Simple Network Management Protocol (SNMP)

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Simple Network Management Protocol (SNMP) is an Application Layer Protocol within the Open Systems Interconnection (OSI) Model stack. It is used for monitoring and managing Network Devices on a Local Area Network (LAN) or Wide Area Network (WAN).

The purpose of **SNMP** is to provide network devices, such as Routers, Servers and printers, with a common language for sharing information with a Network Management System (NMS).

SNMP's Client-Server architecture has the three following components:

- an **SNMP** manager;
- an **SNMP** agent; and
- a **Management Information Base (MIB)**.

The **SNMP** manager acts as the Client, the **SNMP** agent acts as the Server, and the MIB acts as the server's Database. When the **SNMP** manager asks the agent a question, the agent uses the MIB to supply the answer.

SNMP is so popular that most network devices come pre-bundled with **SNMP** agents. To make use of the protocol, however, network administrators must first change the default configuration settings of their network devices so **SNMP** agents can communicate with the NMS.

SNMP is part of the original Internet Protocol (IP) suite as defined by the Internet Engineering Task Force (IETF). Multiple versions of the **SNMP** protocol exist. The most recent version, **SNMPv3**, includes security mechanisms for authentication, encryption and access control.

Source: https://www.techtarget.com/searchnetworking/definition/SNMP