

Development of Network Monitoring System

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Abstract— Many of the organization or fields wants to form a network because to make their work easier and share their information very quickly. While connecting we want to monitor the network system activities for secure purpose. This is mainly concentrate on administrative task and client server performance. From server we can monitor the particular client screen activities that are currently opened screens, what are all files created, modified and deleted.

Keywords— Network Monitor; Administrator; Client and Server.

1. Introduction

Now a day Computer networks is increasingly important role in today's technical age. But before the transfer of any information between the computers it is critical to know if this transmission can actually take place. For this, it is important to check if the computer ready for data transfer are up in the network or not.

This network monitoring system saves our money and time in network performance.it is use various application and a combination of plug and plug hardware and software appliance. [1]The scope and its implementation across various plant control and monitoring systems tend to be ill defined, leading to scope during execution. The purpose of network monitoring is the gathering of useful information from many parts of the network so that the network can be succeeded and measured using the calm information. Network monitoring techniques are established to allow network management applications to check the states of their network devices. As ever more network devices are used to build superior networks, network monitoring techniques are stretched to monitoring networks as a whole.

2. System Model

Network monitoring (figure1) shows the proposed development of network monitoring system. [7] A network is a collection of devices that are connected and can communicate with one another over a mutual transport or communication protocol. Here statement can refer to the transfer of data among users or instruction between nodes

in the network, such as laptops ,computers, mobile devices, output devices, organization elements, servers, routing and switching devices, etc.

Whatever be the design, ever network follows a reference design as described in the OSI model for data transmission and communication. There are many apparatuses that make a network and permits communication between various nodes. This is designed only for class C network.



Fig.1 : Network Monitoring

Information related events that occurred on the system (eg. data loss, important issues with routine), security events (unsuccessful login, tries to access secure files, security log damaging etc.), or system events. These logs can be monitoring system to detect possible problems with server and client systems. Now that you know what makes up a network and the component obtainable for windows monitoring, let us look at common monitoring performances used by network and systems admins. In order to positively monitor your network or equal server and systems, the handiness of the bellow options are compulsory.

- Data or information from numerous origins in the network. Data contains statistics about the working, current status & performance, and qualification of the component being monitored.
- An application or monitoring software duty be able to gather.
- Process and present data in a user friendly format. Software should even alert user about impending problem based on thresholds.

- A protocol or method for conveying information in the middle of the monitored component and the monitoring software.

2.1 Existing Work

The existing system has been preserved physically. The system, which has been preserved manually, had been complex and difficult. There were many probabilities to loss the data and the effort wouldn't be an effective and efficient one. Manual process is always been problematical to the organizations for upholding the records. In the existing system. In the base paper authors are use many of the algorithm for encrypting the data, so it make a traffic on network path..

- In this system we can't monitor who all are retrieving the files at the similar time.
- It's problematic to invention which are the files are updated and renamed.

2.2 Proposed Work and Methodology

In this system we can monitor who all are retrieving the files in the network at the same time. And we can find the data usage level and we can provide limited amount of accessing time. And using remote desktop technology, only authenticated user can access.

- Advance IP scanner
- Client server operation
- SNMP protocol
- Remote desktop monitoring

A. Advanced IP Scanner

Advanced IP Scanner is a fast and calm to use network scanner [7] that notices any network devices (as well as wireless devices such as cellular phones, printers and WIFI routers) on your network. It permits you to connect to share services such as HTTP, FTP and communal folders if they are allowed on the remote machine. You are also talented to get up and shut down remote computers. This device helps to admin for generous data limitation to clients.



Fig.1: Advanced IP Scanner

B. Client Server Operation

While monitoring client sends a appeal to the server then server will give a right reply to the client. Which means while logs into the server, the user's IP address and system name are incorporated to the server? Then server will respond to the client's demand. And server can communicate with client via emails also. With this communication data are encrypted then only send to the client/server after receiving their decrypt the data.

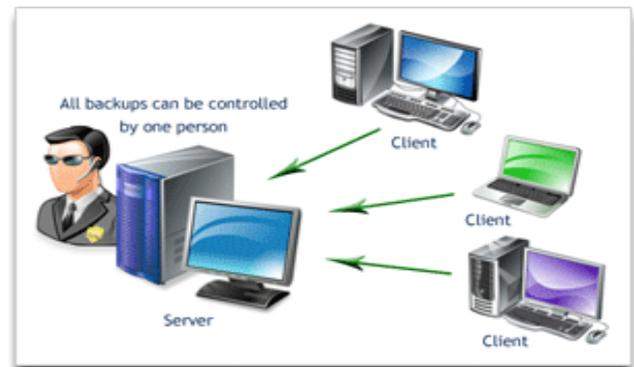


Fig.3: Client Server operation

C. SNMP Protocol

Simple Network Management Protocol (SNMP) is used for exchanging information in the middle of hosts in a network that contain network monitoring software. This is the most widely used protocol for organization and monitoring of the network and include the below components [4] :

- Managed device: The node in the network that support SNMP and access to specific information.
- Agent: Software that is division of the observed apparatus. An mediator has entrée the MIB of the maneuver and consent NMS to interpret and engrave to the MIB.
- Network management system: An application on a system that monitors and controls the prospered devices finished the age SNMP commands[7].

SNMP data is composed or sent to a managed device, whichever by voting or using traps. Traps permit an agent to send statistics to an NMS about events on the device. The MIB holds evidence about the structure of the data on a device for administration. The MIBs enclose entity identifiers which is the definite finder for the changeable to be study because the apparatus or common on the apparatus.

D. Remote Desktop Monitoring

Remote Desktop Services is one of Microsoft Windows apparatuses to access a remote computer complete the

network. Only the user interface of the application is obtainable at the client. Any input is readdressed over to the remote computer over the network. At work, we use Remote Desktop a excessive deal. It permits us to login to a remote server to implement situation checks, deploy applications, troubleshoot problems, etc. We too custom remote desktop often when we do WFH (work from home).

3. Conclusion

We have presented a development of network monitoring system. This is the benefits and established how necessary network monitoring is on a network to properly administer and maintain it. Without monitoring, a network is a black hole and faults can go unnoticed for extended days of time. This is shown that the greatest standard NMSs that are used today to monitor networks have a number of limitations and issues that prevent them from provided that full testing coverage and noticing every fault.

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