

Week paper study mode

[Sociology](#), [Communication](#)



This allows for real-time monitoring as well as report generated analyses. However, there are a few cornerstone components that should be explored. The Manager, Agent, NIB, Probe, SNAP, and ROOM are probably the most valued components. Let us start with the Manager and Agent. These terms are very similar in concept to the client/server relationship. The Manager/Agent relationship is an asymmetric communication type that works in a way, much like a selectiveness. Take a look to the anaphoric (Figure 1). You can see how the manager acts as a client while the managed system acts as a server per SE.

However, while animal, there is a difference from the client/server that should be noted when applying it to the Manager/Agent relationship. Where there typically is many clients to one server, there are many agent to one manager. (Clime 77) So now that we have that straightened out, let us look at each role a little closer. The Manager acts as the controller and reporter of the Network Management System. It can physically be either an application or a user. Typically the manager is an application that monitors various devices also known as Network Elements, (NEST) on a network.

These network elements managed by the manager are considered Agents. Agents respond back to requests from the manager for information. They send back vital information about the devices and the overall network to the manager. This is how the manager updates the data it can produce to be later analyzed by the Network Administrator or monitored in real-time. (Clime 77) If you look to the right (Figure 2), you can see an example of what the information might look like when reported back to the user. A Probe is the way the NIB retrieves the instances it stores.

While the term probe may have many definitions, for our purposes, we will define it as: "A probe is a program or other device inserted at a key juncture in a network for the purpose of monitoring or collecting data about network activity." ("Probe") So a probe can be used to gather information that will later be stored virtually in the NIB. A simple example of a probe is the very common "Ping" command. It sends out a packet to check for the existence of the EN on the Network. Next, let's look at one of the common protocols used in the Network Management System.

Simple Network Management Protocol, commonly abbreviated as SNMP, is the protocol that enables a manager to communicate with the many agents on the network. SNMP operates on the application layer of the OSI model, due to it being a TCP/IP protocol. Every SNMP packet sent contains a community string, a version number, and a command or response for the manager. ("Network Monitoring Software; are by Management Manager") Finally, the last Common component to discuss is the ROOM. ROOM is short for remote monitoring. "ROOM is basically a special SNMP NIB that enables managers to delegate certain management tasks to so-called ROOM probes. (Cline 307) As you can tell, the ROOM utilizes and interacts with a few of the other key components already mentioned. Some of the ROOM probe functions are the ability to create dividing lines of certain thresholds for alerts or creating a probe to run hourly for status of a certain instance. In conclusion, the Network Management System is used to monitor and manage a network's stability and smooth operation. The Manager, Agent, NIB, SNMP, and ROOM are five of the main components to a MS. Through the

utilization of these components, a Manager can interact with agents on the network.