

# Chapter 6

## Juniper Networks Enterprise-Specific MIBs

The JUNOS software supports the following enterprise-specific MIBs:

**ATM COS MIB**—Provides support for monitoring ATM2 VC 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/junos60/swconfig60-net-mgmt/html/mib-jnx-atm-cos.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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/junos60/swconfig60net-mgmt/html/mib-jnx-atm.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60net-mgmt/html/mib-jnx-atm.txt).

**Alarm MIB**—Provides support for alarms from the router. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-chassis-alarm.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-chassis-alarm.txt).

**BGP4 V2 MIB**—Contains objects used to monitor 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](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-bgpmib2.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/junos60/swconfig60-net-mgmt/html/mib-jnx-bgpmib2.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-bgpmib2.txt).

**Chassis MIB**—Provides support for environmental monitoring (power supply state, board voltages, fans, temperatures, air flow) and inventory support for the chassis, SCB, SSB, SFM, FPCs, and PICs. For more information about the chassis MIB, see “Interpret the Enterprise-Specific Chassis MIBs” on page 149. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-chassis.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-chassis.txt).

**Chassis Definitions for Router Model MIB**—Contains the 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 provides information that changes less often. For more information about the chassis definitions for router model MIB, see “Chassis Definitions for Router Model MIB” on page 216. For downloadable version of the chassis definitions for router mode MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-chas-defines.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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/junos60/swconfig60-net-mgmt/html/mib-jnx-cos.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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 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/junos60/swconfig60-net-mgmt/html/mib-jnx-cfgmgmt.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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 217. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-dcu.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-dcu.txt).

• Ethernet MAC MIB—Monitors media access control statistics on Gigabit Ethernet QPP interfaces. It collects MAC statistics; for example, inoctets, inframes, outoctets, and outframes on each source MAC address and 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 243. To view this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-mac.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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/junos60/swconfig60-net-mgmt/html/mib-jnx-exp.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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/junos60/swconfig60-net-mgmt/html/mib-jnx-firewall.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-firewall.txt).

• Interface MIB—Extends 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 245. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-if-extensions.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-if-extensions.txt).

• IPv4 MIB—Provides additional 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/junos60/swconfig60-net-mgmt/html/mib-jnx-ipv4.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-ipv4.txt).

• IPv6 and ICMPv6 MIB—Provides IPv6 and ICMPv6 statistics. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-ipv6.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-ipv6.txt).

• LDP MIB—Defines LDP LSP notifications. LDP traps support only IPv4 standards. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-ldp.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-ldp.txt).

• MPLS MIB—Provides MPLS information and defines MPLS notifications. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-mpl.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-mpl.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 229. For a downloadable version of this MIB, see the [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-pmon.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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 219. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-ping.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-ping.txt).

RMON Events and Alarms MIB—Supports the JUNOS extensions to the standard 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 223. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-rmon.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-rmon.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 225. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-rpf.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-rpf.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/junos60/swconfig60-net-mgmt/html/mib-jnx-sonet.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-sonet.txt).

SONET Automatic Protection Switching MIB—Monitors any SONET interface that participates in APS. For more information about the SONET Automatic Protection Switching MIB, see “Interpret the Enterprise-Specific SONET Automatic Protection Switching MIB” on page 233. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-sonetaps.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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. SCU 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 227. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-scu.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-scu.txt).

• Structure of Management Information (SMI) MIB—Explains how the Juniper Networks enterprise-specific MIBs are structured. For more information on the SMI MIB, see For a downloadable version of this MIB, see “The Structure of Information Management MIB” on page 145. [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-smi.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-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 221. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-traceroute.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-traceroute.txt).

• VPN MIB—Provides monitoring for Layer 3 VPNs, Layer 2 VPNs, and VPLS (read access only). For more information about the VPN MIB, see “Interpret the Enterprise-Specific VPN MIB” on page 249. For a downloadable version of this MIB, see [www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-vpn.txt](http://www.juniper.net/techpubs/software/junos/junos60/swconfig60-net-mgmt/html/mib-jnx-vpn.txt).