfaceKindType

Contains Enumeration Literals:

* NONE:
* IEEE8021P:
* MPLS\_EXP:
* IP\_DSCP:
* NOT\_YET\_DEFINED:

### queueNameType

Contains Enumeration Literals:

* BEST\_EFFORT\_QUEUE:
* ASSURED\_FORWARDING\_QUEUE1:
* ASSURED\_FORWARDING\_QUEUE2:
* ASSURED\_FORWARDING\_QUEUE3:
* ASSURED\_FORWARDING\_QUEUE4:
* EXPEDITED\_FORWARDING\_QUEUE:
* CLASS\_SELECTOR\_QUEUE6:
* CLASS\_SELECTOR\_QUEUE7:
* QUEUENAME\_NOT\_YET\_DEFINED:

### wredNameType

Contains Enumeration Literals:

* WRED\_NAME\_NOT\_YET\_DEFINED:

## Primitive Types

Normal back matter in the document.