Network Monitoring System

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Introduction

A computer network consists of network elements like nodes,links,routers etc.The network administrator(manager) is the who manages the network.Administrator faces problems in managing the network.Network Monitoring system plays a significant role in the network management.A network monitoring system lets the administrator know how well the network is running during the course of oridinary operations.Network Monitoring is essential in an active network in order to diagnose problems and gather statistics for administration and fine tuning.A NMS can provide various monitoring techniques including grpahing,notification system and configuration management.

Problem Statement

System and Network administrators are responsible when something goes wrong on the network.They have no information of what may have caused a network failure.This is more so on computer networks that do not have any high grade network monitoring software installed.This scenario is common place in academic institutions because of mentioned reasons.This was the main purpose for the study and project development. Monitoring data rate and traffic within an organization or an office is must when there is limited availability of various resources and more number of people.

Objective

The system aims to provide a medium to the administrator of the network to be able to view the data statisticts of the various clients or devices connected to the network.The following are the objectives of the network monitoring and configuration system:

- To be able to give the administrators able to view the data traffic or usage statistics be each client in the organization.

- To display the data usage statistics in form of graph for each client in the browser.

- To configure client devices and computers

- To monitor TCP as well as UDP data traffic that is flowing through various interfaces of the client computer.

- To view information about the client computer

Scope and Limitation

The network monitoring system can is essential to various organizations or offices, computer labs. The system can also be used in monitor and configure remote servers.

- Limitation

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Methodology

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- Requirement Identification
    - Study of existing system
    - Requirement Collection
- Feasibility Study
    - Technical
    - Operational
    - Economical
- Tools
    - Analysis and Design Tools
    - Implementation tools(Front End, Back End)

High level design of Proposed System

Gantt Chart showing the projected time planning

Expected Outcomes