



CHAPTER 3

MIB Specifications

This chapter describes each Management Information Base (MIB) on the Cisco 7200 series router, and the Cisco 7201 router. Each description lists any constraints about how the MIB is implemented on the respective Cisco 7200 series router platform.

Unless noted otherwise, the Cisco 7200 series implementation of a MIB follows the standard. Any objects not listed in a table are implemented as defined in the MIB. For detailed MIB descriptions, see the MIB.



Note

Not all MIBs included in a Cisco IOS software release are fully supported by the router. Some MIBs are not supported at all. Other MIBs might work, but they have not been tested on the router. In addition, some MIBs are deprecated but cannot be removed from the software. When a MIB is included in the image, this does not necessarily mean it is supported by the Cisco 7200 series platform.

The Cisco 7200 series (Cisco 7204VXR, Cisco 7206VXR routers) support the port adapters listed in the following document on Cisco.com”:

- *Cisco 7200 Series Routers Port Adapter Documentation Roadmap*

http://www.cisco.com/en/US/docs/routers/7200/roadmaps/7200_series_port_adapter_doc_roadmap/3530.html

The Cisco 7201 router supports the port adapters listed in the following document on Cisco.com:

- *Cisco 7201 Router Port Adapter Documentation Roadmap*

http://www.cisco.com/en/US/docs/routers/7200/roadmaps/7201_port_adaper_doc_roadmap/11366pr.html

Cisco 7200 MIBs

The following tables list the categories of MIBs in the c7200 Image for Cisco IOS Release 12.2SB REL4 for configurations on the Cisco 7200 router:

- Supported and verified MIBs (tested for Cisco 7200)
- Supported and not verified MIBs (not tested for Cisco 7200 image)
- Not verified and not supported MIBs



Note

The RFC versions are listed to show the MIB versions we support.

**Note**

Not all MIBs included in a Cisco IOS software release are fully supported by the router. Some MIBs are not supported at all. Other MIBs might work, but they have not been tested on the router. In addition, some MIBs are deprecated but cannot be removed from the software. The fact that the MIB is included in the image does not necessarily mean it is supported by the Cisco 7200 platform.

Supported and Verified MIBs

Table 3-1 lists the MIBs in the c7200 image that are *supported* and *verified* in Cisco IOS Release 12.2SB REL4 on the Cisco 7200 router.

Table 3-1 Supported and Verified Cisco 7200 MIBs

ATM-MIB (RFC 1695)	CISCO-SYSLOG-MIB
BGP4-MIB (RFC 1657)	CISCO-TC
CISCO-AAA-SERVER-MIB	CISCO-TCP-MIB
CISCO-AAL5-MIB	CISCO-VLAN-IFTABLE-RELATIONSHIP-MIB
CISCO-ACCESS-ENVON-MIB	CISCO-VPDN-MGMT-MIB
CISCO-ATM-EXT-MIB	CISCO-VPDN-MGMT-EXT-MIB
CISCO-BULK-FILE-MIB	ENTITY-MIB (RFC 2737)
CISCO-CDP-MIB	ETHERLIKE-MIB (RFC 2665)
CISCO-CLASS-BASED-QOS-MIB	EVENT-MIB (RFC 2981)
CISCO-CONFIG-COPY-MIB	EXPRESSION-MIB
CISCO-CONFIG-MAN-MIB	IF-MIB (RFC 2233)
CISCO-ENTITY-ALARM-MIB	IP-LOCALPOOL-MIB
CISCO-ENTITY-ASSET-MIB	MPLS-LDP-MIB
CISCO-ENTITY-EXT-MIB	MPLS-LSR-MIB
CISCO-ENTITY-FRU-CONTROL-MIB	MPLS-TE-MIB
CISCO-ENTITY-PFE -MIB	MPLS-VPN-MIB
CISCO-ENTITY-SENSOR-MIB	NOTIFICATION-LOG-MIB (RFC3014)
CISCO-ENTITY-VENDORTYPE-OID-MIB	OLD-CISCO-CHASSIS-MIB
CISCO-ENVMON-MIB	OLD-CISCO-CPU-MIB
CISCO-FLASH-MIB	OLD-CISCO-INTERFACES-MIB
CISCO-FRAME-RELAY-MIB	OLD-CISCO-IP-MIB
CISCO-FTP-CLIENT-MIB	OLD-CISCO-MEMORY-MIB
CISCO-HSRP-EXT-MIB	PIM-MIB (RFC 2934)
CISCO-HSRP-MIB	RFC1213-MIB (MIB II)
CISCO-IETF-IP-MIB	RFC1243-MIB (AppleTalk)
CISCO-IMAGE-MIB	RFC1253-MIB (OSPF)
CISCO-IPMROUTE-MIB	RFC1315-MIB (FRAME RELAY MIB)
CISCO-IP-STAT-MIB	RFC2495-MIB (DS1)

Table 3-1 Supported and Verified Cisco 7200 MIBs (continued)

CISCO-MEMORY-POOL-MIB	RFC2496-MIB (DS3)
CISCO-NBAR-PROTOCOL-DISCOVERY-MIB	RMON-MIB (RFC 1757)
CISCO-PING-MIB	SNMP-FRAMEWORK-MIB (RFC 2571)
CISCO-PPPOE-MIB	SNMPv2-MIB (RFC 1907)
CISCO-PROCESS-MIB	SNMP-NOTIFICATION-MIB (RFC 2573)
CISCO-PRODUCTS-MIB	SNMP-TARGET-MIB (RFC 2573)
CISCO-QUEUE-MIB	SNMP-USM-MIB (RFC 2574)
CISCO-RTTMON-MIB	SNMP-VACM-MIB (RFC 2575)
CISCO-SMI	SONET MIB
CISCO-SSG-MIB	TCP-MIB (RFC 2012)
CISCO-NETFLOW-MIB	UDP-MIB (RFC 2013)
CISCO-AAA-SESSION-MIB	---

Supported, Not Verified MIBs

Table 3-2 lists the MIBs in the c7200 image that are *supported but not verified* in Cisco IOS Release 12.2SB REL4 for the Cisco 7200 router.

Table 3-2 Cisco 7200 Router MIBs—Support Not Verified in the c7200 Image

ATM-FORUM-ADDR-REG-MIB	CISCO-SNAPSHOT-MIB
ATM-FORUM-MIB	CISCO-STUN-MIB
BRIDGE-MIB (RFC 1493)	DLSW-MIB
CISCO-ALPS-MIB	HC-RMON-MIB
CISCO-ASPP-MIB	SOURCE-ROUTING-MIB
CISCO-BGP4-MIB	IGMP-MIB
CISCO-BSC-MIB	INT-SERV-GUARANTEED-MIB
CISCO-BSTUN-MIB	INT-SERV-MIB
CISCO-BUS-MIB	LAN-EMULATION-CLIENT-MIB
CISCO-CAR-MIB	CISCO-SNADLC-CONV01-MIB
CISCO-CASA-FA-MIB	MSDP-MIB
CISCO-CASA-MIB	NOVELL-IPX-MIB
CISCO-CIRCUIT-INTERFACE-MIB	NOVELL-RIPSAP-MIB
CISCO-DLCSW-MIB	OLD-CISCO-APPLETALK-MIB
CISCO-DLSW-EXT-MIB	OLD-CISCO-DECNET-MIB
CISCO-DLSW-MIB	OLD-CISCO-NOVELL-MIB
CISCO-DSPU-MIB	OLD-CISCO-SYSTEM-MIB
CISCO-FRAS-HOST-MIB	OLD-CISCO-TCP-MIB
CISCO-IETF-ATM2-PVCTRAP-MIB	OLD-CISCO-TS-MIB

Table 3-2 Cisco 7200 Router MIBs—Support Not Verified in the c7200 Image (continued)

CISCO-IETF-IP-FORWARD-MIB	RFC1231-MIB (Token Ring MIB)
CISCO-SDLLC-MIB	RFC1381-MIB (X.25 LAPB)
CISCO-LEC-DATA-VCC-MIB	RFC1382-MIB (X.25 Packet Layer)
CISCO-LEC-EXT-MIB	RFC2006-MIB (MIP)
CISCO-LECS-MIB	RMON2-MIB
CISCO-LES-MIB	RS-232-MIB
CISCO-NTP-MIB	RSVP-MIB
CISCO-PIM-MIB	SMON-MIB
CISCO-QLLC01-MIB	SNA-SDLC-MIB
CISCO-RMON-SAMPLING-MIB	SNMP-PROXY-MIB
CISCO-RSRB-MIB	—

Not Verified or Unsupported MIBs

Table 3-3 lists the Cisco 7200 MIBs included in c7200 image that are *not verified* or *unsupported* in Cisco IOS Release 12.2SB REL4.

Table 3-3 Not Verified or Unsupported Cisco 7200 Router MIBs in the c7200 Image

CISCO-OAM-MIB

ATM-MIB

The ATM-MIB (RFC 1695) contains the ATM and ATM adaptation layer 5 (AAL5) objects used to manage logical and physical entities and the relationship between them, such as ATM interfaces, virtual links, cross connects, and AAL5 entities and connections.

MIB Constraints

Table 3-4 lists the constraints that the Cisco 7200 router places on objects in the ATM-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-4 ATM-MIB Constraints

MIB Object	Notes
atmInterfaceDs3PlcpTable	Not used in Cisco 7200.
atmInterfaceTCTable	Not supported.
atmTrafficDescrParamTable	
• atmTrafficDescrType	Read-only.
• atmTrafficDescrParam1	Read-only.
• atmTrafficDescrParam2	Read-only.
• atmTrafficDescrParam3	Read-only.
• atmTrafficDescrParam4	Read-only.
• atmTrafficDescrParam5	Read-only.
• atmTrafficQoSClass	Read-only.
atmVplTable	Not supported.
atmVclTable	
• atmVclAdminStatus	Read-only.
• atmVclReceiveTrafficDescrIndex	Read-only.
• atmVclTransmitTrafficDescrIndex	Read-only.
• atmVccAalType	Read-only.
• atmVccAal5CpcsTransmitSduSize	Read-only. Default value 4470.
• atmVccAal5CpcsReceiveSduSize	Read-only. Default value 4470.
• atmVccAal5EncapsType	Read-only.

Table 3-4 ATM-MIB Constraints (continued)

MIB Object	Notes
• atmVclCrossConnectIdentifier	Read-only.
• atmVclRowStatus	Read-only.
• atmVclCastType	Not supported.
• atmVclConnKind	Not supported.
atmVpCrossConnectTable	
• atmVcCrossConnectIndexNext	Not supported.
atmVcCrossConnectTable	
Not implemented.	
aal5VccTable	
• atmTrafficDescrParamIndexNext	Not supported.

1 The ifType for the ifIndex used in the ATM-MIB tables must be of type atm(37).

ATM-FORUM-ADDR-REG-MIB

The ATM-FORUM-ADDR-REG-MIB contains information about ATM user-network interface (UNI) addresses and ports. The MIB also contains ATM address registration administration information.

There are no constraints on this MIB.

ATM-FORUM-MIB

The ATM-FORUM-MIB contains ATM object definitions and object identifiers (OIDs).

BGP4-MIB

The BGP4-MIB (RFC 1657) provides access to information related to the implementation of the Border Gateway Protocol (BGP). The MIB provides:

- BGP configuration information
- Information about BGP peers and messages exchanged with them
- Information about advertised networks

MIB Constraints

Table 3-5 lists the constraints that the Cisco 7200 router places on objects in the BGP4-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-5 BGP4-MIB Constraints

MIB Object	Notes
bgpPeerTable	
• bgpPeerConnectRetryInterval	Read-only.
• bgpPeerMinASOriginationInterval	Read-only.
• bgpPeerMinRouteAdvertisementInterval	Read-only.
• bgpPeerKeepAliveConfigured	Read-only.
• bgpPeerHoldTimeConfigured	Read-only.
bgpRcvdPathAttrTable	
• bgpPathAttrPeer	Obsolete.
• bgpPathAttrDestNetwork	Obsolete.
• bgpPathAttrOrigin	Obsolete.
• bgpPathAttrASPath	Obsolete.
• bgpPathAttrNextHop	Obsolete.
• bgpPathAttrInterASMetric	Obsolete.

BRIDGE-MIB

The BRIDGE-MIB contains objects to manage Media Access Control (MAC) bridges between Local Area Network (LAN) segments, as defined by the IEEE 802.1D-1990 standard. This MIB is extracted from RFC 1493 and is intended for use with network management protocols in TCP/IP-based internets.

CISCO-AAA-SERVER-MIB

The CISCO-AAA-SERVER-MIB contains information about authentication, authorization, and accounting (AAA) servers within the router and external to the router. The MIB provides:

- Configuration information for AAA servers, including identities of external AAA servers
- Statistics for AAA functions
- Status (state) information for AAA servers

MIB Constraints

[Table 3-6](#) lists the constraints that the Cisco 7200 router places on objects in the CISCO-AAA-SERVER-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-6 CISCO-AAA-SERVER-MIB Constraints

MIB Object	Notes
casConfigTable	
• casAddress	Read-only.

Table 3-6 CISCO-AAA-SERVER-MIB Constraints (continued)

MIB Object	Notes
<ul style="list-style-type: none"> casAuthenPort 	Read-only. The default value is 1645.
<ul style="list-style-type: none"> casAcctPort 	Read-only. The default value is 1646.
<ul style="list-style-type: none"> casKey 	Read-only. This value always shown as " " (null string) for security reasons.
<ul style="list-style-type: none"> casConfigRowStatus 	Read-only.
casStatisticsTable	
<ul style="list-style-type: none"> casAuthorRequests 	For RADIUS servers, these values are always 0. (RADIUS does not make authorization requests.) Only TACACS+ servers can have nonzero values.
<ul style="list-style-type: none"> casAuthorRequestTimeouts 	
<ul style="list-style-type: none"> casAuthorUnexpectedResponses 	
<ul style="list-style-type: none"> casAuthorServerErrorResponses 	
<ul style="list-style-type: none"> casAuthorIncorrectResponses 	
<ul style="list-style-type: none"> casAuthorResponseTime 	
<ul style="list-style-type: none"> casAuthorTransactionSuccesses 	
<ul style="list-style-type: none"> casAuthorTransactionFailures 	
The configuration objects in the MIB are read-only. To configure AAA servers, use the CLI commands <code>aaa new-model</code> , <code>aaa authentication ppp</code> , <code>aaa authorization</code> , <code>aaa accounting</code> , and <code>radius-server host</code> .	

CISCO-AAA-SESSION-MIB

The CISCO-AAA-SESSION-MIB contains information about accounting sessions based on authentication, authorization, and accounting (AAA) protocols.

MIB Constraints

Table 3-7 lists the constraints that the Cisco 7200 router places on objects in the CISCO-AAA-Session-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-7 CISCO-AAA-SESSION-MIB Constraints

MIB Object	Notes
casnActiveTable	
<ul style="list-style-type: none"> casnDisconnect 	To use this object to disconnect from an AAA server through SNMP, you must have enabled the functionality through the CLI command <code>aaa session-mib disconnect</code> .

CISCO-AAL5-MIB

The CISCO-AAL5-MIB contains performance statistics for adaptation layer 5 (AAL5) virtual channel connections (VCCs). This MIB provides statistics not found in the cAal5VccTable in RFC 1695 (for example, packets and octets received and transmitted on the VCC).

There are no constraints on this MIB.

CISCO-ACCESS-ENVMON-MIB

The CISCO-ACCESS-ENVMON-MIB indicates the reason for a power supply failure, which is information that is not provided in the ciscoEnvMonSupplyStatusTable in the CISCO-ENVMON-MIB. The CISCO-ACCESS-ENVMON-MIB also defines temperature and voltage notifications to replace those in CISCO-ENVMON-MIB.

CISCO-ALPS-MIB

The CISCO-ALPS-MIB provides Cisco airline protocol support for IBM-P1024B(ALC) and Unisys-P1024C(UTS) protocol encapsulation over TCP/IP. The MIB contains configuration and operational information for the protocol, which provides a tunneling mechanism to transport airline protocol data across a Cisco router-based TCP/IP network to an X.25-attached mainframe.

CISCO-ASPP-MIB

The CISCO-ASPP MIB provides configuration and operational information on asynchronous polled protocols such as the asynchronous security protocols that alarm-monitoring companies use. The protocols are handled in Pass-through mode. ASPP handles the receiving and sending of asynchronous blocks.

CISCO-ATM-EXT-MIB

The CISCO-ATM-EXT-MIB contains extensions to the Cisco ATM module that are used to manage ATM entities. It provides additional AAL5 performance statistics for a virtual channel connection (VCC) on an ATM interface.

**Note**

There are no constraints on this MIB and the ATM-EXT-MIB has only one table. The cAal5VccExtTable augments the aal5VccTable of the AAL5-MIB. The cAal5VccTable contains additional AAL5 performance parameters.

CISCO-BGP4-MIB

The CISCO-BGP4-MIB provides access to information related to the implementation of the Border Gateway Protocol (BGP). The MIB provides:

- BGP configuration information
- Information about BGP peers and messages exchanged with them
- Information about advertised networks

CISCO-BSC-MIB

The CISCO-BSC-MIB contains objects to manage binary synchronous communications (BSC) on the router, including BSC ports (serial interfaces) and BSC control units (stations on a port).

CISCO-BSTUN-MIB

The CISCO-BSTUN-MIB contains objects to manage Block Serial Tunnels (BSTUNs) on the router. The MIB provides global BSTUN information and contains configuration and operational information to manage BSTUN groups, ports, and routes.

CISCO-BULK-FILE-MIB

The CISCO-BULK-FILE-MIB contains objects to create and delete files of SNMP data for bulk-file transfer.

CISCO-BUS-MIB

The CISCO-BUS-MIB contains information to manage LANE broadcast and unknown servers.

CISCO-CAR-MIB

The CISCO-CAR-MIB contains information about the Committed Access Rate (CAR) assigned to router interfaces. The CAR is used to control the rate of traffic on an interface for packet switching purposes. The MIB provides information about how the router is to handle traffic that conforms and exceeds the CAR on the interface.

CISCO-CASA-FA-MIB

The CISCO-CASA-FA-MIB is used in conjunction with the CISCO-CASA-MIB to manage a Cisco Appliance Services Architecture (CASA) forwarding agent (FA).

The CASA protocol allows *appliances* (software entities such as web caches, firewalls, and load balancers) to control the behavior of *forwarding agents* (hardware devices such as switches and routers). The appliance tells forwarding agents how to handle packets based on their source and destination IP addresses and ports, and IP protocol fields (this information is called an *affinity*).

CISCO-CASA-MIB

The CISCO-CASA-MIB contains objects to manage a Cisco Appliance Services Architecture (CASA) entity (such as a manager or a forwarding agent). The MIB contains objects to configure CASA, and to retrieve status and operational information about the fixed affinity cache.

The CASA protocol allows *appliances* (software entities such as web caches, firewalls, and load balancers) to control the behavior of *forwarding agents* (hardware devices such as switches and routers). The appliance tells forwarding agents how to handle packets based on their source and destination IP addresses and ports, and IP protocol fields (this information is called an *affinity*).

CISCO-CDP-MIB

The CISCO-CDP-MIB contains objects to manage the Cisco Discovery Protocol (CDP) on the router.

CISCO-CIRCUIT-INTERFACE-MIB

The CISCO-CIRCUIT-INTERFACE-MIB contains objects to configure the circuit description for an interface. The circuit description identifies circuits on interfaces such as ATM and Frame Relay, and might be used, for example, to correlate performance statistics on the corresponding interfaces.

CISCO-CLASS-BASED-QOS-MIB

The CISCO-CLASS-BASED-QOS-MIB provides access to quality of service (QoS) configuration information and statistics for Cisco platforms that support the Modular Quality of Service command-line interface (Modular QoS CLI).

The MIB uses the following indexes to identify QoS features and distinguish among instances of those features:

- `cbQosPolicyIndex`—Identifies a service policy that is attached to a logical interface.
- `cbQosObjectsIndex`—Identifies each QoS feature on the Cisco 7200 router.
- `cbQosConfigIndex`—Identifies a type of QoS configuration. This index is shared by QoS objects that have identical configurations.

The indexes `cbQosPolicyIndex` and `cbQosObjectsIndex` are assigned by the system to uniquely identify each instance of a QoS feature. These indexes are never reused between router reboots, even if the QoS configuration changes.

QoS MIB information is stored in:

- Configuration objects—Includes all ClassMap, PolicyMap, Match Statements, and Feature Actions configuration parameters. Might have multiple identical instances. Multiple instances of the same QoS feature share a single configuration object, which is identified by `cbQosConfigIndex`.

- Statistics objects—Includes summary counts and rates by traffic class before and after any configured QoS policies are enforced. In addition, detailed feature-specific statistics are available for select PolicyMap features. Each has a unique runtime instance. Multiple instances of a QoS feature have a separate statistics object. Run-time instances of QoS objects are each assigned a unique identifier (cbQosObjectsIndex) to distinguish among multiple objects with matching configurations.

**Note**

The CISCO-CLASS-BASED-QOS-MIB support for the Cisco 7200 NPE-225, the Cisco NPE-400, the Cisco c7200 NPE-G1, and the Cisco 7201 NPE-G2, is the same.

CISCO-CONFIG-COPY-MIB

The CISCO-CONFIG-COPY-MIB contains objects to copy configuration files on the router. For example, the MIB enables the SNMP agent to:

- Copy configuration files to and from the network
- Copy the running configuration to the startup configuration
- Copy the startup or running configuration files to and from a local Cisco IOS file system

CISCO-CONFIG-MAN-MIB

The CISCO-CONFIG-MAN-MIB contains objects to track and save changes to the router configuration. The MIB represents a model of the configuration data that exists elsewhere in the router and in peripheral devices. Its main purpose is to report changes to the running configuration through the SNMP notification ciscoConfigManEvent.

CISCO-DLCSW-MIB

The CISCO-DLCSW-MIB contains objects to manage Frame-Relay access support (FRAS) sessions to the end-user station. The MIB applies only to downstream or end-user sessions. It does not apply to upstream or host-end sessions, which are managed through the FRAS-HOST-MIB.

CISCO-DLSW-EXT-MIB

The CISCO-DLSW-EXT-MIB is an extension to the CISCO-DLSW-MIB. It contains objects to manage Cisco specific data-link switching (DLSW) protocol enhancements. DLSw provides a way to transport Systems Network Architecture (SNA) and NetBIOS traffic over an IP network.

CISCO-DLSW-MIB

The CISCO-DLSW-MIB contains objects to manage data-link switches.

CISCO-DSPU-MIB

The CISCO-DSPU-MIB contains objects to configure and manage Cisco downstream physical unit (DSPU) objects.

CISCO-ENTITY-ALARM-MIB

The CISCO-ENTITY-ALARM-MIB enables the Cisco 7200 router to monitor alarms generated by system components, such as the chassis, slots, modules, power supplies, fans, and ports.

For a component's alarms to be monitored, the component must be defined by a row in the entPhysicalTable of the ENTITY-MIB in the “ENTITY-MIB (RFC 2737)” section on page 3-38 of this guide.



Note

The Cisco 7200 router temperature, power supplies, and fan monitoring are implemented in the CISCO-ENTITY-SENSOR-MIB instead of the CISCO-ENTITY-ALARM-MIB.

MIB Constraints

Table 3-8 lists the constraints that the Cisco 7200 router places on objects in the CISCO-ENTITY-ALARM-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-8 CISCO-ENTITY-ALARM-MIB Constraints

MIB Object	Notes
ceAlarmDescrTable	
<ul style="list-style-type: none"> ceAlarmDescrSeverity 	Read-only.
ceAlarmFilterProfileTable	
<ul style="list-style-type: none"> ceAlarmFilterIndex ceAlarmFilterStatus ceAlarmFilterAlias ceAlarmFilterAlarmsEnabled ceAlarmFilterNotifiesEnabled ceAlarmFilterSyslogEnabled 	The objects listed are not supported.

The MIB table, entPhysicalTable, identifies the physical system components in the router. The following list describes the table objects for the CISCO-ENTITY-ALARM-MIB:

- Physical entity—The component in the Cisco 7200 router that generates the alarm.
- Physical vendor type—The object specifies an identifier (typically an enterprise-specific OID) that uniquely identifies the vendor type of those physical entities that this alarm description applies to.
- Alarm severity—Each alarm type defined by a vendor type and employed by the system is assigned an associated severity:

- Critical—Indicates a severe, service-affecting condition has occurred and that immediate corrective action is imperative, regardless of the time of day or day of the week. For example, online insertion and removal of cards or loss of signal failure when a physical port link is down.
- Major—Used for hardware or software conditions. Indicates a serious disruption of service or the malfunctioning or failure of important hardware. Requires immediate attention and response of a technician to restore or maintain system stability. The urgency is less than in critical situations because of a lesser effect on service or system performance.
- Minor—Used for troubles that do not have a serious effect on service to customers or for alarms in hardware that are not essential to the operation of the system.
- Info—Notification about a condition that could lead to an impending problem or notification of an event that improves operation.

The syntax values are: critical(1), major(2), minor(3), info(4)

- Alarm description text—Specifies a readable message describing the alarm.
- Alarm type—Identifies the type of alarm that is generated. An arbitrary integer value that uniquely identifies an event relative to a physical entity in the Cisco 7200 router. Values 0 through 255.

Table 3-9 lists the alarm descriptions and severity levels for the Cisco 7200 router physical entity, the 6-port clear channel T3 (DS3) card.

Table 3-9 *entPhysicalTable Objects for Cisco 7200 Router 6-Port Clear Channel T3 Module Ports*

Physical Entity	entPhysicalVendorType	ceAlarmDescr Severity	ceAlarmDescrText	ceAlarmDescr AlarmType
Clear channel T3 interface	cevPortDs3	major	Transmitter is sending remote alarm	0
Clear channel T3 interface	cevPortDs3	major	Transmitter is sending AIS	1
Clear channel T3 interface	cevPortDs3	major	Receiver has loss of signal	2
Clear channel T3 interface	cevPortDs3	major	Receiver is receiving AIS	3
Clear channel T3 interface	cevPortDs3	major	Receiver has loss of frame	4
Clear channel T3 interface	cevPortDs3	major	Receiver has remote alarm	5
Clear channel T3 interface	cevPortDs3	major	Receiver has idle signal	6
Clear channel T3 interface	cevPortDs3	major	Other failure	7
Clear channel T3 interface	cevPortDs3	major	Physical port link down	8
Clear channel T3 interface	cevPortDs3	info	Physical port administrative state down	9

Table 3-10 lists the alarm descriptions and severity levels for the Cisco 7200 router physical entities, Gigabit Ethernet and Fast Ethernet port adapter cards.

Table 3-10 *entPhysicalTable Objects for Cisco 7200 Router Port Adapters*

Physical Entity	entPhysicalVendorType	ceAlarmDescr Severity	ceAlarmDescrText	ceAlarmDescr AlarmType
Gigabit Ethernet	cevPortGe	critical	Physical port link down	0
Gigabit Ethernet	cevPortGe	info	Physical port administrative state down	1
Fast Ethernet	cevPortFEIP	critical	Physical port link down	0
Fast Ethernet	cevPortFEIP	info	Physical port administrative state down	1

Table 3-11 lists the alarm descriptions and severity levels for the Cisco 7200 router physical entities, 1 and 2-Port OC-3/STM-1 and 1-Port OC-3c/STM-1 POS port adapters.

Table 3-11 *entPhysicalTable Objects for Cisco 7200 Router Packet over SONET Ports*

Physical Entity	entPhysicalVendor Type	ceAlarmDescr Severity	ceAlarmDescrText	ceAlarmDescr AlarmType
Packet over SONET	cevPortPOS	critical	Section loss of signal failure	0
Packet over SONET	cevPortPOS	critical	Section loss of frame failure	1
Packet over SONET	cevPortPOS	critical	Section out of frame alignment	2
Packet over SONET	cevPortPOS	critical	Section J0 mismatch	3
Packet over SONET	cevPortPOS	critical	Section bit interleaved parity	4
Packet over SONET	cevPortPOS	critical	Line alarm indication signal	5
Packet over SONET	cevPortPOS	critical	Line remote failure indication	6
Packet over SONET	cevPortPOS	critical	Line bit interleaved parity	7
Packet over SONET	cevPortPOS	critical	Line far end block errors	8
Packet over SONET	cevPortPOS	critical	Path alarm indication signal	9

Table 3-11 *entPhysicalTable Objects for Cisco 7200 Router Packet over SONET Ports (continued)*

Physical Entity	entPhysicalVendor Type	ceAlarmDescr Severity	ceAlarmDescrText	ceAlarmDescr AlarmType
Packet over SONET	cevPortPOS	critical	Path remote failure indication	10
Packet over SONET	cevPortPOS	critical	Path loss of pointer	11
Packet over SONET	cevPortPOS	critical	Path bit interleaved parity	12
Packet over SONET	cevPortPOS	critical	Path far end block errors	13
Packet over SONET	cevPortPOS	critical	Protection switch byte failure	14
Packet over SONET	cevPortPOS	critical	Path pointer justifications	15
Packet over SONET	cevPortPOS	critical	Path positive pointer stuff event	16
Packet over SONET	cevPortPOS	critical	Path negative pointer stuff event	17
Packet over SONET	cevPortPOS	critical	Path payload label mismatch	18
Packet over SONET	cevPortPOS	critical	Path payload unequipped	19
Packet over SONET	cevPortPOS	critical	Count of APS	20
Packet over SONET	cevPortPOS	critical	Receiver data out of lock failure	21
Packet over SONET	cevPortPOS	critical	Signal failure alarm	22
Packet over SONET	cevPortPOS	critical	Signal degrade alarm	23
Packet over SONET	cevPortPOS	critical	Threshold cross alarm-B1	24
Packet over SONET	cevPortPOS	critical	Threshold cross alarm-B2	25
Packet over SONET	cevPortPOS	critical	Threshold cross alarm-B3	26
Packet over SONET	cevPortPOS	critical	Port link down alarm	27
Packet over SONET	cevPortPOS	info	Port administrative down alarm	28

Table 3-12 lists the alarm descriptions and severity levels for the Cisco 7200 router physical entities, 1-Port ATM OC-3/STM-1 port adapter.

Table 3-12 *entPhysicalTable Objects for Cisco 7200 Router OC-3 ATM*

Physical Entity	entPhysicalVendorType	ceAlarmDescr Severity	ceAlarmDescrText	ceAlarmDescr AlarmType
ATM over SONET	cevPortOc3	critical	Loss of signal failure	0
ATM over SONET	cevPortOc3	critical	Loss of frame	1
ATM over SONET	cevPortOc3	critical	Out of frame failure	2
ATM over SONET	cevPortOc3	critical	Loss of path	3
ATM over SONET	cevPortOc3	critical	Line far end receiver data failure	4
ATM over SONET	cevPortOc3	critical	Line alarm indication signal	5
ATM over SONET	cevPortOc3	critical	Path alarm indication signal	6
ATM over SONET	cevPortOc3	critical	Path far end receiver data failure	7
ATM over SONET	cevPortOc3	critical	Loss of cell delineation	8
ATM over SONET	cevPortOc3	critical	Path bit interleaved parity	9
ATM over SONET	cevPortOc3	critical	Path payload label mismatch	12
ATM over SONET	cevPortOc3	critical	Section bit interleaved parity	10
ATM over SONET	cevPortOc3	critical	Line bit interleaved parity	11
ATM over SONET	cevPortOc3	critical	Path payload unequipped	13
ATM over SONET	cevPortOc3	critical	Physical port link down	14
ATM over SONET	cevPortOc3	Info	Physical port administrative state down	15

Table 3-13 lists the alarm descriptions and severity levels for the Cisco 7200 router physical entities, 1-port enhanced ATM T3, and E3 port adapters.

Table 3-13 *entPhysicalTable Objects for Cisco 7200 Router ATM over T3 and E3 Port Adapters*

Physical Entity	entPhysicalVendorType	ceAlarmDescr Severity	ceAlarmDescrText	ceAlarmDescr AlarmType
ATM over T3	cevPortDs3Atm	critical	Loss of signal failure	0
ATM over T3	cevPortDs3Atm	critical	Out of frame failure	1
ATM over T3	cevPortDs3Atm	critical	Pay load mismatch	2
ATM over T3	cevPortDs3Atm	critical	Idle	3
ATM over T3	cevPortDs3Atm	critical	Loss of cell delineation	4
ATM over T3	cevPortDs3Atm	critical	Far end receiver data failure	5
ATM over T3	cevPortDs3Atm	critical	Alarm indication signal	6
ATM over T3	cevPortDs3Atm	critical	Physical port link down	7
ATM over T3	cevPortDs3Atm	info	Physical port administrative state down	8
ATM over E3	cevPortE3Atm	major	Loss of signal failure	0
ATM over E3	cevPortE3Atm	major	Out of frame failure	1
ATM over E3	cevPortE3Atm	major	Pay load mismatch	2
ATM over E3	cevPortE3Atm	major	Idle	3
ATM over E3	cevPortE3Atm	major	Loss of cell delineation	4
ATM over E3	cevPortE3Atm	major	Far end receiver data failure	5
ATM over E3	cevPortE3Atm	major	Alarm indication signal	6
ATM over E3	cevPortE3Atm	major	Physical port link down	7
ATM over E3	cevPortE3Atm	info	Physical port administrative state down	8

CISCO-ENTITY-ASSET-MIB

The CISCO-ENTITY-ASSET-MIB provides asset tracking information for the physical components in the ENTITY-MIB (RFC 2737) entPhysicalTable. This MIB is applicable to all line and processor cards.

The ceAssetTable contains an entry (ceAssetEntry) for each physical component on the router. Each entry provides information about the component, such as its orderable part number, serial number, hardware revision, manufacturing assembly number, and manufacturing revision.

Program most physical components with a standard Cisco generic ID PROM value that specifies asset information for the component. If possible, the MIB accesses the component's ID PROM information.

The CISCO-ENTITY-ASSET-MIB contains two object groups:

- ceAssetGroupRev1—The collection of objects which are used to describe and monitor asset-related extension data of ENTITY-MIB (RFC 2737) entPhysicalTable items.
- ceAssetEntityGroup—The ceAssetEntityGroup duplicates the objects in entPhysicalTable of the ENTITY-MIB (RFC 2737).

MIB Constraints

Table 3-14 lists the constraints that the Cisco 7200 router places on objects in the CISCO-ENTITY-ASSET-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-14 CISCO-ENTITY-ASSET-MIB Object Constraints

MIB Object	Notes
ceAssetTable	
• ceAssetAlias	Read-only.
• ceAssetTag	Read-only.
• ceAssetCLEI	Not supported.

The following objects are read-only objects in the MIB definition. You see values if your platform has any related information on the object. Otherwise, the object is a zero length string, such as ceAssetFirmwareID, ceAssetFirmwareRevision, ceAssetSoftwareI, and ceAssetSoftwareRevision.

CISCO-ENTITY-EXT-MIB

The CISCO-ENTITY-EXT-MIB contains extensions for the processor modules listed in the ENTITY-MIB entPhysicalTable. A processor module is any physical entity that has a CPU, RAM, and NVRAM, and can load a boot image and save a configuration. The extensions in this MIB provide information such as RAM and NVRAM sizes, configuration register settings, and bootload image names for each processor module.

The CISCO-ENTITY-EXT-MIB contains two tables:

- The ceExtPhysicalProcessorTable table contains information related to processor RAM and NVRAM sizes (total and used).
- The ceExtConfigRegTable table contains information related to configuration register settings and boot images.

Table 3-15 lists the constraints that the Cisco 7200 router places on objects in the CISCO-ENTITY-EXT-MIB. For detailed definitions of MIB objects, see the MIB. Any objects not listed in this table are implemented as defined in this MIB.

Table 3-15 CISCO-ENTITY-EXT-MIB Object Constraints

MIB Object	Notes
ceExtConfigRegTable	
ceExtConfigRegNext	Read only.
ceExtSysBootImageList	Read only.



Note

The CISCO-ENTITY-EXT-MIB is only supported for the physical entities representing active processors.

CISCO-ENTITY-FRU-CONTROL-MIB

The CISCO-ENTITY-FRU-CONTROL-MIB contains objects to configure and monitor the status of field replaceable units (FRUs) on the Cisco 7200 router. An FRU is a hardware component that can be replaced on site.

Table 3-16 lists the constraints that the router places on objects in the CISCO-ENTITY-FRU-CONTROL-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-16 CISCO-ENTITY-FRU-CONTROL-MIB Constraints

MIB Object	Notes
cefcModuleTable	
<ul style="list-style-type: none"> cefcModuleAdminStatus 	Supported values: <ul style="list-style-type: none"> Enable(1) Reset(3) <p>Note The cefcModuleAdminStatus object cannot be set to reset(3) for processor modules.</p>
<ul style="list-style-type: none"> cefcModuleOperStatus 	Supported values: <ul style="list-style-type: none"> Unknown(1)—Read-only. Ok(2)—Read-only. Failed(7)—Read-only.
<ul style="list-style-type: none"> cefcModuleResetReason 	Supported values: <ul style="list-style-type: none"> Unknown(1)—Read-only. PowerUp(2)—Read-only. ManualReset(5)—Read-only.
cefcFRUPowerSupplyGroupTable	Not supported.
cefcFRUPowerStatusTable	Not supported.

Table 3-16 CISCO-ENTITY-FRU-CONTROL-MIB Constraints (continued)

MIB Object	Notes
<ul style="list-style-type: none"> cefcMaxDefaultInLinePower 	Not supported.
1 The entPhysicalEntry (which has module(9) as entPhysicalClass in the entPhysicalTable) has a corresponding entry in the cefcModuleTable.	
2 The cefcPowerStatusChange notification is not supported and the cefcModuleStatusChange notification can be supported for a redundant power supply.	

CISCO-ENTITY-SENSOR-MIB

The CISCO-ENTITY-SENSOR-MIB contains objects that monitor the values of sensors in the ENTITY-MIB (RFC 2037) entPhysicalTable. The CISCO-ENTITY-SENSOR-MIB:

- Is a Cisco private MIB to support a monitoring function of sensor devices.
- Discovers the sensor devices in the system and provides the ability to monitor the status of the system.
- Provides the threshold values and notifications for each sensor.

The sensor entities shown in this MIB are the physical entities whose entity class are defined to sensor(8) in the entPhysicalTable.

CISCO-ENTITY-VENDORTYPE-OID-MIB

The CISCO-ENTITY-VENDORTYPE-OID-MIB defines the object identifiers (OIDs) assigned to various Cisco 7200 router components. The OIDs in this MIB are used by the entPhysicalTable of the ENTITY-MIB as values for the entPhysicalVendorType field in entPhysicalTable. Each OID uniquely identifies a type of physical entity, such as a chassis or port adapters.

MIB Constraints

Table 3-17 lists the objects and OIDs in the CISCO-ENTITY-VENDORTYPE-OID-MIB that describe router entities. For detailed definitions of MIB objects, see the MIB.

Table 3-17 CISCO-ENTITY-VENDORTYPE-OID-MIB Objects and Constraints

MIB Object (OID Assignment)	Notes (Part Number)
cevContainer	
<ul style="list-style-type: none"> cevContainerSlot (1.3.6.1.4.1.9.12.3.1.5.1) 	Chassis slot
cevModule	
<ul style="list-style-type: none"> cevModuleC7xxxType (1.3.6.1.4.1.9.12.3.1.9.7) 	
cevPortAdapters	
Cisco 7200 PCI Port Adapter Carrier cards (7200-PA-CC)	

Table 3-17 CISCO-ENTITY-VENDORTYPE-OID-MIB Objects and Constraints (continued)

MIB Object (OID Assignment)	Notes (Part Number)
<ul style="list-style-type: none"> cevPaAtmdxE3 (1.3.6.1.4.1.9.12.3.1.9.4.38) 	1-port enhanced ATM E3 port adapter (PA-A3-E3)
<ul style="list-style-type: none"> cevPaAtmdxDs3 (1.3.6.1.4.1.9.12.3.1.9.4.37) 	1-port enhanced ATM T3 port adapter (PA-A3-T3)
cevModuleVipPortAdapters	Support for shared port adapters 1.3.6.1.4.1.9.12.3.1.9.4
<ul style="list-style-type: none"> cevModuleC7xxxType (1.3.6.1.4.1.9.12.3.1.9.7) 	ATM WAN OC3MM PA
<ul style="list-style-type: none"> cevPa8e (1.3.6.1.4.1.9.12.3.1.9.4.2) 	8-Port Ethernet 10BaseT Port Adapter
<ul style="list-style-type: none"> cevPa4t (1.3.6.1.4.1.9.12.3.1.9.4.5) 	4-Port Serial Port Adapter, Enhanced
<ul style="list-style-type: none"> cevPaA8tV35 (1.3.6.1.4.1.9.12.3.1.9.4.12) 	8 Port Serial, V.35 Port Adapter
<ul style="list-style-type: none"> cevPaA8tRs232 (1.3.6.1.4.1.9.12.3.1.9.4.43) 	8-Port Serial, 232 Port Adapter
<ul style="list-style-type: none"> cevPaA8tX21 (1.3.6.1.4.1.9.12.3.1.9.4.42) 	8-Port Serial, X.21 Port Adapter
<ul style="list-style-type: none"> cevPaAh1t (1.3.6.1.4.1.9.12.3.1.9.4.9) 	PA-H PORT ADAPTER:2-PORT HSSI (High Speed Serial Interface port adapter)
<ul style="list-style-type: none"> cevPaAh2t (1.3.6.1.4.1.9.12.3.1.9.4.10) 	PA-2H PORT ADAPTER:2-PORT HSSI
<ul style="list-style-type: none"> cevPa2feTx (1.3.6.1.4.1.9.12.3.1.9.4.56) 	2-Port Fast Ethernet Port Adapter
<ul style="list-style-type: none"> cevPa2feFx (1.3.6.1.4.1.9.12.3.1.9.4.57) 	2-Port Fast Ethernet Port Adapter
<ul style="list-style-type: none"> cevPaGe (1.3.6.1.4.1.9.12.3.1.9.4.59) 	Gigabit Ethernet port adapter
<ul style="list-style-type: none"> cevPa2t3 (1.3.6.1.4.1.9.12.3.1.9.4.49) 	2 Port T3 Serial Port Adapter Enhanced
<ul style="list-style-type: none"> cevPa2e3 (1.3.6.1.4.1.9.12.3.1.9.4.47) 	1 Port T3 Serial Port Adapter Enhanced
<ul style="list-style-type: none"> cevPaAtmdxMmOc3 (1.3.6.1.4.1.9.12.3.1.9.4.41) 	1-Port ATM Enhanced OC3c/STM1 Multimode Port Adapter
<ul style="list-style-type: none"> cevPaAtmdxSmiOc3 (1.3.6.1.4.1.9.12.3.1.9.4.40) 	1-Port ATM Enhanced OC3c/STM1 Singlemode (IR) Port Adapter
<ul style="list-style-type: none"> cevPaAtmdxSmlOc3 (1.3.6.1.4.1.9.12.3.1.9.4.39) 	1-Port ATM Enhanced OC3c/STM1 Singlemode (LR) Port Adapter
<ul style="list-style-type: none"> cevPaMc2t3ec (1.3.6.1.4.1.9.12.3.1.9.4.113) 	Enhanced PA-MC-2T3e Port Adapter

Table 3-17 CISCO-ENTITY-VENDORTYPE-OID-MIB Objects and Constraints (continued)

MIB Object (OID Assignment)	Notes (Part Number)
cevPort	
<ul style="list-style-type: none"> cevPortFEIP (1.3.6.1.4.1.9.12.3.1.10.16) 	NSE Fast Ethernet port
<ul style="list-style-type: none"> cevPortGE (1.3.6.1.4.1.9.12.3.1.10.109) 	NSE GigabitEthernet port
<ul style="list-style-type: none"> cevPortOc3 (1.3.6.1.4.1.9.12.3.1.10.80) 	OC-3 ATM port
<ul style="list-style-type: none"> cevPortT3 (1.3.6.1.4.1.9.12.3.1.10.20) 	Clear Channel T3 port
<ul style="list-style-type: none"> cevPortPOS (1.3.6.1.4.1.9.12.3.1.10.52) 	Packet over SONET port
<ul style="list-style-type: none"> cevPortE3Atm (1.3.6.1.4.1.9.12.3.1.10.176) 	PA-A3-E3 port
<ul style="list-style-type: none"> cevPortDs3ATM (1.3.6.1.4.1.9.12.3.1.10.177) 	PA-A3-T3 port
<ul style="list-style-type: none"> cevPortFEIP (1.3.6.1.4.1.9.12.3.1.10.16) 	PA-2FE-TX port
cevModuleSFPTtype	
Gigabit Ethernet SFP is a 1000-Mbps optical interface with LC-type duplex connection	
<ul style="list-style-type: none"> cevSFP1000BaseSx 1.3.6.1.4.1.9.12.3.1.9.51.6 	GLC-SX-MM, short wavelength
<ul style="list-style-type: none"> cevSFP1000BaseLx 1.3.6.1.4.1.9.12.3.1.9.51.7 	GLC-LH-SM, long wavelength, long haul
<ul style="list-style-type: none"> cevSFP1000BaseZx 1.3.6.1.4.1.9.12.3.1.9.51.9 	GLC-ZX-SM, extended distance wavelength
cevMGBIC	
Gigabit Ethernet GBIC is a 1000-Mbps optical interface with an SC-type duplex connection	
<ul style="list-style-type: none"> cevMGBIC1000BaseSX (1.3.6.1.4.1.9.12.3.1.9.16.2) 	GBIC-SX or WS-G5484, short wavelength
<ul style="list-style-type: none"> cevMGBIC1000BaseSX (1.3.6.1.4.1.9.12.3.1.9.16.2) 	GBIC-LX/LH or WS-G5486, long wavelength, long haul
<ul style="list-style-type: none"> cevMGBIC1000BaseSX (1.3.6.1.4.1.9.12.3.1.9.16.2) 	GBIC-ZX or WS-G5487, extended distance wavelength

CISCO-ENVMON-MIB

The CISCO-ENVMON-MIB contains information about the status of environmental sensors (for voltage, temperature, and power supplies). It also contains MIB objects to enable and disable notifications for changes to the status of these sensors.

CISCO-FLASH-MIB

The CISCO-FLASH-MIB contains objects to manage flash cards and flash-card operations.

CISCO-FRAME-RELAY-MIB

The CISCO-FRAME-RELAY-MIB contains Frame Relay information that is specific to Cisco products or that is missing from RFC 1315.

CISCO-FRAS-HOST-MIB

The CISCO-FRAS-HOST-MIB contains objects specific to upstream or host-end sessions.

CISCO-FTP-CLIENT-MIB

The CISCO-FTP-CLIENT-MIB contains objects to invoke File Transfer Protocol (FTP) operations for network management.

CISCO-HSRP-EXT-MIB

The CISCO-HSRP-EXT-MIB provides an extension to the CISCO-HSRP-MIB. It contains objects to perform functions such as assigning secondary HSRP IP addresses, monitoring the operational status of interfaces, and modifying an HSRP group's priority.

Although this MIB is included in the Cisco IOS software image, the MIB is currently not supported for broadband configurations.

CISCO-HSRP-MIB

The CISCO-HSRP-MIB contains objects to configure and manage the Cisco Hot Standby Router Protocol (HSRP), which is defined in RFC 2281. The following list defines HSRP terms:

- HSRP is a protocol used among a group of routers for the purpose of selecting an active router and a standby router.
- Active router is the router of choice for routing packets.
- Standby router takes over the routing duties when an active router fails, or when preset conditions have been met.
- HSRP group or a standby group is a set of routers which communicate using HSRP. An HSRP group has a group MAC address and a group Virtual IP address. These are the designated addresses. The active router assumes or inherits these group addresses.
- Hello messages indicate that a router is running and is capable of becoming the active or standby router.
- Helotime is the interval between successive HSRP hello messages from a specific router.

- Holdtime is the interval between the receipt of a hello message and the assumption that the sending router has failed.

MIB Constraints

Table 3-18 *CISCO-HSRP-MIB Constraints*

MIB Object	Notes
cHsrpGrpGroup	
• cHsrpConfigTimeout	These objects are read-only.
• cHsrpGrpAuth	
• cHsrpGrpPriority	
• cHsrpGrpPreempt	
• cHsrpGrpPreemptDelay	
• cHsrpGrpConfiguredHelloTime	
• cHsrpGrpConfiguredHoldTime	
• cHsrpGrpVirtualIpAddr	

CISCO-IETF-ATM2-PVCTRAP-MIB

The CISCO-IETF-ATM2-PVCTRAP-MIB supplements the ATM-MIB. It implements the virtual channel link (VCL) section of the IETF document “draft-ietf-atommib-atm2-11.txt,” Section 9 ATM Related Trap Support.

Although this MIB is included in the Cisco IOS software image, the MIB is currently not supported for broadband configurations.

CISCO-IETF-ATM2-PVCTRAP-MIB-EXTN

The CISCO-IETF-ATM2-PVCTRAP-MIB-EXTN contains information for monitoring ATM interfaces that are not defined in the ATM-MIB or the CISCO-IETF-ATM2-PVCTRAP-MIB.

Although this MIB is included in the Cisco IOS software image, the MIB is currently not supported for broadband configurations.

CISCO-IETF-IP-FORWARD-MIB

The CISCO-IETF-IP-FORWARD-MIB contains objects to manage multipath IP routes in a classless interdomain routing (CIDR) environment. This MIB is based on the IETF document draft-ietf-ipngwg-rfc2096-update-00.txt.

CISCO-IETF-IP-MIB

The CISCO-IETF-IP-MIB contains objects to manage the Internet Protocol (IP), but not to manage IP routes. The MIB also contains objects to manage the Internet Control Message Protocol (ICMP). It is based on the IETF document “draft-ietf-ipngwg-rfc2011-update-00.txt.”

MIB Constraints

Table 3-19 CISCO-IETF-IP-MIB Constraints

MIB Object	Notes
cIpv6InterfaceTable	
<ul style="list-style-type: none"> • cIpv6Forwarding • cIpv6DefaultHopLimit • cIpv6InterfaceIdentifier • cIpv6InterfaceIdentifierLength • cInetNetToMediaPhysAddress • cInetNetToMediaType 	These objects are all read-only.

CISCO-IMAGE-MIB

The CISCO-IMAGE-MIB is the router image MIB which identifies the characteristics and capabilities of the Cisco IOS software image running on the router.

There are no constraints on this MIB.

CISCO-IP-STAT-MIB

The CISCO-IP-STAT-MIB contains objects to manage the collection and display of IP statistics, categorized by IP precedence and the Media Access Control (MAC) address associated with IP packets. To use the MIB to access additional IP statistics, you can execute the following commands from the CLI:

- **show interfaces mac-accounting**
- **show interfaces precedence**

CISCO-IPMROUTE-MIB

The CISCO-IPMROUTE-MIB contains objects to manage IP multicast routing on the router.

Constraint

The ciscoIpMRouteInLimit object is obsolete.

CISCO-ENHANCED-MEMORY-POOL-MIB

**Note**

The CISCO-ENHANCED-MEMORY-POOL-MIB is not supported in this release.

The CISCO-ENHANCED-MEMORY-POOL-MIB contains objects to monitor memory pools on all physical entities on a managed system. Memory utilization information is provided to users at three different intervals of time: 1 minute, 5 minutes, and 10 minutes. Memory pools can be categorized into two groups:

- Predefined pool types—Currently predefined as:
 - 1:processor memory
 - 2:i/o memory
 - 3:pci memory
 - 4:fast memory
 - 5:multibus memory
- Dynamic pool types—Have a pool type value greater than any of the predefined types listed above.

Only the processor pool is required to be supported by all devices. Support for other pool types is dependent on the device being managed. For detailed definitions of the CISCO-ENHANCED-MEMORY-POOL-MIB objects, see the MIB.

**Note**

CISCO-ENHANCED-MEMORY-POOL-MIB retrieves used and free information from sysdb namespace. If mempool type is not found, it returns zero length to the SNMP core agent.

**Note**

The OLD-CISCO-MEMORY-MIB contains objects that describe memory pools on devices running an earlier implementation of the Cisco IOS operating system. This MIB was replaced by the CISCO-MEMORY-POOL-MIB.

CISCO-LEC-DATA-VCC-MIB

The CISCO-LEC-DATA-VCC-MIB module is a Cisco extension to the ATM Forum's LANE Client MIB. This extension identifies those VCCs which are being used to carry packets sent on LANE Data Direct VCCs.

CISCO-LEC-EXT-MIB

The CISCO-LEC-EXT-MIB module is a Cisco extension to the ATM Forum's LANE client MIB.

CISCO-LECS-MIB

The CISCO-LECS-MIB contains objects that manage LANE configuration in Cisco devices.

CISCO-LES-MIB

The CISCO-LES-MIB contains objects that manage LANE service in Cisco devices.

CISCO-MEMORY-POOL-MIB

The CISCO-MEMORY-POOL-MIB contains objects to monitor memory pools on the router.

There are no constraints on this MIB.

CISCO-NBAR-PROTOCOL-DISCOVERY-MIB-MIB

The CISCO-NBAR-PROTOCOL-DISCOVERY-MIB provides SNMP support for Network-Based Application Recognition (NBAR), including enabling and disabling protocol discovery on a per-interface basis and configuring the traps that are generated when certain events occur. You can also display the current NBAR configuration and run-time statistics.

**Note**

The MODULE-IDENTITY for the CISCO-NBAR-PROTOCOL-DISCOVERY-MIB is `ciscoNbarProtocolDiscoveryMIB`, and its top-level OID is 1.3.6.1.4.1.9.9.244 (`iso.org.dod.internet.private.enterprises.cisco.ciscoMgmt.ciscoNbarProtocolDiscoveryMIB`).

CISCO-NETFLOW-MIB

The CISCO-NETFLOW-MIB contains objects that remotely obtains and manages cache flow information, current NetFlow configuration, and statistics.

The Netflow MIB provides a simple and easy method to get NetFlow cache information, current NetFlow configuration and statistics. The MIB provides Netflow information in these areas:

- Cache information and configuration.
- Export information and configuration.
- Export Statistics.
- Protocol Statistics.
- Version 9 Export Template information.
- Top Flows information.

[Table 3-20](#) lists object groups supported in the CISCO-NETFLOW-MIB in order to to manage informative and configurable parameters.

Table 3-20 CISCO-NETFLOW-MIB Object Groups

Objects Group	Description
cnfCacheInfo	Provides common information for all active/inactive flows (i.e. entries, time out etc) per cache basis.
cnfExportInfo	Provides information about export like export version and export destinations(/Collectors).
cnfFeatureAcceleration	Provides information about NetFlow Feature Acceleration.
cnfExportStatistics	Provides export statistics.
cnfProtocolStatistics	Provides a summary of NetFlow cache statistics.
cnfExportTemplate	Provides Template based Version 9 flow export information and statistic.

SNMP is used to collect network information. SNMP permits retrieval of critical information from network elements such as routers, switches, and workstations. The CISCO-NETFLOW-MIB feature uses SNMP to configure NetFlow and to gather NetFlow statistics.

The CISCO-NETFLOW-MIB contains objects that allow NetFlow statistics and other NetFlow data for the managed devices on your system to be retrieved by SNMP. You can specify retrieval of NetFlow information from a managed device (for example, a router) either by entering commands on that managed device or by entering SNMP commands from the NMS workstation to configure the router through the MIB.

If the NetFlow information is configured from the NMS workstation, no access to the router is required and all configuration can be performed through SNMP. The CISCO-NETFLOW-MIB request for information is sent from an NMS workstation through SNMP to the router and is retrieved from the router. This information is stored or viewed, thus allowing NetFlow information to be easily accessed and transported across a multivendor programming environment.

The CISCO-NETFLOW-MIB feature defines managed objects that enable a network administrator to remotely monitor the following NetFlow information:

- Flow cache configuration information
- NetFlow export information
- General NetFlow statistics

CISCO-NTP-MIB

The CISCO-NTP-MIB contains objects to monitor a Network Time Protocol (NTP) server. NTP is used to synchronize timekeeping among a set of distributed time servers and clients. Primary time servers, which are synchronized to national time standards, are connected to widely accessible resources such as backbone gateways. These primary servers send timekeeping information to other time servers, and perform clock checking to eliminate timekeeping errors due to equipment or propagation failures.

CISCO-PAE-MIB

The CISCO-PAE-MIB contains objects to manage port access entities (PAEs) on the router, as defined by IEEE Std 802.1x. The MIB contains PAE information that is not included in the IEEE8021-PAE-MIB or that is specific to Cisco products.

CISCO-PIM-MIB

The CISCO-PIM-MIB defines Cisco specific objects and variables for managing Protocol Independent Multicast (PIM) on the router. These MIB definitions are an extension of those in RFC 2934, which is the IETF-PIM-MIB.

CISCO-PING-MIB

The CISCO-PING-MIB contains objects to manage ping requests on the router.

MIB Constraints

[Table 3-22](#) lists the constraints that the Cisco 7200 router places on objects in the CISCO-PING -MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-21 CISCO-PING-MIB Constraints

MIB Object	Notes
cPingTable	
<ul style="list-style-type: none"> ciscoPingVrfName 	Read-only.

CISCO-PPPOE-MIB

The CISCO-PPPOE-MIB contains objects to manage Point-to-Point Protocol over Ethernet (PPPoE) sessions. These objects represent PPPoE sessions at the system and virtual channel (VC) level.

MIB Constraints

[Table 3-22](#) lists the constraints that the Cisco 7200 router places on objects in the CISCO-PPPOE -MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-22 CISCO-PPPOE-MIB Constraints

MIB Object	Notes
cPppoeVcCfgTable	
<ul style="list-style-type: none"> cPppoeSystemMaxAllowedSessions cPppoeSystemThresholdSessions 	Read-only.

Table 3-22 CISCO-PPPOE-MIB Constraints (continued)

MIB Object	Notes
cPppoeVcCfgTable	
• cPppoeVcEnable	Read-only.
cPppoeVcSessionsTable	
• cPppoeVcMaxAllowedSessions	Read-only.
• cPppoeVcExceededSessionErrors	Read-only.

CISCO-PROCESS-MIB

The CISCO-PROCESS-MIB displays memory and CPU usage on the router, and describes active system processes. This MIB is used to retrieve statistics for both the first and second CPUs. For additional information, see [How to Collect CPU Utilization on Cisco IOS Devices Using SNMP, page A-26](#).

MIB Constraints

[Table 3-23](#) lists the constraints that the Cisco 7200 router places on objects in the CISCO-PROCESS-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-23 CISCO-PROCESS-MIB Constraints

MIB Object	Notes
cpmCPUTableTable	
• cpmCPUTotal5sec	Deprecated.
• cpmCPUTotal1min	Deprecated.
• cpmCPUTotal5min	Deprecated.

CISCO-PRODUCTS-MIB

The CISCO-PRODUCTS-MIB lists the object identifiers (OIDs) assigned to Cisco hardware platforms. The following product OID (sysObjectID) are assigned for the CISCO 7200 Series router:

- cisco7206 = 1.3.6.1.4.1.9.1.108 OID
- cisco7204 = 1.3.6.1.4.1.9.1.125 OID
- cisco7206VXR = 1.3.6.1.4.1.9.1.222 OID
- cisco7204VXR = 1.3.6.1.4.1.9.1.223 OID
- cisco7201 = 1.3.6.1.4.1.9.1.821 OID

CISCO-QLLC01-MIB

The CISCO-QLLC01-MIB contains objects to configure and monitor logical connections for the Qualified Logical Link Control (QLLC) protocol.

CISCO-QUEUE-MIB

The CISCO-QUEUE-MIB contains objects to manage interface queues, which can be used for FIFO, priority, custom, and fair queuing.

CISCO-RSRB-MIB

The CISCO-RSRB-MIB contains objects used to manage remote source-route bridging (RSRB) on the router. This MIB provides information about the attributes of the local-remote RSRB peer relationship.

CISCO-RTTMON-MIB

The CISCO-RTTMON-MIB contains objects to monitor network performance. The MIB provides information about the response times of network resources and applications. Each conceptual round-trip time (RTT) control row in the MIB represents a single probe, which is used to determine an entity's response time. The probe defines an RTT operation to perform (for example, an FTP or HTTP get request), and the results indicate whether the operation succeeded or failed, and the length of time it took to complete.



Note

An `rttMonCtrlOperConnectionLostOccurred` trap is generated when an RTT connection cannot be established to the destination router because the router responder application is not running. However, the trap is not generated if the physical connection to the router is lost.

MIB Constraints

Table 3-24 lists the constraints that the Cisco 7200 router places on objects in the CISCO-RTTMON-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-24 CISCO-RTTMON-MIB Constraints

MIB Object	Notes
rttMonCtrlAdminTable	
• <code>rttMonCtrlAdminOwner</code>	Read-only.
• <code>rttMonCtrlAdminTag</code>	Read-only.
• <code>rttMonCtrlAdminRttType</code>	Read-only.
• <code>rttMonCtrlAdminThreshold</code>	Read-only.
• <code>rttMonCtrlAdminFrequency</code>	Read-only.

Table 3-24 CISCO-RTTMON-MIB Constraints (continued)

MIB Object	Notes
• rttMonCtrlAdminTimeout	Read-only.
• rttMonCtrlAdminVerifyData	Read-only.
• rttMonCtrlAdminNvgen	Read-only.
rttMonEchoAdminTable	
• rttMonEchoAdminProtocol	Read-only.
• rttMonEchoAdminTargetAddress	Read-only.
• rttMonEchoAdminPktDataRequestSize	Read-only.
• rttMonEchoAdminPktDataResponseSize	Read-only.
• rttMonEchoAdminTargetPort	Read-only.
• rttMonEchoAdminSourceAddress	Read-only.
• rttMonEchoAdminSourcePort	Read-only.
• rttMonEchoAdminControlEnable	Read-only.
• rttMonEchoAdminTOS	Read-only.
• rttMonEchoAdminTargetAddressString	Read-only.
• rttMonEchoAdminNameServer	Read-only.
• rttMonEchoAdminOperation	Read-only.
• rttMonEchoAdminHTTPVersion	Read-only.
• rttMonEchoAdminURL	Read-only.
• rttMonEchoAdminCache	Read-only.
• rttMonEchoAdminInterval	Read-only.
• rttMonEchoAdminNumPackets	Read-only.
• rttMonEchoAdminProxy	Read-only.
• rttMonEchoAdminString1	Read-only.
• rttMonEchoAdminString2	Read-only.
• rttMonEchoAdminString3	Read-only.
• rttMonEchoAdminString4	Read-only.
• rttMonEchoAdminString5	Read-only.
• rttMonEchoAdminMode	Read-only.
• rttMonEchoAdminTOS	Read-only.
rttMonScheduleAdminTable	
• rttMonScheduleAdminRttLife	Read-only.
• rttMonScheduleAdminRttStartTime	Read-only.
• rttMonScheduleAdminConceptRowAgeout	Read-only.
rttMonStatisticsAdminTable	
• rttMonStatisticsAdminNumHourGroups	Read-only.
• rttMonStatisticsAdminNumPaths	Read-only.

Table 3-24 CISCO-RTTMON-MIB Constraints (continued)

MIB Object	Notes
• rttMonStatisticsAdminNumHops	Read-only.
• rttMonStatisticsAdminNumDistBuckets	Read-only.
• rttMonStatisticsAdminDistInterval	Read-only.
rttMonHistoryAdminTable	
• rttMonHistoryAdminNumLives	Read-only.
• rttMonHistoryAdminNumBuckets	Read-only.
• rttMonHistoryAdminNumSamples	Read-only.
• rttMonHistoryAdminFilter	Read-only.
rttMonCtrlOperTable	
• rttMonCtrlOperState	Read-only.

CISCO-SDLLC-MIB

The CISCO-SDLLC-MIB contains object to manage SDLC Logical Link Control (SDLLC). The MIB contains read-only configuration and operational information for the Cisco implementation of Synchronous Data Link Control (SDLC) to Logical Link Control, type 2 (LLC2) media translation.

CISCO-SMI-MIB

The CISCO-SMI-MIB defines the structure of management information for Cisco enterprise MIBs.

CISCO-SNAPSHOT-MIB

The CISCO-SNAPSHOT-MIB contains objects to manage snapshot routing, which helps improve the use of system resources for static routing and routing for dedicated serial lines.

CISCO-SSG-MIB

The CISCO-SSG-MIB contains objects to manage the Service Selection Gateway (SSG) product on the router. SSG enables service providers to offer subscribers access to the Internet, corporate networks, and value-added services through broadband access technology such as digital subscriber lines (DSL), cable modems, and wireless access.

SSG works in conjunction with the Cisco Service Selection Dashboard (SSD) or its successor product, the Cisco Subscriber Edge Services Manager (SESM), to:

- Authenticate the access rights of subscribers
- Provide subscribers with a selection of services available to them
- Connect subscribers to services

Subscribers can:

- Dynamically connect to and disconnect from services (which can be public or private)
- Concurrently connect to a number of different services

SSG communicates with the authentication, authorization, and accounting (AAA) management network where RADIUS, Dynamic Host Configuration Protocol (DHCP), and Simple Network Management Protocol (SNMP) servers reside. SSG also communicates with the Internet service provider (ISP) network, which may connect to the Internet, corporate networks, and value-added services.

MIB Constraints

Table 3-25 lists the constraints that the Cisco 7200 router places on objects in the CISCO-SSG-MIB. For detailed definitions of MIB objects, see the MIB

Table 3-25 CISCO-SSG-MIB Constraints

MIB Object	Notes
ciscoSsgCfgGroup	
• ssgCfgLocalForwarding	Not supported.
• ssgCfgAutoDomainNat	Not supported.
• ssgCfgTransPassThrough	Not supported.
• ssgCfgMaxServicesPerUser	The router supports a maximum of 7 services per service group. Each user can only be subscribed to one service group.
• ssgCfgTcpRedirGrpForSMTP	Not supported.
• ssgCfgTcpRedirGrpForAdvCapt	Not supported.
ssgServiceTable	
• ssgServiceDNSPrimaryIpType	DNS redirect is not supported.
• ssgServiceDNSPrimary	DNS redirect is not supported.
• ssgServiceDNSSecondaryIpType	DNS redirect is not supported.
• ssgServiceDNSSecondary	DNS redirect is not supported.

CISCO-STUN-MIB

The CISCO-STUN-MIB contains objects to configure and monitor serial tunneling (STUN) on the router. The MIB contains global STUN configuration and operational information, and objects to manage STUN groups, ports, and routes.

CISCO-SYSLOG-MIB

The CISCO-SYSLOG-MIB contains all system log messages generated by the Cisco IOS software. The MIB provides a way to access syslog messages through SNMP. All Cisco IOS syslog messages contain the message name and its severity, message text, the name of the entity generating the message, and an optional time stamp. The MIB also contains a history of syslog messages and counts related to syslog messages.

**Note**

You can configure the Cisco 7200 router to send syslog messages to a 'syslog' server.

MIB Constraints

The MIB does not keep track of messages generated from commands entered through the command line interface (CLI).

CISCO-TC-MIB

The CISCO-TC-MIB defines the textual conventions used in Cisco enterprise MIBs.

CISCO-TCP-MIB

The CISCO-TCP-MIB contains objects to manage the Transmission Control Protocol (TCP) on the router. This MIB is an extension to the IETF TCP MIB.

CISCO-VLAN-IFTABLE-RELATIONSHIP-MIB

The CISCO-VLAN-IFTABLE-RELATIONSHIP-MIB contains VLAN-ID and ifIndex information for each routed virtual LAN (VLAN) interface on the router. A routed VLAN interface is the router interface or subinterface to which you attach the IP address used by the router on the VLAN.

On the Cisco 7200 router, the MIB contains information about VLAN subinterfaces created on GigE WAN ports on the 4-port GigE WAN Optical Services Module (OSM-2+4GE-WAN+). The MIB maps each VLAN-ID to an ifIndex, which you can use to access the ipRouteTable to obtain the routing configuration for the routed VLAN interface.

CISCO-VPDN-MGMT-MIB

The CISCO-VPDN-MGMT-MIB provides operational information about the Virtual Private Dialup Network (VPDN) feature on the router. You can use the MIB to monitor VPDN tunnel information on the router, but you cannot use the MIB to configure VPDN.

VPDN enables the router to forward Point-to-Point Protocol (PPP) traffic between an Internet service provider (ISP) and a home gateway. The CISCO-VPDN-MGMT-MIB includes several tables that contain VPDN tunneling information:

- `cvpdnSystemTable`—Provides system-wide VPDN information.
- `cvpdnTunnelAttrTable`—Provides information about each active tunnel.
- `cvpdnSessionAttrTable`—Provides information about each active session within each tunnel.
- `cvpdnUserToFailHistInfoTable`—Provides information about the last failure that occurred for each tunnel user.
- `cvpdnTemplateTable`—Identifies each VPDN template and indicates the number of active sessions associated with the template. See Table 3-22 for information about template name restrictions and their effect on SNMP.

MIB Constraints

Table 3-26 lists the constraints that the Cisco 7200 router places on objects in the CISCO-VPDN-MGMT-MIB. The CISCO-VPDN-MGMT-MIB objects in Table 3-26 have been deprecated. Although currently supported, their use is being phased out and we recommend that you use the replacement object instead. For detailed definitions of MIB objects, see the MIB.

Table 3-26 CISCO-VPDN-MGMT- MIB Constraints

MIB Object	Notes
cvpdnTable	
• <code>cvpdnTunnelTotal</code>	Replaced by <code>cvpdnSystemTunnelTotal</code> .
• <code>cvpdnSessionTotal</code>	Replaced by <code>cvpdnSystemSessionTotal</code> .
• <code>cvpdnDeniedUsersTotal</code>	Replaced by <code>cvpdnSystemDeniedUsersTotal</code> .
cvpdnTunnelTable	Replaced by <code>cvpdnTunnelAttrTable</code> .
cvpdnTunnelSessionTable	Replaced by <code>cvpdnSessionAttrTable</code> .
cvpdnTemplateTable	SNMP limits the size of VPDN template names to 128 characters. If any template name in the <code>cvpdnTemplateTable</code> exceeds this length, you cannot use an SNMP <code>getmany</code> request to retrieve any table entries. Instead, you must use individual <code>getone</code> requests to retrieve each template name (<code>cvpdnTemplateName</code>) that does not exceed 128 characters.

CISCO-VPDN-MGMT-EXT-MIB

The Cisco VPDN management MIB extension is a supplement to CISCO-VPDN-MGMT-MIB with additional information for VPDN tunnels and sessions.

The MIB contains the following tables, which provide read-only information not found in the CISCO-VPDN-MGMT-MIB:

- `cvpdnTunnelExtTable`—Provides information about Layer 2 Tunnel Protocol (L2TP) tunnels, such as tunnel statistics and User Datagram Protocol (UDP) port numbers.
- `cvpdnSessionExtTable`—Provides information about L2TP sessions, as well as information about session packet counts, packet sequencing information, window size, and operating characteristics.

MIB Constraints

Table 3-27 lists the constraints that the Cisco 7200 router places on objects in the CISCO-VPDN-MGMT-EXT-MIB. For detailed definitions of MIB objects, see the MIB

Table 3-27 CISCO--VPDN-MGMT-EXT-MIB Constraints

MIB Object	Notes
cvpdnSessionExtTable	
• cvpdnSessionRemoteSendSequence	These objects are not implemented.
• cvpdnSessionRemoteRecvSequence	
• cvpdnSessionSentZLB	
• cvpdnSessionRecvZLB	
• cvpdnSessionSentRBits	
• cvpdnSessionRecvRBits	
• cvpdnSessionLocalWindowSize	
• cvpdnSessionRemoteWindowSize	
• cvpdnSessionCurrentWindowSize	
• cvpdnSessionMinimumWindowSize	
• cvpdnSessionATOTimeouts	
• cvpdnSessionOutGoingQueueSize	
• cvpdnSessionAdaptiveTimeOut	
• cvpdnSessionRoundTripTime	
• cvpdnSessionPktProcessingDelay	
• cvpdnSessionZLBTime	
All other MIB objects are read-only.	

DLSW-MIB

The DLSW-MIB (RFC 2024) contains objects to manage data-link switching (DLSw) on the router.

ENTITY-MIB (RFC 2737)

The ENTITY-MIB contains a table called, entPhysicalTable that identifies physical system components (logical entities) in the Cisco 7200 router and allows SNMP management of those entities. This MIB is applicable to chassis, processor cards, port adapters, fans, and power supplies.

The following are the five conformance groups contained in the Entity-MIB:

- entityPhysical group—Describes the physical entities managed by a single agent.
- entityLogical group—Describes the logical entities managed by a single agent.

- **entityMapping** group—Describes the associations between the physical entities, logical entities, interfaces, and non-interface ports managed by a single agent.
- **entityGeneral** group—Describes general system attributes shared by potentially all types of entities managed by a single agent.
- **entityNotifications** group—Contains status indication notifications.

The following two groups are added from RFC 2737:

- **entityPhysical2** group—This group augments the **entityPhysical** group.
- **entityLogical2** group—Describes the logical entities managed by a single agent, and replaces **entityLogical** group.

MIB Constraints

[Table 3-28](#) lists the constraints that the router places on objects in the ENTITY-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-28 ENTITY-MIB Constraints

MIB Object	Notes
<ul style="list-style-type: none"> • entPhysicalAlias • entPhysicalAssetID 	Zero length string.
entLogicalTable	
<ul style="list-style-type: none"> • entLogicalContextName 	Not supported.
entLPMappingTable	Not supported.

The following MIB entities are dependent on each user's configuration:

- **entPhysicalIndex**—Uniquely identifies each entity in the router. The index is also used to access information about the entity in other MIB tables.
- **entPhysicalContainedIn**—Indicates the **entPhysicalIndex** of a component's parent entity. The value of **entPhysicalIndex** for the physical entity which 'contains' this physical entity. A value of zero indicates this physical entity is not contained in any other physical entity.
- **entPhysicalParentRelPos**—An integer that shows the relative position of same-type entities that have the same **entPhysicalContainedIn** value (for example, slots).

The **entPhysicalTable** contains a single row for the Cisco 7200 chassis and a row for each entity in the chassis. A physical entity may contain other entities (for example, a fan-tray bay may contain a fan-tray module, which may contain one or more fans). The physical hierarchy of system components is determined at runtime, based on the actual configuration.

[Table 3-29](#) lists **entPhysicalTable** entries for the Cisco 7200 router.

Table 3-29 entPhysicalTable Entries for Cisco 7200 Chassis Components

entPhysicalDescr	entPhysicalVendorType	entPhysicalClass	entPhysicalName	Notes
C7200 chassis	cevChassis7204 or cevChassis7206	chassis(3)	7200 Chassis	
Chassis slot	cevContainerSlot	container(5)	slot1	Contained in the chassis

Table 3-29 *entPhysicalTable Entries for Cisco 7200 Chassis Components (continued)*

entPhysicalDescr	entPhysicalVendorType	entPhysicalClass	entPhysicalName	Notes
Chassis slot	cevContainerSlot	container(5)	slot 2	Contained in the chassis.
Chassis slot	cevContainerSlot	container(5)	slot 3	Contained in the chassis
Chassis slot	cevContainerSlot	container(5)	slot 4	Contained in the chassis
Chassis slot	cevContainerSlot	container(5)	slot 5	Contained in the chassis
Chassis slot	cevContainerSlot	container(5)	slot 6	Contained in the chassis
Power supply and fan module	cevPowerSupplyC7200 DC	powerSupply(6)	Entity description and PS slot number	Device supports AC and DC power supplies. The power supply and fan are in the PS container
Power supply and fan module	cevPowerSupplyC7200 AC	powerSupply(6)	Entity description and PS slot number	Device supports AC and DC power supplies. The power supply and fan are in the PS container

[Table 3-30](#) lists entPhysicalTable entries for the Cisco 7200 router network service engine (NSE) cards.

Table 3-30 *entPhysicalTable Entries for Cisco 7200 Network Service Engine Cards*

entPhysicalDescr	entPhysicalVendorType	entPhysicalClass	entPhysicalName	Notes
NSE 100 CPU card	cevCpuC7200Nse100	module(9)	Entity description and slot number	7200 NSE occupies 2 slots. It is contained in either slots 0 and 1 or slots 2 and 3.
NSE 100 daughter card	cevC7200Nse100Db	module(9)	Entity description and slot number	Contained in NSE-100 only.
7200-NPE-G100	cevCpuC7200Npeg100	module(9)	Entity description and slot number	7200 network route processor engine is contained in in I/O and CPU Slot 0.
Mistral EOBC	cevPortFEIP	port(10)	FastEthernet0	Only contained in the primary NSE-100.
Pinnacle GE	cevPortGE	port(10)	GigabitEthernet0/0 GigabitEthernet0/1 GigabitEthernet2/0 GigabitEthernet2/1	Contained in the primary and standby NSE-100. There are 2 GE ports per NSE-100.
BCM1250 Internal MAC	cevPortGE	port(10)	GigabitEthernet0 or GigabitEthernet1 or GigabitEthernet2	Only contained in the primary NPE-G100.
NSE DB temperature sensor	cevSensorC7200NseDb TempVoltage	sensor(8)	Entity description and slot number	Contained in the primary NSE DB.
NSE DB 1.65 V sensor	cevSensorC7200NseDb TempVoltage	sensor(8)	Entity description and slot number	Contained in the primary NSE DB.

Table 3-30 *entPhysicalTable Entries for Cisco 7200 Network Service Engine Cards (continued)*

entPhysicalDescr	entPhysicalVendorType	entPhysicalClass	entPhysicalName	Notes
NSE DB 1.8 V sensor	cevSensorC7200NseDb TempVoltage	sensor(8)	Entity description and slot number	Contained in the primary NSE DB.
Cisco 7200 Series Network Processing Engine NPE-G2	cevCpu7200Npeg2	module(9)	NPE-G2 0	Contained in I/O and CPU Slot 0. Supports one FastEthernet management port, three GigabitEthernet ports, and one USB port. The USB port is not supported in the Cisco 12.2(31)SB5 IOS release.

Table 3-31 lists entPhysicalTable entries for the Cisco 7200 Router OC-3-POS components.

Table 3-31 entPhysicalTable Entries for Cisco 7200 OC-3-POS Components

entPhysicalDescr	entPhysicalVendorType	entPhysicalClass	entPhysicalName	Notes
2-port POS OC-3 multimode	cevC72002Oc3PosMm	module(9)	Entity description and slot number	2-port OC-3c/STM-1 POS card
2-port POS OC-3 SM Intermediate Range	cevC72002Oc3PosSmIr	module(9)	Entity description and slot number	2-port OC-3c/STM-1 POS card
2-port POS OC-3 SM Long Range	cevC72002Oc3PosSmLr	module(9)	Entity description and slot number	2-port OC-3c/STM-1 POS card
4-port POS OC-3 multimode	cevC72004Oc3PosMm	module(9)	Entity description and slot number	4-port OC-3c/STM-1 POS card
4-port POS OC-3 SM Intermediate Range	cevC72004Oc3PosSmIr	module(9)	Entity description and slot number	4-port OC-3c/STM-1 POS line car
4-port POS OC-3 SM Long Range	cevC72004Oc3PosSmLr	module(9)	Entity description and slot number	4-port OC-3c/STM-1 POS line car
pos_oc3 Temperature Sensor	cevSensorModuleDevice Temp	sensor(8)	Entity description and slot number	Contained in the OC-3 POS card
pos_oc3 1.5 V Sensor	cevSensorModuleDevice Voltage	sensor(8)	Entity description and slot number	Contained in the OC-3 POS card
pos_oc3 1.8 V Sensor	cevSensorModuleDevice Voltage	sensor(8)	Entity description and slot number	Contained in the OC-3 POS card
pos_oc3 2.5 V Sensor	cevSensorModuleDevice Voltage	sensor(8)	Entity description and slot number	Contained in the OC-3 POS card
pos_oc3 3.3 V Sensor	cevSensorModuleDevice Voltage	sensor(8)	Entity description and slot number	Contained in the OC-3 POS card
pos_oc3 12 V Sensor	cevSensorModuleDevice Voltage	sensor(8)	Entity description and slot number	Contained in the OC-3 POS card

Table 3-32 lists entPhysicalTable Entries for Cisco 7200 Chassis Components.

Table 3-32 entPhysicalTable Entries for Cisco 7201 Chassis Components

entPhysicalDescr Cisco 7201, 1-slot chassis	entPhysicalVendorType cevChassis7201	entPhysicalClass chassis(3)	entPhysicalName Chassis	Notes
entPhysicalDescr PA Slot Container	entPhysicalVendorType cevContainerSlot	entPhysicalClass container(5)	entPhysicalName PA Slot 1	Contained in the chassis.
entPhysicalDescr Power Supply Container	entPhysicalVendorType cevContainerSlot	entPhysicalClass container(5)	entPhysicalName PEM 0 or 1	Two power supply bays contained in the chassis.
entPhysicalDescr Cisco 7201 AC Power Supply :	entPhysicalVendorType cevPowerSupplyC7201 AC	entPhysicalClass powerSupply	entPhysicalName Power Supply 1 or 2	The Cisco 7201 supports AC and DC power supplies, contained in the power supply bay.
entPhysicalDescr Cisco 7201 Network Processing Engine	entPhysicalVendorType cevCpu7201Npeg2	entPhysicalClass module(9)	entPhysicalName c7201	Contained in the chassis. Supports one FastEthernet management port, four GigabitEthernet ports, and one USB port. The USB port is not supported in the Cisco 12.2(31)SB release.

ENTITY-MIB UDI Support

The ENTITY-MIB supports the Cisco compliance effort for a Cisco unique device identifier (UDI) standard which is stored in IDPROM.

The Cisco UDI provides a unique identity for every Cisco product. The unique device identifier is comprised of an orderable product identifier (PID), the version identifier (VID), and the hardware Serial Number (SN). The UDI is stored in IDPROM. The PID, VID, and SN must be stored in the entPhysicalTable:

- PID shall be stored in the entPhysicalModelName object
- VID shall be stored in the entPhysicalHardwareRev object
- SN shall be stored in the entPhysicalSerialNum object



Note

The Version ID returns NULL for those old or existing cards whose IDPROMs do not have the Version ID field. Therefore, corresponding entPhysicalHardwareRev returns NULL for cards that do not have the Version ID field in IDPROM.

Each product that is capable of MIB support is required to populate ENTITY-MIB v2 or later with PID, VID, and SN. This compliance is also a requirement of the Consistent Network Element Manageability initiative. If the product uses both ENTITY-MIB and CISCO-ENTITY-ASSET-MIB, then the data in the following fields should be identical.

ENTITY-MIB v2 (RFC-2737) fields to be populated are:

- Entity-MIB.entPhysicalName (Product Name)
- Entity-MIB.entPhysicalDescr (Product Description)
- Entity-MIB.entPhysicalModelName (PID)
- Entity-MIB.entPhysicalHardwareRev (VID)
- Entity-MIB.entPhysicalSerialNumber (SN)

ETHERLIKE-MIB

The ETHERLIKE-MIB (RFC 2665) contains objects to manage Ethernet-like interfaces on the Cisco 7200 router.

MIB Constraints

Table 3-33 lists the constraints that the Cisco 7200 router places on objects in the ETHERLIKE-MIB. Any objects not listed in this table are implemented as defined in the MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-33 ETHERLIKE-MIB Constraints

MIB Table/Object	Notes
dot3CollTable	Not implemented

Table 3-33 ETHERLIKE-MIB Constraints (continued)

MIB Table/Object	Notes
dot3ControlTable	Not implemented
dot3PauseTable	Not implemented

Table 3-34 shows usage of ifTable for Ethernet-like layer.

Table 3-34 ETHERLIKE-MIB ifTable Usage

MIB ifTable Object	Use for GigaEthernet Layer
ifDescr	GE-WAN<slot>/<port>
ifType	EthernetCsmacd(6)
ifSpeed	1000000000
ifPhysAddress	MAC Address
ifName	GE<slot>/<port>
ifLinkUpDownTrapEnable	enabled(1)
ifHighSpeed	1000
ifConnectorPresent	true(1)

EVENT-MIB

The EVENT-MIB contains objects to define event triggers and actions for network management purposes.

MIB Constraint

Table 3-35 lists the constraints that the Cisco 7200 router places on objects in the EVENT-MIB. Any objects not listed in this table are implemented as defined in the MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-35 EVENT-MIB Constraints

MIB Table/Object	Notes
mteTriggerTable	
<ul style="list-style-type: none"> mteTriggerFrequency 	Read-only.

EXPRESSION-MIB

The EXPRESSION-MIB contains objects to define expressions of MIB objects for network management purposes.

MIB Constraint

Table 3-36 lists the constraints that the Cisco 7200 router places on objects in the EXPRESSION-MIB. Any objects not listed in this table are implemented as defined in the MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-36 EXPRESSION-MIB Constraints

MIB Table/Object	Notes
expObjectTable	
<ul style="list-style-type: none"> expObjectConditional 	Read-only.

HC-RMON-MIB

The MIB module for managing remote monitoring device implementations. This MIB module augments the original RMON MIB as specified in RFC 1757 and RFC 1513 and RMON2 MIB as specified in RFC 2021.

IEEE8021-PAE-MIB

The Port Access Entity module for managing IEEE 802.1X.

IEEE8023-LAG-MIB

The IEEE 8023-LAG-MIB is the Link Aggregation module for managing IEEE Standard 802.3ad.

IF-MIB

The IF-MIB (RFC 2233) describes the attributes of physical and logical interfaces. The router supports the ifGeneralGroup of MIB objects for all layers (ifIndex, ifDescr, ifType, ifSpeed, ifPhysAddress, ifAdminStatus, ifOperStatus, ifLastChange, ifName, ifLinkUpDownTrapEnable, ifHighSpeed, and ifConnectorPresent).

MIB Constraints

Table 3-37 lists the constraints that the Cisco 7200 router places on objects in the IF-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-37 IF-MIB Constraints

MIB Object	Notes
ifTable	
<ul style="list-style-type: none"> ifAdminStatus 	Can not be written in case of atm/aal5 sublayers on an ATM end system, LEC subinterfaces, aal5 sublayer of an ATM switch CPU interface, ATM 2000 physical interface and lex-based interfaces used for accounting
<ul style="list-style-type: none"> ifOperStatus 	Unable to detect states notPresent(6) and lowerLayerDown(7).
ifTestTable	Not supported.
ifXTable	
<ul style="list-style-type: none"> ifPromiscuousMode 	Read-only.
ifStackTable	
<ul style="list-style-type: none"> ifStackStatus 	For creating and removing table entries, the only supported values are createAndGo(4) and destroy(6).
ifRcvAddressTable	
<ul style="list-style-type: none"> ifRcvAddressStatus 	For creating and removing table entries, the only supported values are createAndGo(4) and destroy(6).
<ul style="list-style-type: none"> ifRcvAddressType 	The only supported value is other(1).

Table 3-38 contains RFC-1407 MIB constraints..

Table 3-38 RFC1407-MIB Constraints

MIB Object	Notes
dsx3ConfigTable	
<ul style="list-style-type: none"> dsx1LineStatusChangeTrapEnable 	Supported values: enabled(1) and disabled(2).
<ul style="list-style-type: none"> dsx3LineType 	Supported values is E3 supports e3other(6) and e3Plcp(8)

Table 3-38 RFC1407-MIB Constraints (continued)

MIB Object	Notes
<ul style="list-style-type: none"> dsx3LineCoding 	Read-only. T3 supports dsx3B3ZS(2) value only. E3 supports e3HDB3(3) value only.
<ul style="list-style-type: none"> dsx3SendCode 	Read-only. Supports dsx3SendNoCode value only.
<ul style="list-style-type: none"> dsx3CircuitIdentifier 	Read-only.
<ul style="list-style-type: none"> dsx3LoopbackConfig 	Read-only.
dsx3FarEndConfigTable	Not supported.
dsx3FarEndCurrentTable	Not supported.
dsx3FarEndIntervalTable	Not supported.
dsx3FarEndTotalTable	Not supported.

1 All T3/ATM cards only support RO on all variables. See IF-MIB section for use of ifTable.

2 The RFC1407-MIB use supports the following port adapter card types: PA-MC-T3, PA-MC-E3, PA-A3-T3, PA-A3-E3.

IGMP-MIB

The IGMP-MIB contains objects to manage the Internet Group Management Protocol (IGMP) on the router.

INT-SERV-GUARANTEED-MIB

The INT-SERV-GUARANTEED-MIB describes the guaranteed service of the Integrated Services Protocol (ISP).

INT-SERV-MIB

The INT-SERV-MIB describes the Integrated Services Protocol (ISP).

IPMROUTE-MIB

The IPMROUTE-MIB contains objects to manage IP multicast routing on the router, independent of the actual multicast routing protocol in use.

LAN-EMULATION-CLIENT-MIB

This module defines a portion of the management information base (MIB) for managing ATM LAN Emulation Client nodes. It is meant to be used in connection with the AToM MIB and MIB-II / RFC 1573 'ifTable' entries for each LEC / emulated 802.x network interface. The RFC1406-MIB provides access to configuration and performance monitoring information for DS1 controllers and interfaces on the Cisco 7200 router.

MPLS-LDP-MIB

The MPLS-LDP-MIB (version 1) provides management information for the Multiprotocol Label Switching (MPLS) Label Distribution Protocol (LDP), which is used by label switching routers (LSRs) to communicate the definitions of labels that each router is using. The router supports the IETF draft version of this MIB (draft-ietf-mpls-ldp-mib-08.txt).

For detailed information about this MIB, see its feature module description at the following URL:

http://www.cisco.com/en/US/docs/ios/12_0st/12_0st21/feature/guide/ldpmib21.html

MIB Constraints

Table 3-39 lists the constraints that the Cisco 7200 router places on objects in the MPLS-LDP-MIB. For detailed definitions of MIB objects, see the MIB. Any object not listed in this table is implemented as defined in the MIB.

Table 3-39 MPLS-LDP-MIB Constraints

MIB Object	Notes
mplsLdpEntityTable	
• mplsLdpEntityProtocolVersion	Read-only.
• mplsLdpEntityAdminStatus	Read-only.
• mplsLdpEntityWellKnownDiscoveryPort	Read-only. Always 646
• mplsLdpEntityMaxPduLength	Read-only.
• mplsLdpEntityKeepAliveHoldTimer	Read-only.
• mplsLdpEntityHelloHoldTimer	Read-only.
• mplsLdpEntityFailedInitSessionTrapEnable	Read-only.
• mplsLdpEntityFailedInitSessionThreshold	Read-only.
• mplsLdpEntityLabelDistributionMethod	Read-only. Value downstreamUnsolicited(2))
• mplsLdpEntityPVLimitMismatchTrapEnable	Read-only.
• mplsLdpEntityPathVectorLimit	Read-only.
• mplsLdpEntityHopCountLoopDetection	Read-only.
• mplsLdpEntityHopCount	Read-only.
• mplsLdpEntityTargetedPeer	Read-only.

Table 3-39 MPLS-LDP-MIB Constraints (continued)

MIB Object	Notes
• mplsLdpEntityTargetedPeerAddrType	Read-only.
• mplsLdpEntityTargetedPeerAddr	Read-only.
• mplsLdpEntityOptionalParameters	Read-only.
• mplsLdpEntityDiscontinuityTime	Read-only.
• mplsLdpEntityStorageType	Read-only. (Value volatile(2))
• mplsLdpEntityRowStatus	Read-only. (Value active(1))
mplsLdpEntityConfGenericTable	
• mplsLdpConfGenericIfIndexOrZero	Read-only.
• mplsLdpConfGenericLabel	Read-only.
• mplsLdpConfGenericStorageType	Read-only.
• mplsLdpConfGenericRowStatus	Read-only.
mplsLdpEntityAtmParmsTable	
• mplsLdpEntityAtmIfIndexOrZero	Read-only.
• mplsLdpEntityAtmMergeCap	Read-only. Value vcMerge(2)
• mplsLdpEntityAtmLabelRangeComponents	Read-only. Value is 0
• mplsLdpEntityAtmVcDirectionality	Read-only. Value unidirectional(1)
• mplsLdpEntityAtmLsrConnectivity	Read-only.
• mplsLdpEntityDefaultControlVpi	Read-only.
• mplsLdpEntityDefaultControlVci	Read-only.
• mplsLdpEntityUnlabTrafVpi	Read-only.
• mplsLdpEntityUnlabTrafVci	Read-only.
• mplsLdpEntityAtmStorageType	Read-only. Value volatile(2)
• mplsLdpEntityAtmRowStatus	Read-only. Value iactive(1)
mplsLdpEntityConfAtmLabelRangeTable	
• mplsLdpEntityConfAtmLabelRange-MaximumVpi	Read-only.
• mplsLdpEntityConfAtmLabelRange-MaximumVci	Read-only.
• mplsLdpEntityConfAtmLabelRange-StorageType	Read-only.
• mplsLdpEntityConfAtmLabelRange-RowStatus	Read-only.
mplsLdpEntityFrameRelayParmsTable	
• mplsLdpEntityFrIfIndexOrZero	Read-only.
• mplsLdpEntityFrMergeCap	Read-only.
• mplsLdpEntityFrLabelRangeComponents	Read-only.
• mplsLdpEntityFrLen	Read-only.
• mplsLdpEntityFrVcDirectionality	Read-only.
• mplsLdpEntityFrParmsStorageType	Read-only.
• mplsLdpEntityFrParmsRowStatus	Read-only.

Table 3-39 MPLS-LDP-MIB Constraints (continued)

MIB Object	Notes
mplsLdpEntityConfFrLabelRangeTable	
<ul style="list-style-type: none"> mplsLdpConfFrMaximumDlci mplsLdpConfFrStorageType mplsLdpConfFrRowStatus 	Read-only.
mplsLdpAtmSessionTable	Not supported.
mplsLdpFrameRelaySessionTable	Not supported.
mplsLdpSessionPeerAddressTable	Not supported.
mplsLdpLibTable	Not supported.
mplsLdpFecTable	Not supported.
mplsLdpEntityConfGenericTable	Not supported.
mplsLdpEntityConfAtmLabelRangeTable	Not supported.
mplsLdpEntityFrameRelayParamsTable	Not supported.
mplsLdpEntityConfFrLabelRangeTable	
<ul style="list-style-type: none"> mplsLdpLibLspUp mplsLdpLibLspDown 	Not supported.

MPLS-LSR-MIB

The MPLS-LSR-MIB provides configuration and performance monitoring information to manage label switched paths (LSPs) through a label switching router (LSR) that is using the Multiprotocol Label Switching (MPLS) technology. The router supports the IETF version of the MPLS-LSR-MIB.

For detailed information about this MIB, see its feature module description at the following URL:

http://www.cisco.com/en/US/docs/ios/12_0st/release/notes/rn120ST.html

MIB Constraints

Table 3-40 lists the constraints that the Cisco 7200 router places on objects in the MPLS-LSR-MIB. For detailed definitions of MIB objects, see the MIB. Any object not listed in the table is implemented as defined in the MIB.

Table 3-40 MPLS-LSR-MIB Constraints

MIB Object	Notes
mplsInterfaceConfTable	
• mplsInterfaceConfStorageType	Default read-only(5).
• mplsInterfaceAvailableBandwidth	Read-only. Always 0.
• mplsInterfaceTotalBandwidth	Read-only. Always 0.
• mplsInterfaceTotalBuffer	Read-only. Always 0.
• MplsInterfaceAvailableBuffer	Read-only. Always 0.
mplsInterfacePerfTable	
• mplsInterfaceInPackets	Read-only. Always 0.
• mplsInterfaceInDiscards	Read-only. Always 0.
• mplsInterfaceFailedLabelLookup	Read-only. Always 0.
• mplsInterfaceOutPackets	Read-only. Always 0.
• mplsInterfaceOutDiscards	Read-only. Always 0.
• mplsInterfaceOutFragments	Read-only. Always 0.
mplsInSegmentTable	
• mplsInSegmentAdminStatus	Read-only. Always up(1).
• mplsInSegmentOperStatus	Always up(1).
• mplsInSegmentNPop	Read-only.
• mplsInSegmentAddrFamily	Read-only.
• mplsInSegmentOwner	Read-only. Other(1)
• mplsInSegmentTrafficParamPtr	Read-only. Always 0.
• mplsInSegmentRowStatus	Read-only. Active(5).
• mplsInSegmentStorageType	Read-only. Volatile(2)
mplsInSegmentPerfTable	
• mplsInSegmentOctets	Read-only. Always 0.
• mplsInSegmentPackets	Read-only. Always 0.
• mplsInSegmentHCOctets	Read-only. Always 0.
• mplsInSegmentErrors	Read-only. Always 0.
• mplsInSegmentDiscards	Read-only. Always 0.
• mplsInSegmentPerforDiscontinuityTime	Read-only. Always 0.
mplsOutSegmentTable	
• mplsOutSegmentIfIndex	Read-only.

Table 3-40 MPLS-LSR-MIB Constraints (continued)

MIB Object	Notes
• mplsOutSegmentPushTopLabel	Read-only.
• mplsOutSegmentTopLabel	Read-only.
• mplsOutSegmentNextHopIpAddrType	Read-only.
• mplsOutSegmentNextHopIpv4Addr	Read-only.
• mplsOutSegmentNextHopIpv6Addr	Always 0.
• mplsOutSegmentOwner	Read-only. Other(1).
• mplsOutSegmentTrafficParamPtr	Always 0.
• mplsOutSegmentRowStatus	Read-only. Active(5).
• mplsOutSegmentStorageType	Read-only. Volatile(2).
• mplsOutSegmentAdminStatus	Read-only. Always up(1).
• mplsOutSegmentOperStatus	Always up(1).
mplsOutSegmentPerfTable	
• mplsOutSegmentOctets	Read-only. Always 0.
• mplsOutSegmentPackets	Read-only. Always 0.
• mplsOutSegmentHCOctets	Read-only. Always 0.
• mplsOutSegmentErrors	Read-only. Always 0.
• mplsOutSegmentDiscards	Read-only. Always 0.
• mplsOutSegmentPerfDiscontinuityTime	Read-only. Always 0.
mplsXCTable	
• mplsXCLspId	Read-only. Does not support tunnel IDs.
• mplsXCLabelStackIndex	Read-only. Value is set to 0 because XCLabelStack is unsupported.
• mplsXCIsPersistent	Read-only.
• mplsXCOwner	Read-only. Other(1).
• mplsXCRowStatus	Read-only.
• mplsXCStorageType	Read-only.
• mplsXCAdminStatus	Read-only. Always up(1).
• mplsXCOperStatus	Always up(1).
• mplsOutSegmentIndexNext	Read-only.
• mplsXCIndexNext,	Read-only.
• mplsLabelStackIndexNext	Read-only.
• mplsTrafficParamIndexNext	Read-only.
mplsLabelStackTable	Not supported.
mplsTrafficParamTable	
• mplsInSegmentTrapEnable	Read-only.
• mplsOutSegmentTrapEnable	Read-only.

Table 3-40 MPLS-LSR-MIB Constraints (continued)

MIB Object	Notes
• mplsXCTrapEnable	Read-only.
• mplsXCUp	*Not supported.
• mplsXCDown	*Not supported.
• mplsInSegmentUp	*Not supported.
• mplsInSegmentDown	*Not supported.
• mplsOutSegmentUp	*Not supported.
• mplsOutSegmentDown	*Not supported.

* Not implemented due to scalability issues.

* mplsInterfaceConfTable—Provides information for each MPLS-capable interface on an LSR.

* mplsInterfacePerfTable—Augments the MPLS interface configuration table.

* mplsInSegmentTable—Contains a description of incoming segments at an LSR and their associated parameters. Administrative and operational status objects for this table control packet transmission. If administrative and operational status objects are down, the LSR does not forward packets. If these status objects are up, the LSR forwards packets.

* mplsInSegmentPerfTable—Augments the MPLS in-segment table, providing performance information and counters for incoming segments on an LSR.

* mplsOutSegmentTable—Contains a description of outgoing segments from an LSR and their associated parameters. Administrative and operational status objects for this table control packet transmission. If administrative and operational status objects are down, the LSR does not forward packets. If these values are up, the LSR forwards packets.

* mplsOutSegmentPerfTable—Augments the MPLS out-segment table, providing performance information and counters for outgoing segments on an LSR.

* mplsXCTable—Associates inSegments (labels) to outSegments (labels) to show the manager how the LSR is currently swapping these labels. A row in this table consists of one cross-connect entry that is indexed by the cross-connect index, the interface index of the incoming segment, the incoming label, and the out-segment index. The administrative and operational objects for this table control packet forwarding to and from a cross-connect entry (XCEntry). The administrative status and operational status are always up in the Cisco implementation. Otherwise, the LSR would not forward packets.

MPLS-TE-MIB

The MPLS-TE-MIB enables the Cisco 7200 router to perform traffic engineering for MPLS tunnels. The MIB is based on Revision 05 of the IETF MPLS-TE-MIB.

Traffic engineering support for MPLS tunnels requires the following configuration:

- Setting up MPLS tunnels along with appropriate configuration parameters.
- Configuring tunnel loose and strict source routed hops.

Refer to the Cisco MPLS MIB team web page for more documentation on this MIB:

<http://mpls-mib-group.cisco.com/>

MIB Constraints

Table 3-41 lists the constraints that the Cisco 7200 router places on objects in the MPLS-TE-MIB. For detailed definitions of MIB objects, see the MIB. Any objects not listed in this table are implemented as defined in the MIB.

Table 3-41 MPLS-TE-MIB Constraints

MIB Object	Notes
mplsTunnelIndexNext	Always 0.
mplsTunnelTable	
• mplsTunnelName	Read-only.
• mplsTunnelDescr	Read-only.
• mplsTunnelIsIf	Read-only.
• mplsTunnelXCPointer	Read-only.
• mplsTunnelSignallingProto	Read-only.
• mplsTunnelSetupPrio	Read-only.
• mplsTunnelHoldingPrio	Read-only.
• mplsTunnelSessionAttributes	Read-only.
• mplsTunnelOwner	Read-only.
• mplsTunnelLocalProtectInUse	Read-only. Always false(2).
• mplsTunnelResourcePointer	Read-only.
• mplsTunnelInstancePriority	Read-only. Always 0.
• mplsTunnelHopTableIndex	Read-only.
• mplsTunnelIncludeAnyAffinity	Read-only. Always 0.
• mplsTunnelIncludeAllAffinity	Read-only.
• mplsTunnelExcludeAllAffinity	Read-only.
• mplsTunnelPathInUse	Read-only.
• mplsTunnelRole	Read-only.
• mplsTunnelTotalUpTime	Read-only.
• mplsTunnelInstanceUpTime	Read-only. Always 0.
• mplsTunnelAdminStatus	Read-only.
• mplsTunnelRowStatus	Read-only. Always active(1).
• mplsTunnelStorageType	Read-only. Volatile(2). Always active.
Note: No constraints on other table objects.	
mplsTunnelHopListIndexNext	Read-only. Always 0.
mplsTunnelHopTable	
• mplsTunnelHopAddrType	Read-only.
• mplsTunnelHopIpv4Addr	Read-only.
• mplsTunnelHopIpv4PrefixLen	Read-only.

Table 3-41 MPLS-TE-MIB Constraints (continued)

MIB Object	Notes
• mplsTunnelHopIpv6Addr	Read-only.
• mplsTunnelHopIpv6PrefixLen	Read-only.
• mplsTunnelHopAsNumber	Read-only.
• mplsTunnelHopLspId	Read-only.
• mplsTunnelHopType	Read-only.
• mplsTunnelHopRowStatus	Read-only. Always active(1).
• mplsTunnelHopStorageType	Read-only. Volatile(2). Always active.
mplsTunnelResourceIndexNext	Read-only. Always 0.
mplsTunnelResourceTable	
• mplsTunnelResourceMaxRate	Read-only.
• mplsTunnelResourceMeanRate	Read-only.
• mplsTunnelResourceMaxBurstSize	Read-only.
• mplsTunnelResourceRowStatus	Read-only. Always active(1).
• mplsTunnelResourceStorageType	Read-only. Volatile(2). Always active.

MPLS-VPN-MIB

The MPLS-VPN-MIB:

- Describes managed objects for modeling a Multi-Protocol Label Switching/Border Gateway Protocol Virtual Private network.
- Configures and monitor routes and route targets for each VRF instance on a router
- Facilitates provisioning VPN Routing and Forwarding (VRF) instances on MPLS interfaces
- Measures the performance of MPLS/BGP VPNs

The MIB is based on Revision 05 of the IETF MPLS-VPN-MIB.



Note

Refer to the Cisco MPLS MIB team web page for more documentation on this MIB:

<http://mpls-mib-group.cisco.com/>

MIB Constraints

Table 3-42 lists the constraints that the Cisco 7200 router places on objects in the MPLS-VPN-MIB. For detailed definitions of MIB objects, see the MIB. Any objects not listed in the table are implemented as defined in the MIB.

Table 3-42 MPLS-VPN-MIB Constraints

MIB Object	Notes
MplsNumVrfSecViolationThreshExceeded	Not supported.
mplsVpnVrfSecTable	
• MplsVpnVrfSecIllegalLabelViolations	Read-only. Always 0.
• MplsVpnVrfSecIllegalLabelRcvThresh	Read-only. Always 0.
mplsVpnVrfTable	
• MplsVpnVrfConfRowStatus	Read-only.
• MplsVpnVrfConfStorageType	Read-only. Volatile(2).
• MplsVpnVrfConfMidRouteThreshold	Read-only.
• MplsVpnVrfConfHighRouteThreshold	Read-only.
• MplsVpnVrfConfMaxRoutes	Read-only.
• MplsVpnVrfConfMaxPossibleRoutes	Read-only. Always 0.
• MplsVpnVrfDescription	Read-only.
• MplsVpnInterfaceVpnClassification	Read-only.
mplsVpnInterfaceConfTable	
• MplsVpnInterfaceConfStorageType	Read-only. Volatile(2).
• MplsVpnInterfaceConfRowStatus	Read-only. Values: active(1), notInService(2).
• MplsVpnInterfaceLabelEdgeType	Read-only. providerEdge(1).
mplsVpnVrfRouteTargetTable	
• MplsVpnVrfRouteTargetRowStatus	Read-only. Values: active(1), notInService(2).
mplsVpnVrfBgpNbrAddrTable	
• MplsVpnVrfBgpNbrRowStatus	Read-only. Values: active(1), notInService(2).
• MplsVpnVrfBgpNbrRole	Read-only. providerEdge(1).
• MplsVpnVrfBgpNbrType	Read-only.
• MplsVpnVrfBgpNbrAddr	Read-only.
• MplsVpnVrfBgpNbrStorageType	Read-only. Volatile(2).
mplsVpnVrfRouteTable	
• MplsVpnVrfRouteInfo	Read-only. Value zero length string OID.
• MplsVpnVrfRouteTarget	Read-only. Determines the route distinguisher for this target.

Table 3-42 MPLS-VPN-MIB Constraints (continued)

MIB Object	Notes
• MplsVpnVrfRouteTargetDescr	Description of the route target. This object is not supported in this Cisco IOS release. Therefore, the object is the same as mplsVpnVrfRouteTarget.
• MplsVpnVrfRouteDistinguisher	Read-only.
• MplsVpnVrfRouteNextHopAS	Read-only. Value always 0.
• MplsVpnVrfRouteRowStatus	Read-only. This object normally reads active(1), but may read notInService(2), if a VRF was recently deleted.
• MplsVpnVrfRouteStorageType	Read-only. Volatile(2).
• MplsVpnVrfRouteDestAddrType	Read-only.
• MplsVpnVrfRouteMaskAddrType	Read-only.
• MplsVpnVrfRouteTos	Read-only. Value always 0.
• MplsVpnVrfRouteNextHop	Read-only.
• MplsVpnVrfRouteNextHopAddrType	Read-only.
• MplsVpnVrfRouteIfIndex	Read-only.
• MplsVpnVrfRouteType	Read-only.
• MplsVpnVrfRouteProto	Read-only.
mplsVpnVrfBgpNbrPrefixTable	Not supported.

The mplsVpnVrfConfTable represents all the MPLS/BGP VPNs configured. The NMS configures an entry in this table for each MPLS/BGP VPN configured to run in this MPLS domain. The mplsVPNInterfaceConfTable extends the interface MIB to provide specific MPLS/BGP VPN information on MPLS/BGP VPN-enabled interfaces. The mplsVPNPerfTable enhances the mplsVpnVrfConfTable to provide performance information.

The mplsVpnVrfRouteTable and the mplsVpnRouteTargetTable facilitate the configuration and monitoring of routes and route targets, respectively, for each VRF instance.

MSDP-MIB

The MSDP-MIB contains objects to monitor the Multicast Source Discovery Protocol (MSDP). The MIB can be used with SNMPv3 to remotely monitor MSDP speakers.

For more information about this MIB, see its feature module description at the following URL:

http://www.cisco.com/en/US/docs/ios/12_1t/12_1t5/feature/guide/dt5msdp.html

NOTIFICATION-LOG-MIB (RFC 3014)

The NOTIFICATION-LOG-MIB defines objects that record notification information against lost notifications, whether those are traps or informs (the two types of notifications supported). It provides inventory management and monitoring capabilities. This MIB provides common infrastructure for other MIBs in the form of a local logging function.

The management stations:

- Query the MIB using GET requests to determine if they missed any notifications which were generated but were never received.
- Refine the MIB logs by using the SNMP SET operation on objects which enable control over log sizes. This control can be executed on a global basis (affecting the whole Notification Log MIB database) or on a per named log basis.
- Specify the maximum time a notification can remain logged in the Notification Log MIB.

**Note**

Because this MIB logs all notifications, this ensures that all notifications which are dropped from the trap queue are also logged by this MIB. Inform retries are not logged. Traps sent to multiple recipients are logged only one time. Currently, this MIB logs notifications originating at the local engine only.

NOVELL-IPX-MIB

The NOVELL-IPX-MIB defines the management information for a system using the IPX protocol. This MIB is designed to provide a basic framework for the management of systems implementing the IPX protocol. This MIB is virtually identical to the IPX MIB distributed as a part of the Novell NetWare Link Services Protocol (NLSP) Specification 1.0, Novell Part Number 100-001708-002, 2nd Edition Feb '94.

NOVELL-RIPSAP-MIB

The NOVELL-RIPSAP-MIB defines the management information for the RIP and SAP protocols running in an IPX environment. It provides information in addition to that contained in the IPX MIB itself. This MIB is virtually identical to the RIPSAP MIB distributed as a part of the Novell NetWare Link Services Protocol (NLSP) Specification 1.0, Novell Part Number 100-001708-002, 2nd Edition Feb '94.

OLD-CISCO-APPLETALK-MIB

The OLD-CISCO-APPLETALK-MIB provides information about Appletalk traffic on the router.

OLD-CISCO-CHASSIS-MIB

The OLD-CISCO-CHASSIS-MIB describes chassis objects in devices running an earlier release of the Cisco IOS operating system. This MIB is deprecated, and is being replaced by the ENTITY-MIB. However, the Cisco 7200 router implements the OLD-CISCO-CHASSIS-MIB to support earlier network management applications that do not implement the ENTITY-MIB.

Network management applications that do not support the ENTITY-MIB can use the OLD-CISCO-CHASSIS-MIB to discover port adapters.

MIB Constraints

The OLD-CISCO-CHASSIS-MIB is deprecated. Most chassis objects are now described in the ENTITY-MIB; therefore, where possible, we recommend that you use the ENTITY-MIB instead of the OLD-CISCO-CHASSIS-MIB.

The OLD-CISCO-CHASSIS-MIB is supported on the Cisco 7200 router for modules and port adapters. Table 3-43 lists the constraints that the router places on objects in the MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-43 OLD-CISCO-CHASSIS-MIB Constraints for Port Adapters

MIB Object	Notes						
cardTable							
<ul style="list-style-type: none"> cardType 	<p>The following values are used for 7200 router cards:</p> <table border="1"> <thead> <tr> <th>Module or Port Adapter</th> <th>cardType Value</th> </tr> </thead> <tbody> <tr> <td>PA-A3-T3</td> <td>pa-atmdx-ds3(406)</td> </tr> <tr> <td>PA-A3-E3</td> <td>pa-atmdx-e3(407)</td> </tr> </tbody> </table>	Module or Port Adapter	cardType Value	PA-A3-T3	pa-atmdx-ds3(406)	PA-A3-E3	pa-atmdx-e3(407)
Module or Port Adapter	cardType Value						
PA-A3-T3	pa-atmdx-ds3(406)						
PA-A3-E3	pa-atmdx-e3(407)						
<ul style="list-style-type: none"> cardOperStatus 	Port adapter status matches module status.						
cardIfIndexTable	Used for port adapters only.						

OLD-CISCO-CPU-MIB

The OLD-CISCO-CPU-MIB describes CPU usage and active system processes on devices running an earlier implementation of the Cisco IOS operating system.

OLD-CISCO-DECNET-MIB

The OLD-CISCO-DECNET-MIB provides information about the implementation of DECnet on the router. DECnet is group of communications products (including a protocol suite) developed by Digital Equipment Corporation that supports the Open System Interconnection (OSI) protocol and proprietary Digital protocols.

OLD-CISCO-INTERFACES-MIB

The OLD-CISCO-INTERFACES-MIB contains objects to manage interfaces on devices running an earlier implementation of the Cisco IOS operating system.

OLD-CISCO-IP-MIB

The OLD-CISCO-IP-MIB contains objects to manage IP on devices running an earlier implementation of the Cisco IOS operating system.

MIB Constraints

Table 3-44 lists the constraints that the router places on objects in the MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-44 *OLD-CISCO-IP-MIB Constraints for Port Adapters*

MIB Object	Notes
<code>lipCkAccountingTable</code>	Deprecated.
<code>lipAccountingTable</code>	Deprecated.
<code>lipRouteTable</code>	Deprecated.

OLD-CISCO-MEMORY-MIB

The OLD-CISCO-MEMORY-MIB contains objects that describe memory pools on devices running an earlier implementation of the Cisco IOS operating system.

OLD-CISCO-NOVELL-MIB

The OLD-CISCO-NOVELL-MIB provides information about Novell traffic on the router, including packet counts and IPX accounting and checkpoint accounting information.

OLD-CISCO-SYSTEM-MIB

The OLD-CISCO-SYSTEM-MIB provides information about the router (such as its name, software bootload, and configuration file), and contains controls for reloading software onto the router and clearing the Address Resolution Protocol (ARP) cache.

OLD-CISCO-TCP-MIB

Starting with Cisco IOS software Release 10.2, all objects defined in this MIB have been deprecated. They have been replaced with the objects defined in the CISCO-TCP-MIB.my document. Management applications should no longer examine the objects defined in this MIB.

OLD-CISCO-TS-MIB

The OLD-CISCO-TS-MIB provides information about the number of terminal lines and virtual lines on this device.

PIM-MIB

The PIM-MIB contains objects to configure and manage Protocol Independent Multicast (PIM) on the router. The MIB is extracted from RFC 2934.

MIB Constraints

Table 3-45 describes the constraints on tables from the PIM-MIB. Any objects or tables not listed in this table are defined as in the MIB.

Table 3-45 PIM-MIB Object or Table Constraints

MIB Object	Notes
pimInterfaceTable	Read-only.
pimComponentTable	Read-only.
pimCandidateRPTable	Read-only.
pimRPTable	Deprecated.

RFC1213-MIB

The RFC1213-MIB defines the second version of the Management Information Base (MIB-II) for use with network-management protocols in TCP-based internets.

RFC1243-MIB

The RFC1243-MIB uses the extended OBJECT-TYPE macro as defined in llapEntry 9 (9). The total number of times this LocalTalk interface received a lapRTS packet and expected a data packet, but did not receive any data packet.

MIB Constraints

Table 3-46 describes the constraints on tables from the PIM-MIB. Any objects or tables not listed in this table are defined as in the MIB.

Table 3-46 RFC1243-MIB Object or Table Constraints

MIB Object	Notes
atportTable	
<ul style="list-style-type: none"> • atportType • atportNetStart • atportNetEnd • atportNetAddress • atportStatus 	<ul style="list-style-type: none"> Read-only. Read-only. Read-only. Read-only. Read-only.

Table 3-46 *RFC1243-MIB Object or Table Constraints (continued)*

MIB Object	Notes
• atportZone	Read-only.
• atportIfIndex	Read-only.

RFC1253-MIB

The RFC1253-MIB contains objects to manage Version 2 of the Open Shortest Path First (OSPF) protocol.

RFC1315-MIB

The RFC1315-MIB contains objects to manage a Frame Relay data terminal equipment (DTE) interface, which consists of a single physical connection to the network with many virtual connections to other destinations and neighbors. The MIB contains the objects used to manage:

- The Data Link Connection Management Interface (DLCMI)
- Virtual circuits on each Frame Relay interface
- Errors detected on Frame Relay interfaces

MIB Constraints

[Table 3-47](#) lists the constraints that the Cisco 7200 router places on objects in the RFC1315-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-47 *RFC1315-MIB Constraints*

MIB Object	Notes
frDlcmiTable	
• frDlcmiAddressLen	Read-only.
• frDlcmiMaxSupportedVCs	Read-only.
frCircuitTable	
• frCircuitState	Read-only.
• frCircuitCommittedBurst	Read-only.
• frCircuitExcessBurst	Read-only.
• frCircuitThroughput	Read-only.
frTErrable	
• frErrIfIndex	Read-only.
• frErrType	Read-only.
• frErrData	Read-only.
• frErrTime	Read-only.

RFC1315-MIB

The RFC1315-MIB contains objects to manage a Frame Relay data terminal equipment (DTE) interface, which consists of a single physical connection to the network with many virtual connections to other destinations and neighbors. The MIB contains the objects used to manage:

- The Data Link Connection Management Interface (DLCMI)
- Virtual circuits on each Frame Relay interface
- Errors detected on Frame Relay interfaces

MIB Constraints

Table 3-47 lists the constraints that the Cisco 7200 router places on objects in the RFC1315-MIB. For detailed definitions of MIB objects, see the MIB.

Table 3-48 RFC1315-MIB Constraints

MIB Object	Notes
frDlcmiTable	
• frDlcmiAddressLen	Read-only.
• frDlcmiMaxSupportedVCs	Read-only.
frCircuitTable	
• frCircuitCommittedBurst	Normally, the QoS configuration entered through the Modular QoS CLI (MQC) syntax does not appear in these frCircuitTable objects. However, when QoS is configured through the MQC and the following conditions are met, these frCircuitTable objects contain the QoS values as they are entered through the MQC:
• frCircuitExcessBurst	
• frCircuitThroughput	
	<ul style="list-style-type: none"> • The default class is configured on the policy-map only. • An output policy is attached to the Frame Relay (FR) Permanent Virtual Circuit (PVC). • The Cisco-class-based-QoS (CBQ) enhancement only supports two MQC actions: police cir and shape. • If both police cir and shape actions exist, then the FR traffic-shaping
• frCircuitState	Read-only.
frErrable	
• frErrIfIndex	Read-only.
• frErrType	Read-only.
• frErrData	Read-only.
• frErrTime	Read-only.

RFC1381-MIB

The RFC1381-MIB (LAPB MIB file) was extracted from RFC 1381. The LAPB administration table contains objects that can manage a LAPB interface.

RFC1382-MIB

The RFC1382-MIB was extracted from RFC 1382. Several changes were made to the MIB to allow it to compile in a Cisco environment:

- Remove IMPORT statements for EntryStatus, PositiveInteger, and IfIndexType.
- Hand-imported the above types by copying the definitions from their respective files.
- The range of x25OperRestartCount was increased to be the largest integer possible.

DS1-MIB (RFC2495)

The DS1-MIB defined by RFC2495 provides access to configuration and performance monitoring information for DS1 controllers (digital signal levels) and interfaces on the Cisco 7200 router.

DS3-MIB (RFC2496)

The DS3-MIB defined by RFC2496 provides access to configuration and performance monitoring information for DS3 controllers and interfaces.

RFC2006-MIB

The RFC2006-MIB is the MIB module for the Mobile IP.

RMON-MIB

The RMON-MIB contains objects to remotely monitor devices in the network. Supports MIB version RFC 1757.

MIB Constraints

Table 3-49 lists the constraints that the Cisco 7200 router places on objects in the RMON-MIB. For detailed definitions of MIB objects, see the MIB. Any other object not listed in the table is implemented as defined in the RMON-MIB.

Table 3-49 RMON-MIB Constraints

MIB Object	Notes
hostTopNControlTable	
• hostTopNHostIndex	Range {1 65535}
• hostTopNRateBase	Range {1 11}
• hostTopNRequestedSize	Range {0 2147483647}
• hostTopNTimeRemaining	Range {0 2147483647}
channelTable	
• channelIfIndex	Range {1 65535}
• alarmInterval	Range {1 2147483647}
rmonEtherStatsGroup	
• etherStatsOwner	Range {0 127}
• historyControlOwner	Range {0 127}
• hostControlOwner	Range {0 127}
• hostTopNOwner	Range {0 127}
• matrixControlOwner	Range {0 127}
• channelOwner	Range {0 127}
rmonEventGroup	
• eventCommunity	Range {0 127}
• filterOwner	Range "{0 127}
• bufferControlOwner	Range {0 127}
• alarmOwner	Range {0 127}
• eventOwner	Range {0 127}
filterTable	
• filterPktData	Range {0 255}
• filterPktDataMask	Range {0 255}
• filterPktDataNotMask	Range {0 255}

RMON2-MIB

The RMON2-MIB contains objects to manage remote monitoring device implementations. This MIB module augments the original RMON MIB as specified in RFC 1757. We support the RFC 2021 version of the MIB.

RS-232-MIB

The RS232-MIB contains objects to manage RS-232-like hardware interfaces and devices.

RSVP-MIB

The RSVP-MIB contains objects to manage the Resource Reservation Protocol (RSVP).

MIB Constraints

[Table 3-50](#) lists the constraints that the Cisco 7200 router places on objects in theRSVP-MIB. For detailed definitions of MIB objects, see the MIB. Any other object not listed in the table is implemented as defined in the RSVP-MIB.

Table 3-50 *RSVP-MIB Constraints*

MIB Object	Notes
rsvpObjectsTable	
• rsvpSessionNewIndex	Read-only.
• rsvpSenderNewIndex	Read-only.
• rsvpResvNewIndex	Read-only.
• rsvpResvFwdNewIndex	Read-only.

SMON-MIB

The SMON-MIB manages remote monitoring device implementations for Switched Networks. Identifies the source of the data that the associated function is configured to analyze. This Textual Convention extends the DataSource Textual Convention defined by RMON 2 to the following data source types:

- ifIndex
- smonVlanDataSource
- entPhysicalEntry

SNA-SDLC-MIB

The SNA-SDLC-MIB contains objects that manage SDLC (synchronous data link control) devices.

SNMP-FRAMEWORK-MIB

The SNMP-FRAMEWORK-MIB (RFC 2571) contains objects that describe the SNMP management architecture.

There are no constraints on this MIB.

SNMP-NOTIFICATION-MIB

The SNMP-NOTIFICATION-MIB contains managed objects for SNMP v3 notifications. The MIB also defines a set of filters that limit the number of notifications generated by a particular entity (snmpNotifyFilterProfileTable and snmpNotifyFilterTable).

Objects in the snmpNotifyTable are used to select entities in the SNMP-TARGET-MIB snmpTargetAddrTable and specify the types of SNMP notifications those entities are to receive.

SNMP-PROXY-MIB

The SNMP-PROXY-MIB contains managed objects to remotely configure the parameters used by an SNMP entity for proxy forwarding operations. The MIB contains a single table, snmpProxyTable, which defines the translations to use to forward messages between management targets.

SNMP-TARGET-MIB

The SNMP-TARGET-MIB (RFC 2573) contains objects to remotely configure the parameters used by an entity to generate SNMP notifications. The MIB defines the addresses of entities to send SNMP notifications to, and contains a list of tag values that are used to filter the notifications sent to these entities (see the SNMP-NOTIFICATION-MIB). There are no constraints on this MIB.

SNMP-USM-MIB

The SNMP-USM-MIB (RFC 2574) contains objects that describe the SNMP User-based Security Model. There are no constraints on this MIB.

SNMP-VACM-MIB

The SNMP-VACM-MIB (RFC 2575) contains objects that describe the view-based access control model for SNMP.



Note

To access this MIB, you must create an SNMP v3 user with access to a view that includes all of the information from the Internet subtree. For example:

```
Router(config)# snmp-server view abcview internet included
Router(config)# snmp-server group abcgroup v3 noauth read abcview write abcview
                notify abcview
Router(config)# snmp-server user abcuser abcgroup v3
```

MIB Constraints

Table 3-51 lists the constraints that the Cisco 7200 router places on objects in the SNMP-VACM-MIB. For detailed definitions of MIB objects, see the MIB. Any other object not listed in the table is implemented as defined in the SNMP-VACM-MIB.

Table 3-51 SNMP-VACM-MIB Constraints

MIB Object	Notes
vacmBasicGroup	
<ul style="list-style-type: none"> vacmViewSpinLock 	Read-only.

SNMPv2-MIB

The SNMPv2-MIB contains objects SNMPv2 entities. The SNMPv2-MIB contains the following mandatory object groups:

- SNMP group—Collection of objects providing basic instrumentation and control of an SNMP entity.
- System group—Collection of objects common to all managed systems.
- snmpSetGroup—Collection of objects which allow several cooperating SNMPv2 entities, all acting in a manager role, to coordinate their use of the SNMPv2 set operation.
- snmpBasicNotificationsGroup—The two notifications are coldStart and authenticationFailure which an SNMPv2 entity is required to implement.

SONET-MIB

The SONET-MIB provides both configuration and performance monitoring objects for SONET interfaces.

MIB Constraints

Table 3-52 lists the constraints that the Cisco 7200 router places on objects in the SONET-MIB. Any other objects not listed in the table are defined as in the RFC1595 MIB definition. For detailed definitions of MIB objects, see the MIB.

Table 3-52 SONET-MIB Constraints

MIB Object	Notes
sonetPathCurrentTable	
• sonetPathCurrentStatus	Range {1 62}

SOURCE-ROUTING-MIB

The SOURCE-ROUTING-MIB contains objects to configure and manage source routing and source routing transparent bridges. We support the RFC 1525 version of the MIB.

TCP-MIB

The TCP-MIB (RFC 2012) contains objects to manage the Transmission Control Protocol (TCP) implementations on the router. There are no constraints.

UDP-MIB

The UDP-MIB (RFC 2013) contains objects to manage the User Datagram Protocol (UDP) on the router. There are no constraints.

