INTEGRATED SOLUTION TO MONITOR AND AUDIT NETWORK FOR IT AND NON-IT PERSONNEL

(Development of a user friendly Prototype)

PROJECT REPORT PRESENTED BY
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The early 1980s saw tremendous expansion in the area of network deployment. As companies realized the cost benefits and productivity gains created by network technology, they began to add networks and expand existing networks almost as rapidly as new network technologies and products were introduced. By the mid-1980s, certain companies were experiencing growing pains from deploying many different network technologies.

The problems associated with network expansion affect both day-to-day network operation management and strategic network expansion planning. Each new network technology requires its own set of experts. In the early 1980s, the staffing requirements alone for managing large, heterogeneous networks created a crisis for many organizations. An urgent need arose for automated network monitoring and management integrated across diverse environments.

Network monitoring provides the information necessary for network management. It is important to find network usage and locate network problems quickly. In this Project, the

fundamentals of network monitoring are discussed at the beginning to set the background for subsequent sections on network monitoring.

This project is aiming at developing an integrated software package gives effective and efficient monitoring and auditing system for network administrators and security auditors as well as non-technical personals. The report also gives the details on the network monitoring technologies and tools. The application is developed to run on windows based operating system.

Ping is one of the most commonly used utilities on the Internet by people and programs, with untold millions of pings flashing every second back and forth between computers. The original PING utility stood for "Packet Internet Groper". Almost every operating system includes a Ping program. It has become one of the most versatile and widely used diagnostic tools on the Internet. Ping sends a small packet of information containing an ICMP ECHO_REQUEST to a specified computer, which then sends an ECHO_REPLY packet in return.

The Simple Network Management Protocol (SNMP) is an application-layer protocol that facilitates the exchange of management information between network devices. It also deals with the SNMP Management Information Base (MIB) that is a collection of information that is organized hierarchically. This project also explores the various research and development done on network monitoring application, network monitoring protocols and some libraries support from windows operating system.

In this Project Ping is used as main utility to get the network status and information. For the future development SNMP protocol can be utilised to get more information on network.