

Chapter 29

Interpreting the Enterprise-Specific Interface MIB

The interface MIB extends the standard ifTable (RFC 2863) with additional statistics and Juniper Networks enterprise-specific chassis information. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos71/swconfig71-net-mgmt/html/mib-jnx-if-extensions.txt.

This chapter discusses the following topics:

jnxIfTable on page 334

ifChassisTable on page 336

jnxIfTable

jnxIfTable lists traffic statistics, input errors, and output errors for an interface.

jnxIfEntry

jnxIfEntry objects are listed in Table 61.

Table 61: jnxIfTable

Object	Object Identifier	Description
ifIn1SecRates	ifJnxEntry 1	The number of bits per second delivered by this sublayer to its next higher sublayer.
ifIn1SecOctets	ifJnxEntry 2	The number of octets per second delivered by this sublayer to its next higher sublayer.
ifIn1SecPkts	ifJnxEntry 3	The number of packets per second delivered by this sublayer to its next higher sublayer.
ifOut1SecRate	ifJnxEntry 4	The number of bits per second delivered by this sublayer to its next lower sublayer.
ifOut1SecOctets	ifJnxEntry 5	The number of octets per second delivered by this sublayer to its next lower sublayer.
ifOut1SecPkts	ifJnxEntry 6	The number of packets per second delivered by this sublayer to its next lower sublayer.
ifHCIn1SecRate	ifJnxEntry 7	The number of bits per second delivered by this sublayer to its next higher sublayer. This object is a 64-bit version of ifIn1SecRate.
ifHCOut1SecRate	ifJnxEntry 8	The number of bits per second delivered by this sublayer to its next lower sublayers. This object is a 64-bit version of ifOut1SecRate.
ifJnxInErrors	ifJnxEntry 9	Errors: The sum of the incoming frame aborts and FCS errors.
ifJnxInFrameErrors	ifJnxEntry 10	Framing Errors: The number of input packets that were misaligned.
ifJnxInQDrops	ifJnxEntry 11	Drops: The number of packets dropped by the input queue of the I/O Manager ASIC.
ifJnxInRunts	ifJnxEntry 12	Runts: Frames received that are smaller than the runt threshold.
ifJnxInGiants	ifJnxEntry 13	Giants: Frames received that are larger than the giant threshold.
ifJnxInDiscards	ifJnxEntry 14	Policed discards: Frames that the incoming packet match code discarded because they were not recognized or of interest.
ifJnxInHslCrcErrors	ifJnxEntry 15	HS link CRC errors: The number of CRC errors on the high-speed links between the ASICs responsible for handling the router interfaces while receiving packets.
ifJnxInHslFifoOverFlows	ifJnxEntry 16	HS link FIFO overflows: The number of FIFO overflows on the high-speed links between the ASICs responsible for handling the router interfaces.

Object	Object Identifier	Description
ifJnxInL3Incompletes	ifJnxEntry 17	L3 incompletes: The number of incoming packets that fail Layer 3 sanity checks of the header.
ifJnxInL2ChanErrors	ifJnxEntry 18	L2 channel errors: The number of incoming packets for which the software could not find a valid logical interface.
ifJnxInL2MismatchTimeouts	ifJnxEntry 19	L2 mismatch timeouts: The count of malformed or short packets that cause the incoming packet handler to discard the frame as unreadable.
ifJnxInInvalidVCs	ifJnxEntry 20	Invalid VCs: The number of cells that arrived for a nonexistent virtual circuit
ifJnxInFifoErrors	ifJnxEntry 21	FIFO errors: The number of FIFO errors in the received direction as reported by the ASIC on the PIC.
ifJnxBucketDrops	ifJnxEntry 22	Bucket drops: Drops because traffic load exceeded the interface transmit and receive leaky bucket configuration.
ifJnxSramErrors	ifJnxEntry 23	SRAM errors: This counter increments when a hardware error has occurred in the SRAM on the PIC.
ifJnxOutErrors	ifJnxEntry 24	Errors: The sum of the outgoing frame aborts and FCS errors.
ifJnxCollisions	ifJnxEntry 25	Collisions: The number of output collisions detected on this interface.
ifJnxCarrierTrans	ifJnxEntry 26	Carrier transitions: The number of times the interface saw the carrier signal transition.
ifJnxOutQDrops	ifJnxEntry 27	Drops: The number of packets dropped by the output queue of the I/O Manager ASIC.
ifJnxOutAgedErrors	ifJnxEntry 28	Aged packets: The number of packets that remained in shared packet SDRAM for so long that the system automatically purged them.
ifJnxOutFifoErrors	ifJnxEntry 29	FIFO errors: The number of FIFO errors in the transmit direction as reported by the ASIC on the PIC.
ifJnxOutHslFifoUnderFlows	ifJnxEntry 30	HS link FIFO underflows: The number of FIFO underflows on the high-speed links between the ASICs responsible for handling the router interfaces.
ifJnxOutHslCrcErrors	ifJnxEntry 31	HS link CRC errors: The number of CRC errors on the high-speed links between the ASICs responsible for handling the router interfaces while transmitting packets.

ifChassisTable

ifChassisTable provides additional interface and chassis information.

ifChassisEntry

ifChassisEntry objects are listed in Table 62.

Table 62: ifChassisTable

Object	Object Identifier	Description
ifChassisFpc	ifChassisEntry 1	<p>The number of the FPC card on which the interface is located in the chassis. It is the chassis slot in which the FPC card is installed for the specified interface.</p> <p>Although the number is labeled from 0 and up in the chassis, the return value for this object always starts from 1 according to Network Management convention. Therefore, a value of zero means there is no real or physical FPC associated with the specified interface.</p>
ifChassisPic	ifChassisEntry 2	<p>The number of the PIC card on which the interface is located in the chassis. It is the PIC location on the FPC card for the specified interface.</p> <p>Although the number is labeled from 0 and up in the chassis, the return value for this object always starts from 1 according to Network Management convention. Therefore, a value of zero means there is no real or physical PIC associated with the specified interface.</p>
ifChassisPort	ifChassisEntry 3	<p>The number of the port on the PIC card on which the interface is located in the chassis. It is the port number on the PIC card for the specified interface.</p> <p>Although the number is labeled from 0 and up in the chassis, the return value for this object always starts from 1 according to Network Management convention. Therefore, a value of zero means there is no real or physical port associated with the specified interface.</p>
ifChassisChannel	ifChassisEntry 4	<p>The channel identifier for the specified interface if it is part of a channelized interface.</p> <p>Although the channel is numbered from 0 and up in the interface naming, the return value for this object always starts from 1 according to Network Management convention. For an interface that could not be channelized, this object returns zero.</p>

Object	Object Identifier	Description
ifChassisLogicalUnit	ifChassisEntry 5	<p>The logical unit number of the specified interface. It is the logical part of the interface that is configured on the physical or channel part, if any.</p> <p>Although the logical unit number is numbered from 0 and up in the interface naming, the return value for this object always starts from 1 according to Network Management convention. For an interface that is really a physical device, this value returns zero.</p>
ifChassisPicIndex	ifChassisEntry 6	<p>The indexes for the chassis MIB tables. This is the instance index that keys into jnxContentsTable in the chassis MIB.</p> <p>For example, the octet string of 8.1.2.0 means a PIC ("8" first digit) at FPC slot 0 ("1-1", second digit minus one if nonzero) PIC number 1 ("2-1", third digit) minus one if nonzero port number whatever (fourth digit currently unused) which in turn could be plugged in by NMS directly after any MIB objects in the jnxContentsTable gets that PIC object for the specified interface. This object is valid only for interfaces having real and physical PIC cards. Otherwise, it returns an octet string "0.0.0.0."</p>

