Virtual Communication Network

Yash Hardia[1], Mr. Vishal Sharma[2]
[1]Dept of CSE
[2]Asst. Prof., Dept of Computer Engineering
[1, 2]Swami Vivekanand College Of Engineering, Indore, Mp

Abstract- *This paper is based on the process to access the remote desktop of computer system using desktop computer system. This process will be carried out using Wi-Fi Network. A user will be able to access and manipulate the remote desktop of computer system using IP address provided by the network. There are several functions provided to quickly access the desktop of computer system. Also user can access desktop computer system monitor browser of remote desktop. It handles computer system camera, messages, music player and provides live images to browser. It supports various platforms like Windows, mac, Linux etc.*

I. INTRODUCTION

Now, a day's people used to have smart system which provide us many facilities than earlier ones. In this paper, we describe the system which can provide access to remote computer within the Wi-Fi network and provide features like desktop access, viewing, accessing file. This paper describes desktop application design to control the remote desktop. Desktop application provides various packages for networking and it also provides high performance for desktop cellular computers. The security is maintained by providing IP address for authentication. In this system, user also perform reverse process for accessing desktop computer phone on browser of remote desktop condition that must be followed are that version of desktop computers are similar. In this system multiple computer system are access this application on single browser but computer device must have Wi-Fi and browser. By using IP address of desktop computer phone it connects multiple computer system using server and access a single browser. This remote access application that should be simple to set up, easy to use and free for commercial use. The scope of this system is within Wi-Fi area. This system will provide mobility for users for controlling their computer desktop over internet. This paper focuses on the control of desktop platform. This platform is open source. Limitations of the system is we have to access any network according to the network permeation we can access wifi network as well as we can implement this system on lan man and wan but the speed of transmition is sufferer due to synchronization issues.

II. SURVEY PREVIOUS WORK

In the scope of remote control there are several projects and initiatives designed to allow remote desktop control via android phone [5]. For instance, we have software called "Team Viewer" which is a computer software package for remote control, desktop sharing, online meeting, web conferencing and file transfer between Computers .Versions are available for the Microsoft windows, OSX, Linux, Android, WindowsRT, Windows phone operating system. While the main focus of this application is remote control of computers, collaboration and presentation features are included .Team viewer can be used without charge by non-commercial users and business premium. Other point to be considered is remote visualization mechanism that are useful for achieve remote display of other devices. The most popular system designed to perform a remote control of devices is Virtual Network Computing. This system was design to access the desktop in mobile devices. This paper focuses on access of multiple computers using android phone. So whatever the existing system was there they were trying to access a single desktop. That means one to one relationship was there. Only one machine would be controlled by the android phone. But now this paper enlists the process how to access the multiple computers through networking or Wi-Fi. This paper presents a proposal that covers this area of interest. The proposed platform is providing openness [5]. The VNC system is compound by client and server where the client is remotely connected to the server and send request to server to retrieve the update of remote controlled devices. The server side tracks and encodes display updates and the client side decodes and renders the update received. .

III. EXISTING SYSTEM

The existing systems are potentially good system which allows us to remotely connect to the machine and access their respective desktops. But they have some limitations. They are listed below [1]. 1. One of the application is based on central server, where client and server are connected to the central server. Here the application area is executed on central server. Because of

this, the speed of operation is low and the whole system is depends on central server. 2. Another application is controlling desktop from a android phone. But the system uses RFB protocol which is slow protocol. Because of this working of this application is slow. So because of this drawback we are concentrating on proposed architecture.

IV. PROPOSED METHODOLOGY

It describes architecture for remote controlling based on desktop computer phones. There are different types of possibilities to establishing connectivity between the target PC and computer client such as USB interface, java socket and desktop debug bridge client each of them has its own consequences describes architecture on remote controlling based on Wi-Fi.

1.Following fig1 shows architectural representation of connection in that user interface is client side desktop computer phone. For connection to the remote desktop user needs IP address and port number provided by network. After establishing the connection between desktop and computer user can handles the desktop using mouse also use keyboard for inputting text.

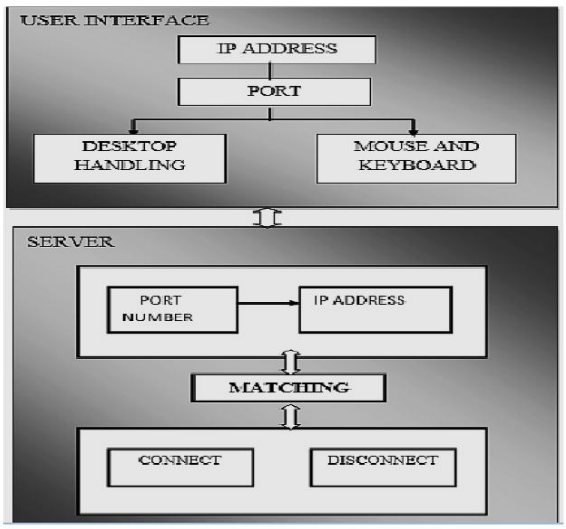

Figure 1: Architectural Representation of connection

Server interface shows remote desktop on which if port no and IP address matches with computer phone then connection is established. The sever interface uses Robot class for handling the hardware interface. This class is used to generate native system input events for the purpose of test automation, self-running, demos and other application where control of the mouse is needed. The primary purpose of robot is to facilitate automated testing of java platform implementations.

2.Client interface uses nano http server for accessing computer device on remote desktop.it is lightweight http server designed for embedding in other applications.it has been released as open source and free software. Only one java file and java 1.1 compatible. Persistent connections support allowing multiple requests to be served over a single socket connection.

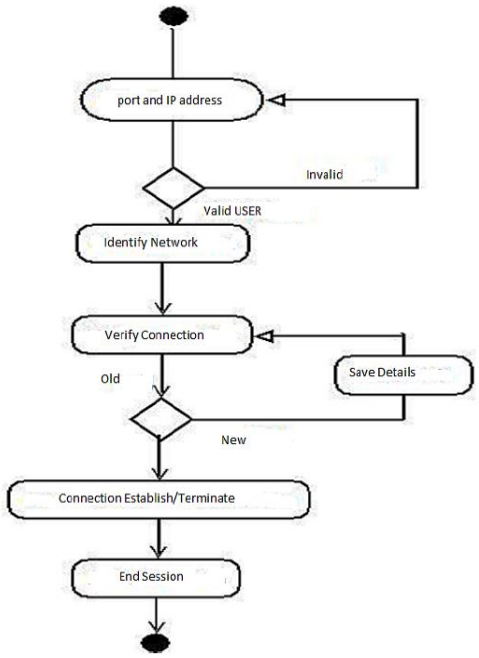

Figure 2: Activity Diagram

Fig.2 shows activity's performed in system. IP address and port number is must for establishing connection between client computer and remote desktop. If IP address and port number is incorrect then connection is not established and client is invalid then control goes to server interface for reentering the IP address and port number. If port number and IP address is correct then network identified the user is valid and connection is established between them. Client can updates the information in files and saves this details. After accessing the system client ends the session.

3. Design Of Proposed System In this system there is two main modules and some sub modules. Each module describes its functionality and designing of the system. Following are two main modules: A .Accessing Desktop: This module describes the accessing remote desktop through desktop computer phones. We need network for accessing remote desktop through desktop computer phones. In this we have following sub modules:

1 Text inputting ;This sub module describes about inputting of text into any type of text document. Using keyboard of desktop computer phone user can inputting the text into text document. .

2 Viewing; This sub module describes viewing of particular area. It means user clicks on any type of document and views the particular document.

1. B.Sharing : This sub module describes about multiple computersystemcan share or access single remote desktop.
Experimental Outcome: In experimental results, it shows the actual output or the result of the remote desktop access through system and vice versa. Following table shows input given by the user and corresponding output provided by the system to the user.

Table 1: Inputs and their Corresponding Outputs

User inputs	Output
IP Address, port	User login to the system and connection is established.
User can move the cursor on mobile device	Position of Cursor is change on desktop
User can click anywhere on the desktop	Operation performed on desktop
User start the server of android mobile on reverse process	Browser of desktop provides live images
User click on music player of desktop browser	Access the music's of mobile phone in browser of desktop

V. CONCLUSION

We can use this system in colleges for sharing the remote desktop by student during practical's. Suppose we deploy any application to any non-technical person & if the problem is arises then at that time it is not possible to go that place immediately. so in such case we simply tell him to on the hotspot & click on Connect button, then we can easily access persons laptop. So it saves time , money charge etc. As it supports multiple connections it can be used effectively for collaborative work. It can be used for educational purposes for example students in a distributed group can view the computer screen which is been manipulated by the instructor .It is remote access app should be simple to set up, easy to use, and free for noncommercial use. User can access remote desktop easily using desktop computer system and vice versa. The set up process is simple, taking roughly few minutes and little technical knowledge. it supports any operating system like windows, mac, Linux and blackberry etc. This system can be used for commercial or noncommercial purpose. It is open source platform. Multiple desktop computer system can access the single remote desktop. it provides high performance and provides better security using IP address provided by network. The system doesn't require any complex software so it is easy to use and cost effective.

REFRENCES

[1] www.theverge.com/2014/4/16/5621310/google-launches-chrome-remote-desktop-for-android
[2] www.google.com/serch?q=remote+desktop+access+through+android+phones&client=ms-oprea miniandroid&channel=new&hl=en&gws_rd=cr&sa=X&oi=image_result_group&ei=PdLxVNXECcO1sATly4DQCg&ved=isch
[3] www.en.m.wikipedia.or/wiki/NanoHTTPD
[4] www.nanohttpd.com
[5] www.socketprogramming-in-java
[6] www.academia.edu/edu6866035/Remote_access_desktop_application_using_Remote_frame_buffer_Protocol
[10]VNC based remote desktop access through android mobile phones.pdf