

Chapter 9

Juniper Networks Enterprise-Specific MIBs

The JUNOS software supports the following enterprise-specific Management Information Bases (MIBs):

Alarm MIB—Provides support for alarms from the router. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-chassis-alarm.txt.

ATM CoS MIB—Provides support for monitoring Asynchronous Transfer Mode, version 2 (ATM2) virtual circuit (VC) class of service (CoS) configurations. It also provides CoS queue statistics for all VCs that have CoS configured. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-atm-cos.txt.

ATM MIB—Provides support for ATM interfaces and virtual connections. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-atm.txt.

BGP4 V2 MIB—Contains objects used to monitor Border Gateway Protocol (BGP) peer-received prefix counters. It is based upon similar objects in the MIB documented in Internet draft, draft-ietf-idr-bgp4-mibv2-03.txt, *Definitions of Managed Objects for the Fourth Version of Border Gateway Protocol (BGP-4), Second Version*. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-bgpmib2.txt.

Chassis MIB—Provides support for environmental monitoring (power supply state, board voltages, fans, temperatures, and air flow) and inventory support for the chassis, System Control Board (SCB), System and Switching Board (SSB), Switching and Forwarding Model (SFM), Flexible PIC Concentrators (FPCs), and Physical Interface Cards (PICs). For more information about the chassis MIB, see “Interpret the Enterprise-Specific Chassis MIBs” on page 213. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-chassis.txt.

Chassis Definitions for Router Model MIB—Contains the object identifiers (OIDs) that are used by the chassis MIB to identify platform and chassis components. The chassis MIB provides information that changes often, while the chassis definitions for router model MIB provide information that changes less often. For more information about the chassis definitions for the router model MIB, see “Chassis Definitions for Router Model MIB” on page 301. For a downloadable version of the chassis definitions for router mode MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-chas-defines.txt.

Class of Service MIB—Provides support for monitoring interface output queue statistics per interface and per forwarding class. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-cos.txt.

Configuration Management MIB—Provides notification for configuration changes as SNMP traps. Each trap contains the time at which the configuration change was committed, the name of the user who made the change, and the method by which the change was made. A history of the last 32 configuration changes is kept in `jnxCmChgEventTable`. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-cfgmgmt.txt.

Destination Class Usage MIB—Provides support for monitoring packet counts based on the ingress and egress points for traffic transiting your networks. Ingress points are identified by input interface. Egress points are identified by destination prefixes grouped into one or more sets, known as destination classes. One counter is managed per interface per destination class, up to a maximum of 16 counters per interface. For information about the destination class usage MIB, see “Interpret the Enterprise-Specific Destination Class Usage MIB” on page 303. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-dcu.txt.

Ethernet MAC MIB—Monitors media access control (MAC) statistics on Gigabit Ethernet intelligent queuing (IQ) interfaces. It collects MAC statistics; for example, inoctets, inframes, outoctets, and outframes on each source MAC address and virtual LAN (VLAN) ID for each Ethernet port. For more information about the Ethernet MAC MIB, see the “Interpret the Enterprise-Specific Ethernet MAC MIB” on page 331. To view this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-mac.txt.

Experimental MIB—Contains object identifiers for experimental MIBs. To view this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-exp.txt.

Firewall MIB—Provides support for monitoring firewall filter counters. Routers must have the Internet Processor II ASIC to perform firewall monitoring. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-firewall.txt.

Interface MIB—Extends the standard ifTable (RFC 2863) with additional statistics and Juniper Networks enterprise-specific chassis information. For more information about this MIB, see “Interpret the Enterprise-Specific Interface MIB” on page 333. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-if-extensions.txt.

IPv4 MIB—Provides additional Internet Protocol version 4 (IPv4) address information, supporting the assignment of identical IPv4 addresses to separate interfaces. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-ipv4.txt.

IPv6 and ICMPv6 MIB—Provides IPv6 and Internet Control Message Protocol version 6 (ICMPv6) statistics. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-ipv6.txt.

LDP MIB—Provides Label-distribution Protocol (LDP) statistics and defines LDP label-switch path (LSP) notifications. LDP traps support only IPv4 standards. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-ldp.txt.

Monitoring Services MIB—Provides statistics on files, records, memory, FTP, and error states of a monitoring services interface. It also provides SNMP traps for unavailable destinations, unsuccessful file transfers, flow overloading, and memory overloading. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-coll.txt.

MPLS MIB—Provides Multiprotocol Label Switching (MPLS) information and defines MPLS notifications. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-mpls.txt.

Passive Monitoring MIB—Performs traffic flow monitoring and lawful interception of packets transiting between two routers. For more information about the passive monitoring MIB, see the *JUNOS Internet Software Feature Guide* and “Interpret the Enterprise-Specific Passive Monitoring MIB” on page 317. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-pmon.txt.

Ping MIB—Extends the standard ping MIB control table (RFC 2925). Items in this MIB are created when entries are created in pingCtlTable of the ping MIB. Each item is indexed exactly as it is in the ping MIB. For more information about the ping MIB, see “Interpret the Enterprise-Specific Ping MIB” on page 305. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-ping.txt.

Reverse-Path-Forwarding MIB—Monitors statistics for traffic that is rejected because of reverse-path-forwarding (RPF) processing. For more information about the reverse-path-forwarding MIB, see “Interpret the Enterprise-Specific Reverse-Path-Forwarding MIB” on page 313. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-rpf.txt.

RMON Events and Alarms MIB—Supports the JUNOS extensions to the standard remote monitoring (RMON) events and alarms MIB (RFC 2819). The extension augments alarmTable with additional information about each alarm. Two new traps are also defined to indicate when problems are encountered with an alarm. For more information about the RMON events and alarms MIB, see “Interpret the Enterprise-Specific RMON Events and Alarms MIB” on page 309. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-rmon.txt.

SONET/SDH Interface Management MIB—Monitors the current alarm for each SONET/SDH interface. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-sonet.txt.

SONET Automatic Protection Switching MIB—Monitors any SONET interface that participates in Automatic Protection Switching (APS). For more information about the SONET Automatic Protection Switching MIB, see “Interpret the Enterprise-Specific SONET APS MIB” on page 321. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-sonetaps.txt.

Source Class Usage MIB—Counts packets sent to customers by performing a lookup on the IP source address and the IP destination address. The source class usage (SCU) MIB makes it possible to track traffic originating from specific prefixes on the provider core and destined for specific prefixes on the customer edge. For more information about the source class usage MIB, see “Interpret the Enterprise-Specific Source Class Usage MIB” on page 315. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-scu.txt.

Structure of Management Information MIB—Explains how the Juniper Networks enterprise-specific MIBs are structured. For more information on the structure of management information (SMI) MIB, see “Interpret the Structure of Management Information MIB” on page 209. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-smi.txt.

Traceroute MIB—Supports the JUNOS extensions of traceroutes and remote operations. Items in this MIB are created when entries are created in the traceRouteCtlTable of the traceroute MIB. Each item is indexed exactly the same way as it is in the traceroute MIB. For more information about the traceroute MIB, see “Interpret the Enterprise-Specific Traceroute MIB” on page 307. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-traceroute.txt.

VPN MIB—Provides monitoring for Layer 3 VPNs, Layer 2 VPNs, and virtual private LAN service (VPLS) (read access only). For more information about the VPN MIB, see “Interpret the Enterprise-Specific VPN MIB” on page 339. For a downloadable version of this MIB, see www.juniper.net/techpubs/software/junos/junos63/swconfig63-net-mgmt/html/mib-jnx-vpn.txt.