

## Supported Protocols and MIBs

---

This appendix describes the various protocols and Management Information Bases (MIBs) supported by the Cisco 1020.

The supported protocols:

- ARP—Address Resolution Protocol is used to determine the destination Media Access Control (MAC) address of a host using its known IP address.
- ICMP—Internet Control Message Protocol allows hosts to send error or control messages to other hosts. ICMP is a required part of the IP protocol. For example, the **ping** command uses ICMP echo requests, to test whether a destination is alive and reachable.
- IP—The Internet Protocol is used to send IP datagram packets between nodes on the Internet.
- IPX—Internet Packet Exchange Protocol is a Novell NetWare product.
- Ping—Packet InterNet Groper is used to test the ability to reach destinations by sending them an ICMP echo request and waiting for a reply.
- PPP—Point to Point Protocol is a transport protocol that runs over serial links, allowing IP and IPX communications.
- RIP—Routing Information Protocol allows routers to exchange routing information dynamically for IP and IPX.
- RARP—Reverse Address Resolution Protocol is used to determine an IP address utilizing only a MAC address that is known.
- SLIP—Serial Line Internet Protocol is a version of IP that runs over serial links, allowing IP communications over an asynchronous interface.

## MIBs Supported

---

- **SNMP**—Simple Network Management Protocol agents process requests for network management stations and report exception conditions when they occur. This requires access to information stored in a Management Information Base (MIB). (Refer to the following section, “MIBs Supported.”)

The following are the basic functions supported by the Cisco 1020 SNMP agent:

- Accessing a MIB variable using Get or Get Next. This function is initiated by the SNMP agent as a result of a request for the value of a MIB variable from a network management station. The SNMP agent gets the value of a MIB variable by accessing information stored in a MIB and then responds.
- Setting a MIB variable. This function is also initiated by the SNMP agent as a result of a message from a network management station. The SNMP agent requests that the value of a MIB variable be changed.
- **TCP**—Transmission Control Protocol is a reliable, full-duplex, connection-oriented, end-to-end transport protocol running on top of IP. For example, the Telnet protocol uses TCP/IP.
- **Telnet**—A terminal-emulation protocol, which allows you to remotely access the administrative interface of a router over a network (in band).
- **TFTP**—Trivial File Transfer Protocol is used for downloading software updates to the Cisco 1020.
- **UDP**—User Datagram Protocol allows an application such as an SNMP agent on one machine to send a datagram to an application (a network management station using SNMP) on another machine. UDP uses IP to deliver datagrams. UDP/IP is also used by TFTP.

## MIBs Supported

The Cisco 1020 SNMP agent supports SNMP MIB II (RFC 1213).