IpPac

## Classes

### IpInterface\_Pac

Applied stereotypes:

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

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 |  |

### IpInterfaceCapability

Applied stereotypes:

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

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. |
| fixedDefaultGatewayConfigurationIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = Default route per IP Interface can be configuered, 0 if multiple Default routes are not supported |
| 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. |
| ipV6IsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = interface supports IPv6 (even if not yet supported by this information model). |
| arpProxyIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = Interface is able to forward ARP requests. |
| ingressShapingIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = Interface supports ingress shaping. |
| egressShapingIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = Interface supports egress shaping. |
| vpnBindingIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = Interface supports being part of a Virtual Private Network. |
| layer3FlowStatisticsIsAvail | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | 1 = Layer 3 statistics collection and aggregation is supported on this interface. |
| supportedAlarmList | String | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO | Available alarms to be listed. Mandatory: 'IpInterfaceDown' and 'MtuMissmatch'. Further alarms might be added by the device vendors. |

### IpInterfaceConfiguration

Applied stereotypes:

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

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. Free text field to be filled by the operator. |
| 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 without deleting it (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 if (dhcpClientIsAvail==1). 1 = Activation of a DHCP client on the interface. |
| fixedIpV4Address | Ipv4Address | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant if (dhcpClientIsOn==0). IPv4 address fixed assigned to this interface. The format is e.g. 172.168.0.5 |
| fixedIpV4AddressPrefixLength | Integer | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant if (dhcpClientIsOn==0). Fixed assigned routing prefix (sub network) length (e.g. for 198.51.100.0/24 the fixedIpV4AddressPrefixLength would be 24). |
| fixedDefaultGatewayIpV4Address | Ipv4Address | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant if ( (dhcpClientIsOn==0) AND (fixedDefaultGatewayConfigurationIsAvail==1) ). Fixed assigned IPv4 address of the default gateway. |
| 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. |
| arpProxy | arpProxyType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | openconfig-if-ip. Only relevant if (arpProxyIsAvail == 1). If set to a value different from '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 configured to 'REMOTE\_ONLY', replies are only sent when the target address falls outside the locally configured subnets on the interface. If configured to 'ALL', all requests regardless of their target address are answered. |
| \_ingressShapingProfile | invalid | 1..\* | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant if (ingressShapingIsAvail ==1). Reference to the definition of a shaping policy for ingress, to which this IP interface belongs to. |
| \_egressShapingProfile | invalid | 1..\* | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Only relevant if (egressShapingIsAvail ==1). Reference to the definition of a shaping policy for egress, to which this IP interface belongs to. |
| \_vpnProfileBinding | invalid | 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. |
| \_qosProfile | invalid | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Reference to the definition of the QoS profile, which shall be applied on this IP interface. |
| layer3FlowStatisticsIsOn | Boolean | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | 1 = Layer 3 statistics collection is switched on. |
| problemKindSeverityList | IpInterfaceProblemSeverityType | 0..\* | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Severity of the problems to be configured. |

### IpInterfaceStatus

Applied stereotypes:

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

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 | 1 = IP interface is currently activated. |
| ipV4AddressCur | Ipv4Address | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | IPv4 address, which is 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 | Routing prefix (sub network) length, which is currently active on this interface (e.g. for 198.51.100.0/24 the ipV4AddressPrefixLengthCur would be 24). |
| defaultGatewayIpV4AddressCur | Ipv4Address | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | IPv4 address of the default gateway, which is currently active on this interface. |
| ipAddressOrigin | ipAddressOriginType | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | openconfig-if-ip. Describes the origin of the currently active IP address information, e.g. statically configured, assigned by DHCP, etc.. |
| neighborList | neighborType | 0..\* | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | openconfig-if-ip. Current IP and MAC addresses of the remote site of the IP link. |
| 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. |
| \_availableVpnList | invalid | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA | List of currently configured VPNs. |
| vpnBindingIsUp | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | 1 = Binding to a VPN definition is currently effective. |
| layer3FlowStatisticsIsUp | Boolean | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | 1 = Layer 3 flow statistics are currently collected and aggregated. |

### IpInterfaceCurrentProblems

Applied stereotypes:

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

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: NO |  |

### IpInterfaceCurrentPerformance

Applied stereotypes:

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

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 |  |

### IpIntefaceHistoricalPerformances

Applied stereotypes:

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

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 |  |

### IpCurrentProblem

Applied stereotypes:

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

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 | DateTime | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |
| problemSeverity | SeverityType | 1 | R | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

### LayerProtocol

Applied stereotypes:

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

Attributes for LayerProtocol

Table 1: Attributes for LayerProtocol

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_lpSpecReference | IpInterface\_Pac | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NA |  |

## Data Types

### neighborType

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

Applied Stereotypes:

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. |

### 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: NO | Name of the alarm according to IpInterface\_Pac::IpInterfaceCapability::supportedAlarmList |
| problemKindSeverity | SeverityType | 1 | RW | OpenModelAttribute   * valueRange: no range constraint * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: YES | Severity of this type of alarm. |

### 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: NO | Name of the alarm according to IpInterface\_Pac::IpInterfaceCapability::supportedAlarmList |

### 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). |

### 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: NO |  |

### 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: NO |  |

## Enumeration Types

### arpProxyType

openconfig-if-ip.

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:

### ipAddressOriginType

openconfig-if-ip. 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

openconfig-if-ip. 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:

### 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:

### SeverityType

Contains Enumeration Literals:

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

## Primitive Types

Normal back matter in the document.