SHORT PAPER ON VIRTUAL UPGRADATION OF MOBILE COMPUTING POWER

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Abstract

In the field of Information technology, remote access plays a vital role for many purposes. In most of the software applications, while accessing remote device we need internet connection and host couldn't do his work simultaneously until and unless remote connection is not over. In order to overcome this issue, we propose a system which will work on mobile tethering without the need of internet. In addition, the host execute various processes simultaneously.

Key Words : android, ad-hoc, process sharing, remote access.

1. Introduction

Smartphone is everyone's basic need i.e. everybody needs smartphone for their day to day life. Every user can't afford good quality smartphone but they can afford low cost smartphone. In low cost smartphone he can do limited processes at low speed. Also for some software needs high configuration processor and high level architecture.

When a user want to use a application in his smartphone then he has to share the application then take all needed data to use that application and then application s ready to use. This process takes more time for single use of application and it is wastage of time.

The solution for these problem is remote access where client remotely access host device using internet. Where both the PCs connect each other over internet and using RDP protocol and data transfer is done using TCP protocol for secure network. But why to use internet when both the devices are close to each other. We can create an Ad-hoc network to connect them and then remote access will take place.

Now a days when it comes to access remote devices or to view remote devices then there are many ways to do this but all this needs some improvements. In this project, we proposing a system which will access the remote device by using innovative technologies by overcoming all the drawbacks of current applications.

Section II describes the Literature Survey. Section III describes existing system. Section IV is about proposed system

2. Literature Review

Software	Connection Medium	Protocol	Platform	Share
Team Viewer	Internet	RDP	Android, Windows	Full Screen
Link Wire	Internet	PPP(Point to Point Protocol)	Android	Full Screen
Air Drop	Internet	Confidential by Developer	Windows	Full Screen
Screen Share One Assistance	Internet	Confidential by Developer	Android	Full Screen

The basic idea is that to make android as a server platform underline[1]. A technology used to mirror android screen and control it, WI-FI display (WFD) is used to connect two to run application on that server and clients can access that application without worrying about the hardware android devices to mirror the screen, WFD is the technology used to mirror screen in various devices through ad-hoc network[2]. Android uses virtual machine to execute application which specially design for mobile devices which is Dalvik VM and UI settings of app are stored in Res directory[3]. The wireless technique support users to make Ad Hoc network with smart device at anytime and anywhere. It also provide features like activity, services and many more[4]. Utilizing hardware accelerators in the screen content sharing is beneficial not only for performance, but also for power efficiency[5]. For smooth interaction higher frame rate is required. We can achieve this by updating the screen images at an higher frame rate rather than the regular 30fps[6]. One of the current approaches to this problem is executing the application completely on a resource rich server, thereby converting the client into a thin client. The client transfers only the events to the server[7]. In multitasking of apps we can resize them and relocate them on screen. Main threat of this system is attacks on UI like UI redressing, clickjacking, tap jacking, touch jacking, etc.[8]

3. Existing System

Currently there are many applications in the market today that have function of screen sharing. So the basic idea behind these applications is to mirror the screen or share the screen with the help of internet connection.

So every application in this scenario uses internet connection for connection establishment and screen sharing. Also when it comes to authentication it generates random password which is unique. During connection establishment time needed to connect two PC's will be dependent on the speed of the internet.

While accessing remote PC speed of processing and Graphical processing Unit also depends on speed of the Internet.

Fig. 1 : Architecture of Remote Access

4. Proposed System

The Proposed System overcomes the limitations of the existing system, and with improved and more functionalities.

The Proposed System Consist of host device and client device both of them are connected with the help of ad-hoc network, internet connection is not mandatory the host device will list the applications that the client want to run on his device.

The Client device will select the particular application he want to access on his device after that the application is selected it is started by the system in the host device , this application is then fetched by the internal sensors and drivers and transferred to the client device via the ad-hoc network and then the client may use the application.

5. Conclusion

We will develop an application which will share the background application of an host device.

Which will be used for remote access of host device by giving the host ability to perform its own task simultaneously.

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