

January 2016

CONTROLLING AND MONITORING OF REMOTE HOST

AKSHAY P WANJARE

*Department of Computer Engineering, Rajarshi Shahu College of Engineering., University Of Pune, India.,
wanjareakshay40@gmail.com*

SUYOG T TAPKIR

*Department of Computer Engineering, Rajarshi Shahu College of Engineering., University Of Pune, India.,
suyogtapkir1142@gmail.com*

MAHESH R KALE

*Department of Computer Engineering, Rajarshi Shahu College of Engineering., University Of Pune, India.,
maheshkale17@gmail.com*

CHETAN S PATIL

*Department of Computer Engineering, Rajarshi Shahu College of Engineering., University Of Pune, India.,
chetanpatil.p@gmail.com*

Follow this and additional works at: <https://www.interscience.in/ijcct>

Recommended Citation

WANJARE, AKSHAY P; TAPKIR, SUYOG T; KALE, MAHESH R; and PATIL, CHETAN S (2016)

"CONTROLLING AND MONITORING OF REMOTE HOST," *International Journal of Computer and Communication Technology*. Vol. 7 : Iss. 1 , Article 13.

DOI: 10.47893/IJCCT.2016.1336

Available at: <https://www.interscience.in/ijcct/vol7/iss1/13>

This Article is brought to you for free and open access by the Interscience Journals at Interscience Research Network. It has been accepted for inclusion in International Journal of Computer and Communication Technology by an authorized editor of Interscience Research Network. For more information, please contact sritampatnaik@gmail.com.

CONTROLLING AND MONITORING OF REMOTE HOST

AKSHAY P WANJARE¹, SUYOG T TAPKIR², MAHESH R KALE³ & CHETAN S PATIL⁴

^{1,2,3&4}Department of Computer Engineering, Rajarshi Shahu College of Engineering., University Of Pune, India.
E-mail: ¹wanjareakshay40@gmail.com, ²suyogtapkir1142@gmail.com, ³maheshkale17@gmail.com & ⁴chetanpatil.p@gmail.com

Abstract- In today's world, the role of remote access is changing dramatically. So accessing network remotely is an important issue. The proposed system allows administrator to access network from anywhere at any time. Administrator user can control and monitor the network using RFB (Remote FrameBuffer) protocol. Administrator User can run server side commands using android mobile phones. Administrator User can access desktop within the Wi-Fi- rang. Virtual Network Computing(VNC) is, in essence, a remote display system which allow to you to view a computing 'desktop' environment not only on machine where it is running, but also from anywhere on the network. The system can extend the limit rang of accessing organization.

Keywords- RFB, Wi-Fi, Monitor, Control, VNC, Remote Access, GSM modem.

I. INRODUCTION

Many recent Internet applications have focused on giving users access to resources locally in their computing environments. VNC (Virtual Network Computing) provides access to home computing environments from anywhere in the world. Virtual Network Computing is a promising technology in distributed computing environment. As VNC provides great flexibility and convenience in a mobile computing environment a lot of attention is given to it in recent years. One can use VNC to access his/her personal PC desktop from any office on campus and from around the world.

As an administrator you would like to control certain aspects of machines sitting remotely. This project is based on a concept of administrating remote machine from a remote location. To help troubleshoot a remote computer, or to access and administer server machines without leaving his own computer VNC be can used by a system administrator. By using this application user will be able to view the screen on a remote PC. System can get the access of remote server by executing commands of the Remote Windows system on mobile. One can be able to have the Graphical access of the remote system on mobile. User can control the Windows system by mobile through WI-FI. He/she will be able to send the files from mobile to Windows system.VNC are small and simple.

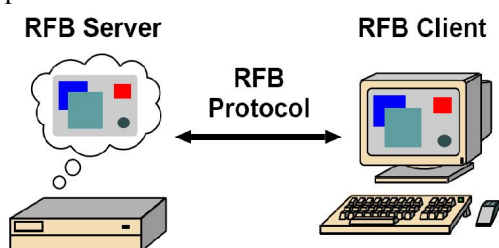


Fig. 1 RFB Protocol

It has the advantage of being fully cross-platform. We propose a new approach which extend range limit of networking organization by monitoring and controlling desktop PC's by using RFB(Remote Frame-Buffer) protocol. Due to accessing network remotely cost and time will be reduced. All the communication between mobile and Windows system will be secure. Communication between mobile and system will be through WI-FI. Monitoring includes IP change, Password change, Access desktop (Within Wi-Fi range), Login user, Get system properties. Controlling includes Access denied, Backup, Restore, File transfer.

II. PROPOSED SYSTEM

Allow to extend the range of network by using mobile network. This network infrastructure enables remote devices to communicate over large distance. Secure data transmission using IMIE number for preventing any third party access. Allowing monitoring and controlling system remotely.

Components of Network Architecture:

Active server:

Active Server is present with GSM modem. In network active server is important entity. Active Server acts as host in network. It will be notified whenever any activity done like changing IP address or password change. Then through GSM modem which is attached to server, server will communicate with mobile. The message for file transfer or backup which is send mobile is first received by active server and then action will be performed. Administrator user can Control and Monitor clients using android mobile phones.

Agent

Clients present within the network are called as Agents. Active server will monitor all the actions

performed by agent. Agents can make requests to Active Server for performing its tasks like file transfer, backup, restore.

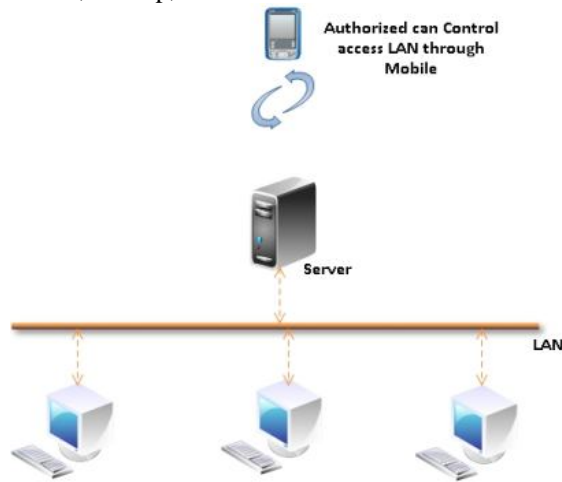


Fig. 2 Architecture of proposed system

WIFI Enabled Device

It is necessary for every Mobile device to register on active server. Then within WI-FI network accessing desktop of client can be done. Notifications can be sent all over the world.

System has many advantages like it extends the range of network by using mobile network. This network infrastructure enables remote devices to communicate over large distance. There is secure data transmission using IMIE number for preventing any third party access. It allows monitoring and controlling system remotely.

III. CONTROLLING AND MONITORING PROCESS

Registration

The new clients have to register with server. They will register themselves to the Active Server using user name, password and Mobile Number.

Login

All users have to be login using correct user name and password to access the network.

Change in IP or Password

After successful login any client can change system configurations like modification in IP or change in password. This will be notified to the administration user using SMS.

Controlling the system

Administrator can take corresponding actions when he gets notification. By giving particular IP address he can shut-down, log-off, make PC stand or deny access. Administrator can also able to transfer file from mobile to PC, can also able to take Backup, Restore using single SMS system.

Monitoring the system

Within WI-FI range Administrator user can able to access the Server or Client Desktop remotely using Android phones.

IV. SYSYTEM FEATURES

Access the desktop of remote machine

Administrator can see activities being done on machine, because he can access the remote machine and can view process running on machine.

File Transfer

Administrator can transfer file by sending the message to server which has modem connected to it if file transfer is required between two clients,

Notification on mobile

Notification will be sent to mobile so that administrator will be aware of changes to system if any user changes password or changes ip address of machine. Notifications can be send through GSM modem. Notification will be sent to administrator when user removes LAN cable of machine.

Controlling machine

Administrator can set shut down, restart or logoff the machine with single message through registered mobile. So that even if user forgot to switch off machine administrator can easily manage. Controlling also includes file transfer, backup, restore, accesses deny.

Monitoring machine

Administrator can monitor the clients processes remotely. Administrator User can access the active server's and agents desktop using android mobile phones. Monitoring also includes IP change, password change, access desktop, login user, get system properties.

Backup

Administrator takes backup of one machine to another machine with single message through registered mobile.

V. CONCLUSION

Proper authentication with user-id and password is provided with proposed system. It has a secure IP address system. It is able to monitor any changes into client remotely. It can control and monitor certain action performed by clients. This makes our proposed system better, efficient, platform independent and secured than existing system. By connecting at different ports user can easily monitor one or many systems. It will reduce memory cost since file can be viewed at remote computer's hard drive. File transfer between the two or more remote computer is done easily. Due to accessing network remotely cost and

time will be reduced. Administrator user can receive notifications through SMS via GSM modem. Administrator user can perform many tasks using single SMS system like file transfer, taking backup, restore, shut down, log of. Administrator user can control and monitor the network remotely within Wi-Fi range using android mobile phone.

REFERENCES

- [1]. Chiranji Lal Chowdhary “Design and Implementation of Secure, Platform-free, and Network-based Remote Controlling and Monitoring System” pp. 195-198 IEEE 2012.
- [2]. Adam Skuski, Bartomiej Swiercz, “VNC-Based Remote Control for Symbian OS Smartphone” pp. 171-174, June 2009 .
- [3]. C. H. Wang, F. Teng, Y. F. Wang, and G. C. Ma, “Web-based remote control service system”, IEEE Trans. International Symposium, vol. 1, pp. 337-341, 9-11 Jun. 2003.
- [4]. Richardson, T. “Virtual network computing” pp. 471-476, IEEE 2004.

