



Remote Desktop Access Through Android Mobile

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ABSTRACT— *The proposed system represents the process of accessing desktop through Android mobile phone. It requires mobile with Android operating system with wireless connection. User can access the desktop and manipulate the desktop, capture the screen, zooming and panning, transfer the files through any part of world due to network connection. Operations will be processed on the CPU of PC and output will be send to the mobile. Utilization of the files by accessing the information from Mobile to PC. The main aim of the application is to remotely access and control different applications connected through internet. On Mobile applications retrieves the required data information in certain time interval by connecting with the web server.*

Keywords—Local Monitoring, Wireless Network, Mobile Terminal, Remote Computing, Remote Desktop, Android Mobile Phone.

1.INTRODUCTION

World is contracting with the growth of mobile phone technology. As the number of user increasing day by day, facilities are also increasing. Starting with simple regular handsets which were used just for making phone calls, mobiles have changed our lives and have become part of it.

Nowadays phones are used worldwide and provide many applications which were earlier provided only by desktops or laptops. These Smartphones has brought a big change in technical field. Almost all the system uses the VNC architecture for communication between cell phone and remote desktop. Virtual network computing is a graphical desktop sharing system providing control via network.

In today's era the Smartphones based on android platform plays great role in the technical field, which also provides various applications. The main aim of the application is to remotely access and control different application connected through internet. The user installs this app on android mobile phone and servlets are invoked on remote desktop.



2. SYSTEM ANALYSIS

2.1. Proposed System:

Most system uses the VNC architecture for communication between cell phone desktop. VNC (virtual network computing) is graphical desktop sharing system providing remote control via network. VNC is client-server application, where server is machine which is under control i.e. remote desktop and client is controlling/supervisor device i.e. android phone. VNC server and client communicate using a protocol called RFB (Remote Frame Buffer). RFB is based on simple graphics primitive “Put rectangle pixel data at a given position”. VNC system is based on RFB [2] protocol to transmit all the information between connected devices. The first iteration between the RFB client and server involve a negotiation to a format and encoding with which pixel data will be sent. Controlling machine is responsible for viewing a shared desktop, capturing and converting all user activity into the RFB protocol [3] messages. On server side, it must interpret all events received from client and respond to graphics screen update request by sending back a desktop view to connected client.

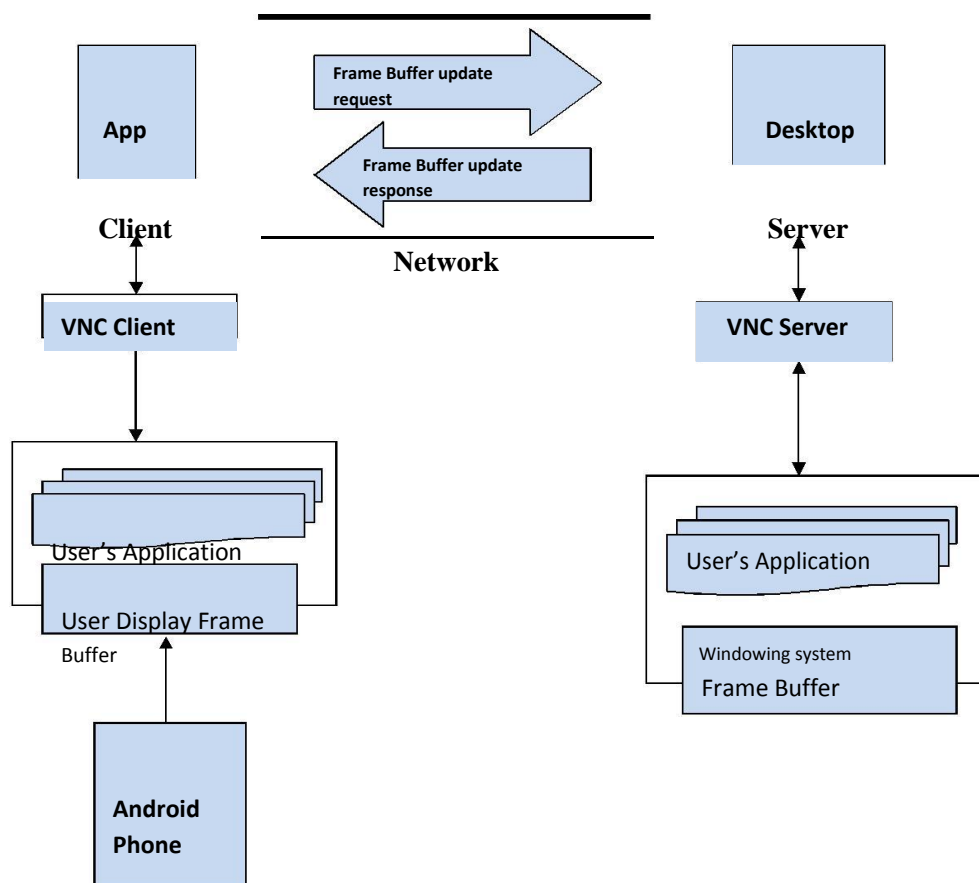


Figure 1: VNC architecture based mobile access computer



2.2. System Architecture:

The Figure 2 show the overall architecture of the system which include the android phone , one server machine and LAN which is also connected to the server machine. In this architecture we will having operation which will execute with the android phone and also with the server machine the process of architecture will be started like first start the server application which will be installed on the machine which also in the same LAN. The server application start up collecting list of client machine started list out their name is server application. We have to start the client machine which will automatically start client application and enable client application to take over the control by server. So by using server application we can list out the process which are running on the client, we can fetch a particular data file and see the text contain of that file, we can create new process as new task and we can kill the process also. By selecting particular client we can send the message to that machine which will then displayed on the client application. After it start the android app, if we are using static IP address to the server machine then we have entered the IP address and we can access it using the internet also. If we are not using static IP address then we have to use the server machine which will capable of having Wi-Fi. So after starting the app on phone it will ask for IP address of server and password key. After successful login it fetches the list of the client machine from server and shows on screen. The user will proceed in application by selecting a particular client and do the same operation which available in server application.

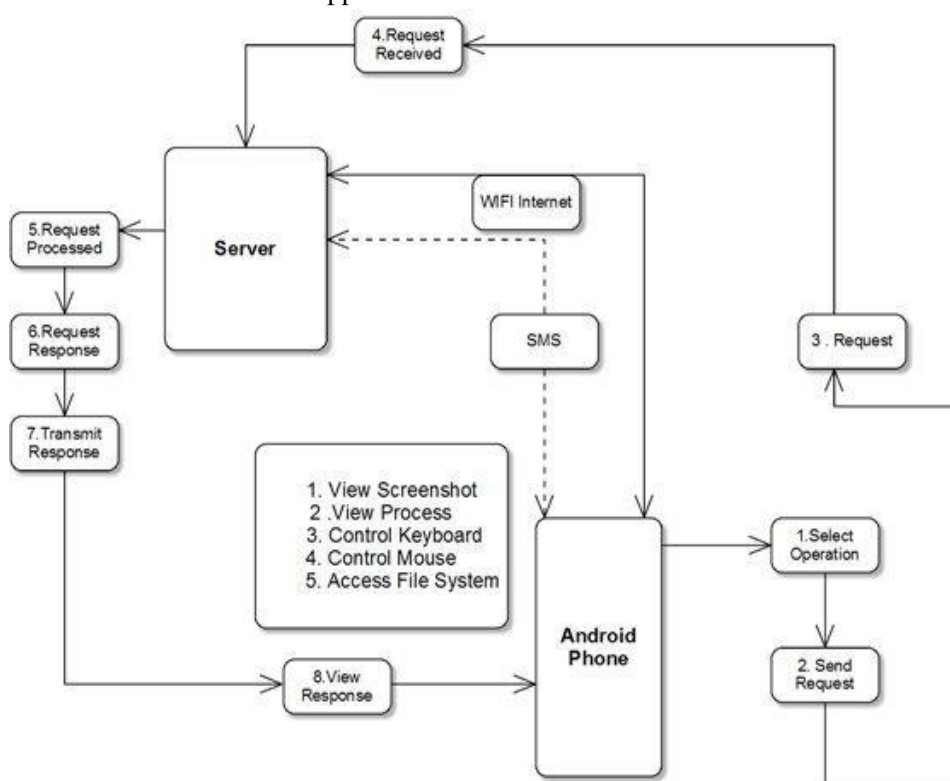


Figure 2: working of architecture



3. Modules

3.1. Desktop Sharing:

The remote screen will be shared in this module. This can be implemented with the help of VNC protocol. This module deals with the authentication and connection between the client and server. The login contains IP address and password which on verification by server will provide the authentication to user. The IP address of the server and the password transmits the first frame after handshaking is done. The login Must compare a client-supplied the password to a password stored in a user management system.



Figure 3: Authentication



Figure 4: Desktop access

3.2. Panning and zooming:

The user moves the viewport horizontally and vertically. The viewport can be zoom out to browse its contents and zoom in to see the display in greater detail.

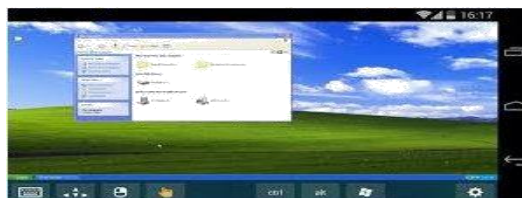


Figure 5: Panning desktop



3.3. Over viewing:

Overview mode is provided for displaying the whole area of desktop screen on android mobile phone and to choose a specific area of screen. When user turns on this mode, the aspect ratio is changed so that whole area of desktop screen fit on android phone. This helps the user adjust the view port to the desired area of desktop display. [1]

3.4. Pointing and clicking:

The user can move the pointer on the remote desktop display vertically and horizontally by pressing keys. Dragging can be executed by pressing a key to specify the start of the dragging operation then moving the pointer and finally pressing the same key to indicate the end of the dragging operation.

3.5. Inputting text:

Text is entered and edited locally on the android phone using the built in text input capacity of the android mobile phone.

3.6. Shortcut Assignment:

Common GUI operations, such as pressing GUI buttons and opening pull-down menus become very tiresome when only basic operations are provided.

4.APPLICATIONS:

1. You can access data from anywhere and everywhere.
2. It is more beneficial when you forgot critical file at home.
3. It can be used effectively for collaborative work. Example- It can be used for educational purpose. For example-Student in distributed group can view a computer screen which is been manipulated by instructor.
4. Student can access all their important files and document stored at the university computer without physically present anywhere near the campus.
5. If you are at work and want to keep an eye on your home machine whether its keeping track of a download or making sure someone else isn't trying to use it.
6. It allows an employee to work from home by making available the same set of software and which are provided at office.



5. CONCLUSION AND FUTUREWORK

This application will provide assistance to the system administrator in monitoring the tasks and also provide file transfer. Next step will be implementing this system over internet. The same RFB protocol will be used for the data transfer. The VNC architecture will be used for implementation of the system. Lastly, the system must implement a security system based some security mechanism like encryption, password, certificates, etc. in order to insure the data exchange and to avoid intrusion.

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