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# Classes

## L3vpnProfileCapability

Applied stereotypes:

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

Attributes for L3vpnProfileCapability

Table 1: Attributes for L3vpnProfileCapability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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 | true = There is a free text field available for naming the profile. |
| l3vpnBasedOnIpV6IsAvail | Boolean  false | 1 | R | OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | true = Virtual Private Networks based on IP v6 addresses is available at the device. |

## L3vpnProfileConfiguration

Applied stereotypes:

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

Attributes for L3vpnProfileConfiguration

Table 1: Attributes for L3vpnProfileConfiguration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| externalLabel | String  External label not yet defined. | 1 | R | OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Identifier of the instance of L3vpnProfile. Could be a name, could be a number. Free text field to be filled by the operator. |
| l3vpnDescription | String  VPN description not yet defined. | 1 | R | OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | Short description of the VPN. |
| l3vpnConfigurationList | L3vpnConfigurationType  ./. | 1..2 | R | OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA  OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY | L3 VPN instance Configuration. |

## L3vpnProfileSpec

Applied stereotypes:

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

Attributes for L3vpnProfileSpec

Table 1: Attributes for L3vpnProfileSpec

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_l3vpn\_Pac | L3vpnProfile\_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 |

## L3vpnProfile\_Pac

Applied stereotypes:

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

Attributes for L3vpnProfile\_Pac

Table 1: Attributes for L3vpnProfile\_Pac

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_l3vpnCapability | L3vpnProfileCapability  ./. | 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 |
| \_l3vpnConfiguration | L3vpnProfileConfiguration  ./. | 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

## L3vpnConfigurationType

L3 VPN instance configuration information.

Applied Stereotypes:

Attributes for L3vpnConfigurationType

Table 1: Attributes for L3vpnConfigurationType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| labelMode | LabelModeType  ./. | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA   OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Label model used by the VPN. |
| routeDistinguisher | RouteDistinguisherAndTargetType  ./. | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA   OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | The route distinguisher that should be used for the local VRF or VSI instance when it is signalled via BGP. |
| routeTargetImportList | RouteDistinguisherAndTargetType  ./. | 1..\* | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA   OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Route targets that will be imported to this VPN |
| routeTargetExportList | RouteDistinguisherAndTargetType  ./. | 1..\* | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA   OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Route targets that will be tagged to outgoing routes |
| addressFamily | AddressFamilyType  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 | Address family type for the VPN instance is created for |

## RouteDistinguisherAndTargetType

Applied Stereotypes:

Attributes for RouteDistinguisherAndTargetType

Table 1: Attributes for RouteDistinguisherAndTargetType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| vpnNumber | Integer  ./. | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT   OpenModelAttribute   * partOfObjectKey: 1 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Identifier of the VPN, which is unique in the entire network |
| deviceIdentifierKind | DeviceIdentifierKindType  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 |  |
| loopBackIpAddress | Ipv4Address  -1.-1.-1.-1 | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA   OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Only relevant if (deviceIdentifierKind==LOOP\_BACK\_IP\_ADDRESS). Loop back address of the device. |
| asNumber | Integer  0 | 1 | RW | OpenInterfaceModelAttribute   * AVC: NO * bitLength: LENGTH\_32\_BIT   OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: true * valueRange: no range constraint * unit: no unit defined * support: MANDATORY | Only relevant if (deviceIdentifierKind==AS\_NUMBER). Autonomous System number of the device. |

# Enumeration Types

## AddressFamilyType

Address family of the VRF IPv4/IPV6.

Contains Enumeration Literals:

* IPV4-FAMILY:
* IPV6-FAMILY:
* UNKNOWN:
* NOT\_YET\_DEFINED:

## DeviceIdentifierKindType

Contains Enumeration Literals:

* LOOP\_BACK\_IP\_ADDRESS:
* AS\_NUMBER:
* NOT\_YET\_DEFINED:

## LabelModeType

Contains Enumeration Literals:

* PER\_INSTANCE:
  + Labels are assigned to VPN instances in one label per instance mode, that is, all routes in a VPN instance are assigned with the same label.
* PER\_ROUTE:
  + Labels are assigned to routes in the 'one label per route' mode, that is, each route is assigned with one label.

## ProfileNameType

A controlled list of LayerProtocol names.

Contains Enumeration Literals:

* PROFILE\_NAME\_TYPE\_L3VPN\_PROFILE:

## RouteFlagType

Indicates the route flag, that is, Route Flags in the heading of the routing table displayed. It is a combination of one or more of the following flags: D and,R Meaning of each of the flag is availble under corresponding flag value.

Contains Enumeration Literals:

* D:
  + A route is advertised to the Forwarding Information Base table.
* RD:
  + A route is an iterated route and needs to be advertised to the FIB table.
* R:
  + A route is an iterated route.

## RoutePritorityType

The priority of the Route

Contains Enumeration Literals:

* CRITICAL:
  + Highest protocol priority.
* HIGH:
  + High protocol priority
* MEDIUM:
  + Medium protocol priority.
* LOW:
  + Low protocol priority.

## RouteStateType

The state of the route as per the routing table. It is a combination of the one or more of the following states: ADV, NOADV,ACTIVE, INACTIVE, RELIED.

Contains Enumeration Literals:

* ACTIVE\_ADV:
  + The route state is active and advertised.
* ACTIVE\_NOADV:
  + The route state is active and not advertised.
* ACTIVE\_ADV\_RELIED:
  + The route state is active, advertised, and relied.
* ACTIVE\_NOADV\_RELIED:
  + The route state is active, not advertised, and relied.
* INVALID\_NOADV:
  + The route state is invalid and not advertised.
* INACTIVE\_NOADV:
  + The route state is inactive and not advertised.