



Mobile Based System Control

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ABSTRACT

The project primarily focuses on protection of connection establishment at the primary level. Consider a LAN setup with a server and all clients connected via mobile phone to the administrator. Using the mobile phone, the administrator can track and manage the client's actions in a LAN; for example, a small text file residing in any client or server machine can be opened in your mobile. This product is cost-effective. It will provide remote control and monitoring of the LAN network, and enable network security against intrusion in the absence of an office administrator. Consider a WIFI setup with a server machine and all clients connected via mobile phone to the administrator. Using the mobile phone, the administrator will track and manage client activities in a WIFI; such as opening a small text file in some of the servers or client machines on the mobile phone. It's a cost-effective fix. It will provide remote control and monitoring of the WIFI network, and allow network protection against intrusion in the absence of an office administrator.

Keywords: Android, Feasibility, UML diagram, Wireless Media, Remote Monitoring & Control, AT Commands, Password Security, Android based Mobile phone.

I. INTRODUCTION

Day by day the usage of mobile phone is increasing rapidly. We have the ability to control various activities through the mobile phone. Our project aims to monitor and control the network from anywhere regardless of distance from our wireless handheld device, i.e. the cell phone. Consider that a LAN is installed at the office. You want to know the LAN status when you stay at home. You can do so by storing and executing the project in your mobile phone. Wireless devices are most commonly used in this generation of cell phones and these wireless devices are widely used in every part of our daily life, but remote monitoring of networks via mobile devices remains a challenge. Project based on Mobile Device Control app is an attempt to make this illusion a reality. That is where this project's idea rests. Let's consider a LAN connected to the server machine and all clients are connected to the administrator with the help of mobile devices; for example, a small text file residing on any server or client machine can be opened on your mobile phone which is controlled and monitored by administrator. It is a cost-effective solution that offers remote control of the LAN network and allows for protection in the absence of an office administrator.

2. PROPOSED SYSTEM

Proposed system, with the following functionality:

- Offers useful wireless connectivity.
- It is cost-effective because our application s doesn't require GSM modem.
- The area of the services covered is more than the current system.
- Compared with this system , the current system requires more time to establish data connections.
- The commodity would be less serviced.

3. SYSTEM OBJECTIVES

The features the proposed system monitors and controls are as follows:

Net View: Get a list of all clients in the LAN in your cell phone. Keep estimating to check the PC's latest status every time. When the PC goes offline the name of the PC is removed from the list.

Process List: Process list provides the list of all processes which will be running on the remote machine.

Read: Helps from mobile device to read the directories, files, drives of any client computer or server computer.

Open File: Any size of text file which resides in any of the server or the client machine can be opened in your mobile phone.

Broadcast messages: Broadcast messages to Server, clients from cell.

New File: Supports in creating a new document or the new file in the cell phone and save the same in either the client or server machine.

Activate Process: Activate various processes either in the client's machine or on any of the servers.

Kill Process: Kill the desired processes on either the clients or servers.

Shut Down: The client machines are shut down by using mobile phone.

4. ARCHITECTURAL DIAGRAM OF PROPOSED SYSTEM

The request is sent to the server from the administrator, via his mobile phone. Then server understands which administrator needs to track and manage the client computer. GUI-based application in Android phone is given to the administrator to send command instantly. Server sends commands such as start process, shut down process, destroy process, build, delete file, Process List to client.

The contact is achieved via the Android service provider through the cell phone, which helps to connect with the server and interacts with the clients. All the clients are administrator managed and monitored. Even at the remote place the LAN is controlled by the administrator through his mobile phone. The load on the LAN is also checked by the administrator. Use cell phones, customer will communicate to admin if the sever fails in this model.

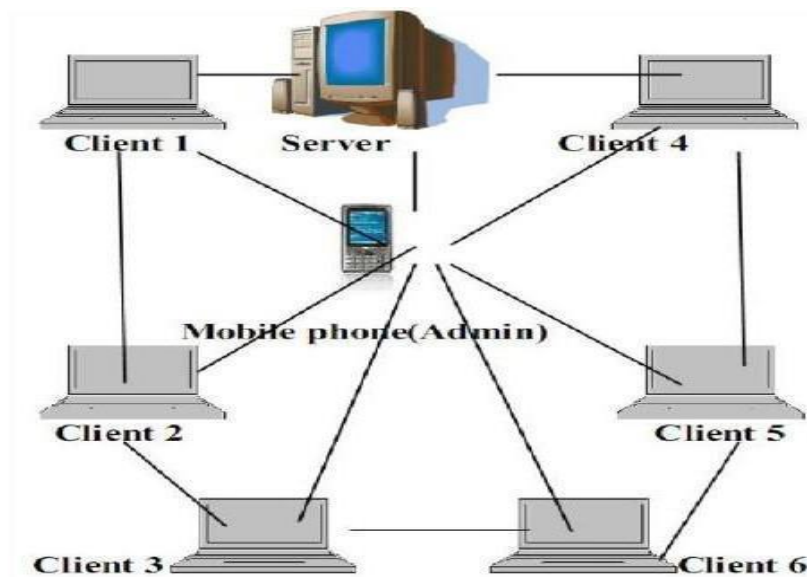


Fig 1: Proposed System Architecture

5. INTERFACES

Hardware Interface

Mobile Devices: The mobile devices, such as smart phones and LAN network are supported by the external hardware interface.

External Storages: In order to support automatic archiving capability, with external hard-drives the product will support transparent connections Software Interface

Operating System: Operating environment involves minimum software and hardware requirements required by the system and here product works using Android 2.1.

Integrated Commercial Components: In this the system will interact with web application programming interfaces (API) of third party services, such as HTML5.

6. FLOW OF THE APPLICATION

The key function is to access and track the network from anywhere irrespective of distance, from our wireless handheld computer, i.e. mobile phone. It can perform various operations such as transferring files, viewing processes and transferring messages. It can create write file, read file, copy file, delete file, email, display process and transfer document. When we open this application welcome screen will be displayed and then user can control LAN network via AT command or using menu driven commands. For example if the client wants to access the file from the server and he sends the request to the administrator. Then admin checks for file which was requested and allow the server to send the file to the client.

When the administrator finds that any user or client performs unauthorized device access, so he needs to shut down the computer of that client, so he simply does it by shutting down the AT command. When this instruction is received from admin the client 's computer will be turned off automatically. The SQLite Database is used for the storage purpose which helps in storing data. In this it has the clients as well as administrator details. Any unauthorized person cannot handle a LAN.

The Following Figure shows the flow of the application.

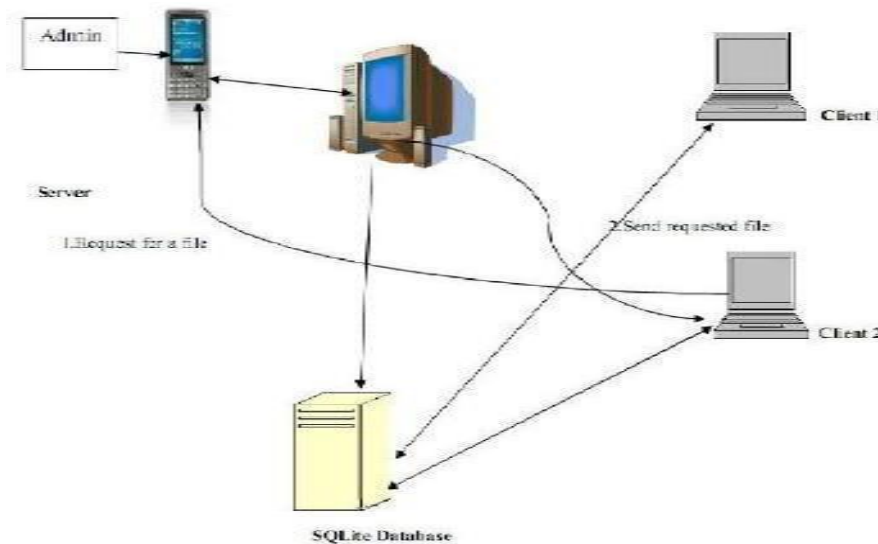


Fig 2: Data Flow Diagram Of the Application.

7. FUTURE WORKS

The future enhancements in the application include LAN monitoring and control whenever the administrator is out of station. This application reduces the time as well as efforts of administrator.

8. APPLICATIONS OF PROPOSED SYSTEM

LAN monitoring at the University/college level can be used for monitoring, logging and retention of network packets that traverse university networks. The goal of this project is to maintain confidentiality, integrity availability of the university network infrastructure and information assets.



LAN monitoring at the office level can be used to monitor the office LAN by the administrator at any time if at a particular point he/she cannot be present there. He/she does not have to depend on any third party information regarding the LAN and can instead check the LAN status himself using his mobile. LAN monitoring at the malls is used to monitor all information of malls by administrator at any time if at particular time he/she cannot be present there.

CONCLUSION

The recommended approach is to implement Mobile Based LAN Monitoring and Control which will be easily interacting with the LAN for cell phone monitoring and control. This application can also be a great administrator source for colleges, corporations etc. This system communicates by means of standard protocol WAP.

ACKNOWLEDGMENT

We would like to offer our sincere thanks to our guide Assistant Professor Mrs Reshma B, Srinivas Institute of Technology. We do want to say thank you to Billion Hands Technology Pvt Ltd. For their support and direction.

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