

Chapter 30

Interpret the Enterprise-Specific VPN MIB

The enterprise-specific virtual private network (VPN) MIB, whose object identifier is {jnxMibs 26}, provides monitoring for Layer 3 VPNs, Layer 2 VPNs, and virtual private LAN service (VPLS) (read access only). For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-vpn.txt.



NOTE: The Simple Network Management Protocol (SNMP) cannot be associated with any routing instances other than the master routing instance.

The JUNOS software does not support VPN traps.

This chapter discusses the following topics:

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jnxVpnPwTable on page 343

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jnxVpnInfo

jnxVpnInfo contains information about the number of configured VPNs and active VPNs.



NOTE: For jnxVpnInfo, the JUNOS software supports only jnxVpnConfiguredVpns and jnxVpnActiveVpns.

Table 61: jnxVpnInfo

Object	Object Identifier	Description
jnxVpnConfiguredVpns	jnxVpnInfo 1	Number of configured VPNs.
jnxVpnActiveVpns	jnxVpnInfo 2	Number of active VPNs.

jnxVpnTable

jnxVpnTable lists configured VPNs.



NOTE: For jnxVpnTable, the JUNOS software does not support vpnConfiguredSites, vpnLocalAddresses, vpnTotalAddresses, and vpnActiveSites objects.

jnxVpnEntry

JnxVpnEntry contains information about a configured VPN with the objects listed in Table 62.

Table 62: jnxVpnTable

Object	Object Identifier	Description
jnxVpnType	jnxVpnEntry 1	VPN type.
jnxVpnName	jnxVpnEntry 2	VPN name. The VPN name must be unique for each provider edge router.
jnxVpnRowStatus	jnxVpnEntry 3	Creates, modifies, or deletes a row in this table.
jnxVpnStorageType	jnxVpnEntry 4	Identifies the storage type.
jnxVpnDescription	jnxVpnEntry 5	VPN description.
jnxVpnIdentifierType	jnxVpnEntry 6	Type of jnxVpnIdentifier.
jnxVpnIdentifier	jnxVpnEntry 7	For Border Gateway Protocol (BGP) VPNs, the route distinguisher for the VPN. For Label Distribution Protocol (LDP) VPNs, the virtual circuit (VC) ID for the circuit. A value of all zeros indicates that a route distinguisher and a VC ID are not configured for the VPN.
jnxVpnVpnAge	jnxVpnEntry 12	How old the VPN is, in hundredths of a second.

jnxVpnIfTable

The jnxVpnIfTable lists VPN interfaces.



For jnxVpnIfProtocol, the JUNOS software supports only L2VPN and VPLS. The JUNOS software does not support vpnIfInBandwidth (jnxVpnIfEntry 8) and vpnIfOutBandwidth (jnxVpnIfEntry 9).

jnxVpnIfEntry

jnxVpnIfEntry contains information about VPN interfaces, and has objects listed in Table 63.

Table 63: jnxVpnIfEntry

Object	Object Identifier	Description
jnxVpnIfVpnType	jnxVpnIfEntry 1	The VPN type associated with an interface.
jnxVpnIfVpnName	jnxVpnIfEntry 2	The VPN name associated with an interface.
jnxVpnIfIndex	jnxVpnIfEntry 3	The interface index in the VPN. Each interface in the VPN is assigned a unique index. The index cannot be 0.
jnxVpnIfRowStatus	jnxVpnIfEntry 4	Creates, modifies, or deletes a row in this table.
jnxVpnIfStorageType	jnxVpnIfEntry 5	The storage type for this object.
jnxVpnIfAssociationPw	jnxVpnIfEntry 6	The index of associated pseudo-wire. If there is no index associated with a pseudo-wire, the index is 0. A pseudo-wire is a mechanism that carries essential elements of an emulated circuit from one PE to one or more other PEs over a PSN.

Object	Object Identifier	Description
jnxVpnIfProtocol	jnxVpnIfEntry 7	<p>Indicates the protocol running over a VPN interface.</p> <p>This object contains the following values:</p> <ul style="list-style-type: none"> other (0) frameRelay(1) atmAal5(2) atmCell(3) ethernetVlan(4) ethernet(5) ciscoHdlc(6) ppp(7) cem(8) atmVcc(9) atmVpc(10) vpls(11) ipInterworking(12) snapInterworking(13) static(20) rip(21) ospf(22) bgp(23)
jnxVpnIfStatus	jnxVpnIfEntry 10	<p>Displays the status of a monitored VPN interface.</p> <p>This object contains the following values:</p> <ul style="list-style-type: none"> unknown(0) noLocalInterface(1) disabled(2) encapsulationMismatch(3) down(4) up(5)

jnxVpnPwTable

jnxVpnPwTable lists pseudo-wire connections.



For the jnxVpnPwTable, the JUNOS software supports only L2VPN and VPLS. The JUNOS software supports only the objects listed in Table 64 on page 343.

jnxVpnPwEntry

jnxVpnPwEntry contains pseudo-wire information about a VPN that is being monitored, and has the objects listed in Table 64.

Table 64: jnxVpnPwEntry

Object	Object Identifier	Description
jnxVpnPwVpnType	jnxVpnPwEntry 1	The type of VPN type associated with a pseudo-wire
jnxVpnPwVpnName	jnxVpnPwEntry 2	The VPN name associated with a pseudo-wire.
jnxVpnPwIndex	jnxVpnPwEntry 3	The pseudo-wire index in the VPN. Each pseudo-wire is assigned a unique index. The index is not 0. The RowStatus notes whether a given pseudo-wire; for example, a row in this table is valid.
jnxVpnPwRowStatus	jnxVpnPwEntry 4	Creates, modifies, and deletes a row in this table.
jnxVpnPwStorageType	jnxVpnPwEntry 5	The storage type for this object.
jnxVpnPwAssociatedInterface	jnxVpnPwEntry 6	The VPN index of the interface associated with a pseudo-wire. If there is no interface associated with a pseudo-wire, 0 is returned.
jnxVpnPwLocalSiteId	jnxVpnPwEntry 7	The local site identifier for a pseudo-wire. When there is no local site identifier, 0 is returned.
jnxVpnPwRemoteSiteId	jnxVpnPwEntry 8	The remote site identifier. For example, the site at the end of the pseudo-wire. When there is no remote site identifier, 0 is returned.
jnxVpnPwRemotetPeldAddrType	jnxVpnPwEntry 9	The remote PE's address. For example, the router the end of the pseudo-wire.

Object	Object Identifier	Description
jnxVpnPwRemotePeldAddress	jnxVpnPwEntry 10	<p>The type of the tunnel over which the pseudo-wire is carried. If several pseudo-wires can be carried in one tunnel, each pseudo-wire is identified by the multiplexer or demultiplexer within a tunnel.</p> <p>The object can contain the following values:</p> <ul style="list-style-type: none"> static(1) gre(2) l2tpv3(3) ipSec(4) ldp(5) rsvpTe(6) crLdp(7)
jnxVpnPwReceiveDemux	jnxVpnPwEntry 13	<p>The demultiplexer value that identifies received packets associated with this pseudo-wire.</p>
jnxVpnPwTransmitDemux	jnxVpnPwEntry 14	<p>The demultiplexer value that identifies transmitted packets associated with this pseudo-wire.</p>
jnxVpnPwStatus	jnxVpnPwEntry 15	<p>The status of the pseudo-wire.</p> <p>The object can have the following values:</p> <ul style="list-style-type: none"> unknown(0) down(1) up(2)
jnxVpnPwRemoteSiteStatus	jnxVpnPwEntry 17	<p>The interface status at the remote end of the pseudo-wire.</p> <p>The object can have the following values:</p> <ul style="list-style-type: none"> unknown(0) outOfRange (1) down (2) up(3)
jnxVpnPwTimeUp	jnxVpnPwEntry 18	<p>The time, in hundredths of a second, that a pseudo-wire has been operational.</p>
jnxVpnPwTransitions	jnxVpnPwEntry 19	<p>The number of state transitions (up to down and down to up) that a tunnel has undergone.</p>
jnxVpnPwLastTransition	jnxVpnPwEntry 20	<p>The time, in hundredths of a second, since a the last transition occurred in a tunnel.</p>

jnxVpnRTTable

The jnxVpnRTTable contains route targets for a VPN.

jnxVpnRTEntry

jnxVpnRTEntry lists route targets for a given VPN, and has the objects listed in Table 65.

Table 65: jnxVpnRTEntry

Object	Object Identifier	Description
jnxVpnRTVpnType	jnxVpnRTEntry 1	The VPN type for which this list of route targets is defined.
jnxVpnRTVName	jnxVpnRTEntry 2	The VPN name for which this list of route targets is defined.
jnxVpnRTVIndex	jnxVpnRTEntry 3	The index within the list of route targets that specifies individual route targets that define the VPN. This index is not 0.
jnxVpnRTVRowStatus	jnxVpnRTEntry 4	Creates, modifies, or deletes a row in this table.
jnxVpnRTVStorageType	jnxVpnRTEntry 5	The storage type for this object
jnxVpnRTType	jnxVpnRTEntry 6	Type of the following route target. The type can be routeTarget[012] or none.
jnxVpnRT	jnxVpnRTEntry 7	VPN route target. If jnxVpnRtype is none, the value must be all zeros.
jnxVpnRTVFunction	jnxVpnRTEntry 8	The route target export distribution type.

