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# Classes

## QosProfileCapability

Applied stereotypes:

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

Attributes for QosProfileCapability

Table 1: Attributes for QosProfileCapability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| profileNamingIsAvail | Boolean  false | 1 | R | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | 1 = There is a free text field available for naming the profile. |
| availableQueueList | QueueNameType  NOT\_YET\_DEFINED | 1..8 | R | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | List of queues, which are available at the physical interface. |
| dropPrecedenceAtBeQueueIsAvail | Boolean  false | 1 | R | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | 1 = Configuration of the drop precedence is available at the best effort queue. |
| dropPrecedenceAtAfQueuesIsAvail | Boolean  false | 1 | R | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | 1 = Configuration of the drop precedence is available at the assured forwarding queues. |
| dropPrecedenceAtPrioQueuesIsAvail | Boolean  false | 1 | R | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | 1 = Configuration of the drop precedence is available at the priority queues. |
| availableQoSProfileKindList | QosProfileKindType  NOT\_YET\_DEFINED | 1 | R | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | List of header information that are supported to be base of the QoS definition. |

## QosProfileConfiguration

Defines the profile that will be used for mapping between header information and queues (next hop behavior).

Applied stereotypes:

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

Attributes for QosProfileConfiguration

Table 1: Attributes for QosProfileConfiguration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| profileName | String  Name of profile not yet defined. | 1 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 1  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Identifier of the profile. Could be a name, could be a number. Free text field to be filled by the operator. |
| qosProfileKind | QosProfileKindType  NOT\_YET\_DEFINED | 1 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Defines whether the sorting into queues is done based on VLAN, MPLS or IP header information. |
| ingress8021pToPerHopBehaviorMappingList | PerHopBehaviorType  ./. | 1 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Only relevant when qosProfileKind == IEEE8021P. Associates the value 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'. |
| ingressExpToPerHopBehaviorMappingList | PerHopBehaviorType  ./. | 1 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Only relevant when qosProfileKind == MPLS\_EXP. Associates the value 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'. |
| ingressIpDscpToPerHopBehaviorMappingList | PerHopBehaviorType  ./. | 1 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Only relevant when qosProfileKind == IP\_DSCP. Associates the value 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 [63] relates to dscp value '63'. |
| writingPerHopBehaviorInto8021pIsOn | Boolean  false | 1 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | 1 = Original content of 802.1p bits is overwritten with local per hop behavior. |
| egressPerHopBehaviorTo8021pMappingList | EgressPerHopBehaviorToPriorityBitsMappingType  ./. | 0..24 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Only relevant if (writingPerHopBehaviorInto8021pIsOn==1). Translates (queue and drop precedence) into values of the three p-bits of the VLAN header. |
| writingPerHopBehaviorIntoMplsExpIsOn | Boolean  false | 1 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | 1 = Original content of MPLS EXP bits is overwritten with local per hop behavior. |
| egressPerHopBehaviorToMplsExpMappingList | EgressPerHopBehaviorToPriorityBitsMappingType  ./. | 0..24 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Only relevant if (writingPerHopBehaviorIntoMplsExpIsOn==1). Translates (queue and drop precedence) into values of the three p-bits of the MPLS header. |
| writingPerHopBehaviorIntoIpDscpIsOn | Boolean  false | 1 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | 1 = Original content of IP DSCP bits is overwritten with local per hop behavior. |
| egressPerHopBehaviorToIpDscpMappingList | EgressPerHopBehaviorToPriorityBitsMappingType  ./. | 0..24 | RW | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Only relevant if (writingPerHopBehaviorIntoIpDscpIsOn==1). Translates (queue and drop precedence) into values of the six dscp bits of the IP header. |

## QosProfileSpec

Applied stereotypes:

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

Attributes for QosProfileSpec

Table 1: Attributes for QosProfileSpec

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

## QosProfile\_Pac

Applied stereotypes:

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

Attributes for QosProfile\_Pac

Table 1: Attributes for QosProfile\_Pac

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

# Data Types

## EgressPerHopBehaviorToPriorityBitsMappingType

Applied Stereotypes:

Attributes for EgressPerHopBehaviorToPriorityBitsMappingType

Table 1: Attributes for EgressPerHopBehaviorToPriorityBitsMappingType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| mappingNumber | Integer  ./. | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_16\_BIT   OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY |  |
| perHopBehavior | PerHopBehaviorType  ./. | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA   OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Per hop behavior, which is to be translated into a p-bit entry in the VLAN, MPLS or IP header. |
| valueOfPriorityBits | Integer  -1 | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_8\_BIT   OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Associated value of the three, three or six p-bits of the VLAN, MPLS or IP header. |

## PerHopBehaviorType

Applied Stereotypes:

Attributes for PerHopBehaviorType

Table 1: Attributes for PerHopBehaviorType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| queueName | QueueNameType  NOT\_YET\_DEFINED | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA   OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Name of the queue. |
| dropPrecedenceInsideQueue | DropPrecedenceType  NOT\_YET\_DEFINED | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA   OpenModelAttribute   * partOfObjectKey: 2 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | (if dropPrecedenceAt\*QueueIsAvail for the referenced queue == 0) default value shall be kept and configuration attempts shall be ignored. |

# Enumeration Types

## DropPrecedenceType

Contains Enumeration Literals:

* NONE:
* LOW:
  + Would be equal to GREEN.
* MEDIUM:
  + Would be equal to YELLOW.
* HIGH:
  + Would be equal to RED.
* NOT\_YET\_DEFINED:

## ProfileNameType

A controlled list of LayerProtocol names.

Contains Enumeration Literals:

* PROFILE\_NAME\_TYPE\_QOS\_PROFILE:

## QosProfileKindType

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:
* NOT\_YET\_DEFINED:

## SeverityType

Contains Enumeration Literals:

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

# Primitive Types