

Definition of the term SNMP

SNMP means **Simple Network Management Protocol**. It is a [protocol](#) which enables network administrators to manage network devices and diagnose network problems.

SNMP operating principle

The network management system is based on two main elements: a supervisor and agents. The supervisor is the terminal which enables the network administrator to carry out management requests. The agents are entities which are found at the level of each interface connecting the managed devices to the network and making it possible to collect information on the different objects.

[Switches](#), [hubs](#), [routers](#) and [servers](#) are examples of hardware containing managed objects. These managed objects can be hardware information, configuration parameters, performance statistics and other elements which are directly linked to the behaviour in progress for the hardware in question. These elements are classed in a sort of database called **MIB** ("*Management Information Base*"). SNMP allows dialogue between the supervisor and agents in order to collect the required objects in the MIB.

The management architecture of the network proposed by the SNMP protocol is therefore based on three principal elements:

- The **managed devices** are the network elements (bridges, hubs, routers or servers) containing "*managed objects*" which can be hardware information, configuration elements or statistical information;
- The **agents**, i.e. a network management application residing in a peripheral and responsible for transmitting local management data from the peripheral in SNMP format;
- The **network management systems (NMS)**, i.e. a terminal through which administrators can conduct administration tasks.