

ABSTRACT

SNMP is the protocol that's designed to handle network management by using Management Information Based (MIB) that's kept by the agent. Manager can request to agent and agent will send response or trap to manager.

Network management software with SNMP usually has limited monitoring function only to know about traffic or utility. Meanwhile, the needs of network management are not only monitoring but also other functions like to know or to change the MIB's variable of agent. Other important functions of Network Management Software are such as: monitoring, configuration, and trap handling.

The network management software on this final project has more complete management functions with based on web modelling on tree-tier form, so the network management system that's built has the centralized network management to handle more than one agent. Beside the three main functions, this software also handles statistical measuring to predict packet numbers and to count the probability of packet blocking.

The tree-tier modeling has three layers are: SNMP agent on the network device, manager application and web browser, and intranet/internet as the center layer. SNMP function likes: `get()`, `set()`, and `walk()` will be accessed by PERL through `SNMP_Session` and it will be combined with HTML syntax to web server.

Keywords: SNMP, Network Management, MIB, Agent, Tree-tier.