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Remote Desktop Controller

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Abstract: *As well all know that, Computers is essential part of our everyone's life. In all the private and public sector computers is widely used as well as intercommunication purpose. For all these different purposes networking or network has become the magic word. Today, lots of information and resources are shared all over the world through the network. The buzzword or the revolutionary term originated from this is global network i.e. Internet. But along with all the advancements and developments, the danger of misusing the network has also increased. The main objective behind development of "Remote Desktop Controller" to build a server application that allows to view or even control the desktop session on another machine that is running a compatible client application, with the efficiency to provide the real time information about the remote machine.*

Keywords: *Remote Desktop, Remote Network, Desktop Controller.*

I. INTRODUCTION

Remote Desktop Controller is a client/server software package allowing remote network access to graphical desktop. This software enables you to get a view of the remote machine desktop and thus control it with your local mouse and keyboard. It can be used to perform remote system control and administration tasks in Unix, Windows and other assorted network environments.

This software requires a TCP/IP connection between the server and the viewer, which works on LANs. Each computer has a unique IP address and may also have a name in the DNS. User will need to know the IP address or name of the server when a viewer wants to connect to it. The initial handshaking consists of Client Initialization and Server Initialization messages. When the connection between a client and a server is first established, the server begins by requesting authentication from the client using a challenge-response scheme, which typically results in the user being prompted for a password at the client end. The server and client then exchange messages to negotiate desktop size and pixel format to be used.

The server is designed to make the client as simple as possible, so it is usually up to the server to perform any necessary translations. For example, the server must provide pixel data in the format the client wants. Each desktop is like a virtual X display, with a root window on which several X applications can be displayed. Servers mirror the real display to a remote client, which means that the server is not 'multi-user'. It does, however, provide the primary user of a PC with remote access to their desktop. The server processing includes retrieving the pixel information and sending it.

The input side is based on a standard workstation model of a keyboard, and multi-button pointing device. Input events are sent to the server by the client whenever the user presses a key or whenever the mouse is moved. It also requests for all the possible specific parameters that the server can handle, for instance the color mode, pointer events and so on.

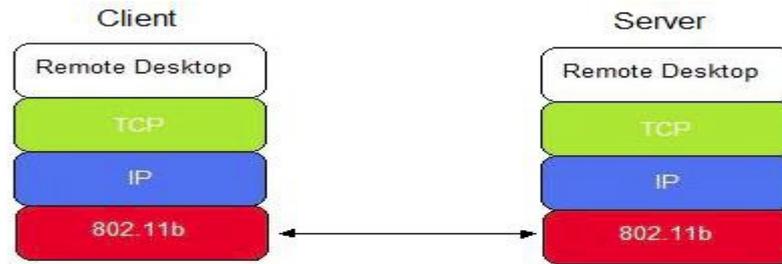


Fig.1.TCP/IP stack on a typical remote desktop scenario

II. LITERATURE SURVEY

2.1 Protocols used

Proposed system demands use of both *User datagram Protocol (UDP)* and *Transmission Control Protocol (TCP/IP)*. The listing of available servers at the client side is implemented purely based on the concept of broadcasting packets to all the systems in the network. Selection of this protocol for implementing this feature is due to the need for connectionless protocol.

2.2 Networking Basics

A *protocol* defines the "rule of the road" that each computer must follow so that all of the systems in the network can exchange data. Computers running on the internet communicate to each other using either the Transmission Control Protocol (TCP) or the User Datagram Protocol (UDP).

2.3 TCP

TCP (Transmission Control Protocol) is a connection based protocol that provides a reliable flow of data between two computers. When two applications want to communicate to each other reliably, they connect and send data back and forth over that connection. This is analogous to making a telephone call. A connection is established when you dial a phone number listener answers. You send data back and forth over the connection by speaking to one another over the phone lines. Like the phone company, TCP guarantees that data sent from one end of the connection actually gets to the other end and in the same order was sent.

2.4 UDP

UDP (User Datagram Protocol) is a protocol that sends independent packets of data, called datagrams, from one computer to another with no guarantees about arrival. UDP is not connection based like TCP.

2.5 PORTS

Data transmitted over the Internet is accompanied by addressing information that identifies the computer and the port for which it is destined. The computer is identified by its 32-bit IP address, which IP uses to deliver data to the right computer on the network. Ports are identified by a 16 bit number, which TCP and UDP uses to deliver to the right application.

III. EXISTING SYSTEM

Ample options are there in now a day s operating systems it to execute applications at the remote end. The basic services used by these operating systems today promote executions of the applications at the remote end with just restricted access.

3.1 Problems with the Existing System

- I. Administrator is not having full control
- II. There is no provision to reboot or shutdown
- III. Supports only one remote command on the remote machine at the same time
- IV. Never gets the feeling that we are using the remote machine

2.2 Advantages and disadvantages of the existing system

Utilities like Telnet and remote control programs like Symantec's PC anywhere let you execute programs on remote systems, but they can

be a pain to set up and require that you install client software on the remote systems that you wish to access. By using this users can save time by accessing data from remote systems. But using this all the users are not able to access the desktop of the remote machine The user will never get the feeling that they are working in the remote machine. Other problems are- Administrator is not having full control over the systems in the LAN. There is no provision to shut down or reboot remote system. There is no way to use the processor of the remote machine directly.

IV. PRAPOSED SYSTEM

The proposed system will allow the system administrator to use or to remotely control the other systems through a simple application. The administrator can get the configuration of the remote system from the server system itself using this system. This system will overcome all drawbacks and limitations of the existing system .This system to leverage the existing technology and utilize them in a new way. This proposed system will exist in the distributed environment.

4.1 Objective of System

1. The system will help in viewing the desktop screens of other system.
2. The system will enable to control the mouse of remote system, taking control of the whole system.

4.2 Flow of System

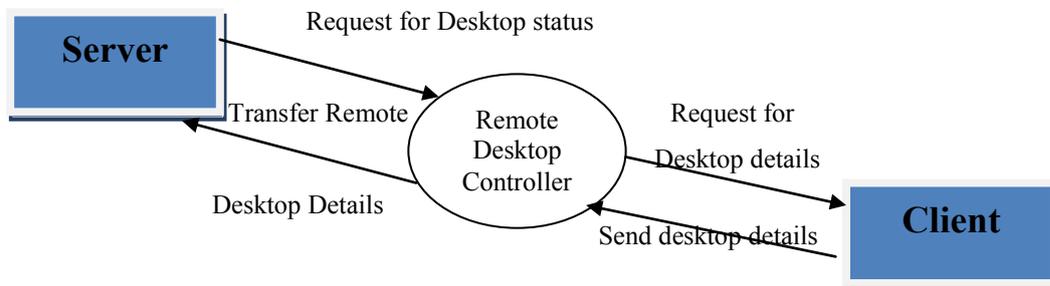


Fig.2.System Flow

System Architecture

This paper designs remote monitoring (management) system using a network protocol. The proposed system architecture is as follows

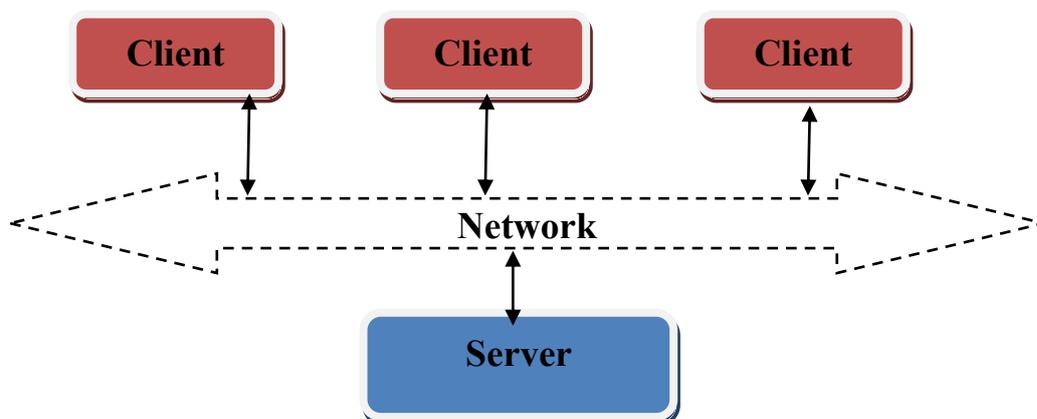


Fig.3.System Architecture

The proposed remote management system is divided into a server functions and client functions. The server function enables you to manage the client system remotely by specifying a controlling system. Server function has remote management capabilities for managing the target (client) system.

CONCLUSION

In the present generation systems, there is a need for the administrator has to go all around the network in order to terminate any system that is left non-terminated. The administrator has to take all the trouble of going to a particular system to access a file that is needed by him. In order to get the system configuration details of any particular system, the administrator has to take the trouble of going to that system for obtaining the information. The proposed remote management system is divided into a server functions and client functions. The server function enables you to manage the client system remotely by specifying a controlling system. Server function has remote management capabilities for managing the target(client) system.

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