### **Dual Booting Smartphone Using Linux**

Venkatreddy. Y

# ABSTRACT

Cell phone are getting indispensable and all and sundry measure upto it with computer. One get an advantage when integrate themas solitary one which make the can amalgamated constantly upgradede-device. One stand we can try to reach the next better thing whydon't user have and make it better. This paper puts forward thelatest intelligence advancementthereby in the field of technology. The Proposed System is based upon the latest feature in the field f technology. As everybody knows that the Day to day life isbeing more computerized and the phenomenon which is created in this proposed System is totally to explore the Advancement of the Smart phones. In this Proposed System customers have the facility to use their smart phone just like The Laptop withdifferent Operating System in builtin it. So his best use of smartphone will be done by the users. It is also called the Jailbreak of the Smart phone. All of these phenomena generally are done by Linux or say the rearrangement of the coding of the smart phoneoperating system is being rearranged byLinux. So the proposed system in this paper shows that the android and Windows already have boot in one phone and just work like dual boot operating system as the Laptop have its competence.

KeywordsLinux, Operating System Jailbreak, Advancement, Computerized

### I. Introduction

As per Introduction concern the Proposed system is being doneby simple coding and simple configuration used by user, it isquite being friendly like windows mobile because in this proposedsystem user can have fun with their windows mobile with fullycompatible to other Operating System at the eleventh hours. So if someone has the option to update at their own smart phonewithout purchasing new upgraded operating system so what is theharm? So the all customer need to full fill the basic requirementfor applying the upgraded operatingsystem like Android, Me ego,Bade etc. the Proposed system is implemented or sayexperimentedon HTC 6900(Vogue) which is already a windows compatiblemobile. In this system user simply install the boot file for thespecific operating system like the Proposed system used Androidand then install and make some small changes for make use it dual boot able Smart phone.

# II. Existing System

All the Mobile phone Company totally produce their product on the bases of their single boot able Operating System and beingmade some upgrade only on their supportable software's whichmakes more use of only of their own Operating System.

#### A. Disadvantage

The Existing System has a disadvantage that if the users want towork on Some File Which can only be executable or say which onlysupports another extension file that only is specific for particularOperating System file then Smart phones with single operatingSystem Defeat at this level. So this the basic Disadvantage of the existing system.

### **III.** Proposed System

The proposed System is worked on the bases of all that parameterwhere the smart phone can simply work like a small laptop havingdual boot able option in it. Here the smart phone simply Jailbreakit's own feature where all the regular feature of the smart phoneworks like as it is and the user can have the accessibility to use the dual operating system at the same time. So the full use of smart phone will be done. What the proposed system do, it takes a windows mobile cell phone and not only upgraded to the GoogleAndroid OperatingSystem but Also make it so the users makeit Dual Boot Between two Operating System. The basic purposeBehind this is that the use of Latest technology Having Old OneSmart phone. The proposed System is just be implemented becauseCell phone are getting moderated like mini Computer and eachone is just better one as previous but seriously everybody can'thave the budget to effort constantly upgraded version.

#### A.Advantage

The Basic advantage of this proposed System is those users havecompatibility with dual operating system without occupying another Smart phone, because more than one Operating Systemwill be successfully run on a Single Mobile Cell phone.

### IV. Design

As per Proposed System the design is being made very simplefor the user which the user can have easily make it accessible atany movement and if the user want to make it manually boot ablethen proposed system already make it as per need of the user. The design is basically make on the behalf of that, the cell phoneis windows mobile or the cell phone compatible for windowsOperating system. The cell phone also compatible with AndroidOperating System, to check this feature the proposed System willtell this in its Explanation paragraph. The design System willtell all about its function which is used when windows operating system was running and after making it compatible with androidoperating System it will show the all System will work as likewhen Windows operating System was running. Basically the

platform at which the windows operating system was working just similar like the after upgrading it into android operating system but with enhancement in it. The key feature of the design

System is as following:

1. No reliance on hardware buttons. This is a key design featurewhen running Android OS 3.0 on devices like a rooted Nookcolor.

2. Focus on task switching and background activity notification. The Design System is basically made for android operatingSystem which may work as like secondary operating Systemfor users. So on the behalf of that the design system is divided into four genuine parts, those are as follows:

- Designing for accessibility.
- Designing for responsiveness.
- Designing for seamlessness.
- For performance.

These all design system will make work android smart phoneconciliation.

### V. Analysis

The Analysis function of the overall of the proposed system is saythat the Accessibility of the cell phone after install dual boot optionwill enhance it accuracy regarding it's overall performance whileonly using Single Operating System such that Windows mobileOperating System. The Analysis is also be measured on the basis of that phenomena that called Performance, because the performanceafter installing secondary operating System such that Android willfully utilizes it's overall features. As day by day Android makes itupgrade and make more user friendly and also makes it many fieldbeneficial such as business purpose, multimedia, gaming, softwaredevelopment etc. after installing android operating system in it there will be no more con-figural area to make it much better useas it is also previously available.

# VI. Techniques and Algorithm Used

As per proposal requires some basic technique on the basis of thatit would be make it so much easier to implement this proposalin practical way. There has some kind of algorithm according towhich the overall performance of the smart phone will increase its compositionand destroy the virtual phenomena that cell phonecan't be dual boot. The best way by which the overall technique will govern is being following:



### Fig. 1: A Sample Smart Phone

To find the smart phone is compatible with android operating systems is or not just go with Google, it means

| xv6900 a | ndroid                          | Athen |
|----------|---------------------------------|-------|
|          | Google Search I'm Feeling Lucky |       |

Fig. 2: Google Search Compatibility for Android to Smartphone

### A. Android Compatibility

The first and most important rule to be implemented it into thisproposed system is that smart phone should be compatible withandroid operating System.Open Google homepage andtype

smart phone model and thenmake a space then type Android. Here for this proposed Systemuse Htc XV6900 (Vogue) and then after it make installation processfor the voguecell phone it will show user that the cell phone compatible for the android operating system or not? If it is compatible then make some procedure give below.

### B. Download the Content

The second step for downloading the operating system is beinggoverned by the all basicphenomena which are main and necessarycontent for this proposed system.



Fig. 3: Download Content Android to Smartphone

The base for this proposed system is say that is all about itsoperating System which has to be in supporting format. After allthis the content has being redirected itself and shows the latest version for downloading the content. That is shown below:

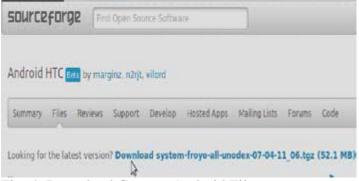


Fig. 4: Download Content Android File All the content is available at Souceforge website.

# VII. Steps and Procedure

The overall procedures are as simple as I would be used afterinstalling feature in it. The main steps for installation is beganafter downloading the operating system in user desktop orlaptop. The following steps and procedure are listed below:

#### A. Crating a Zip File

In the first step the user has to create a zip file in its own laptopor system which he/she used. Now after making zip file openthat zip file and select add option in it and add the path of that downloaded operating system which is downloaded for androidoperating system.

#### **B.** Unzipping File

In the second step, unzip that zip folder in the micro SD card ifhave otherwise user don't have the micro SD then unzip it intoPhone memory. The zipped file which is created in the systemwill unzip in the user micro SD card.

C. Installation in Smart Phone

After unzipping the file in micro SD card put it back into smartphone and this should create a folder called ANDBOOT of theroot of micro SD card when the entire field copied to the card.

On the phone do the following steps:

1. Go to Start>file explorer and navigate to the and boot folderto micro SD card.

2. Go to select and run haret.exe then click run.

D. Installation

Now after all this kind of stuffed to be fully executed without anyerror the user find out the Linux began to be loaded on the cellphone after clicking run button. While loading Linux press and hold the D pad button mentioned on smart phone until see the Welcome notation on the phone.

Now choose the following:

1. Install SystemThen Phone ask you between two options then select "yes" andthen after it will again ask user to select between two then userhave to be selected "yes".



Fig. 5: Installing Android System toSmartphone

2. This will install android operating System in user SD card andwant to overwrite in usercurrent phone Settings.

3. After while users come back to the menu, then choose Quit andwait for android to load.

- 4. After doing this the entire feature will work as like before itwas working.
- 5. If the user want to come back to the Windows then reboot thephone.

## VIII. Disadvantage

The drawback or say the negative point of this procedure is that if user reboot the smart phone the phone boot back to the Windowsoperating system And then if you Want to make it AndroidOperating System the Again Run Haret.exe, So this is the majordrawback of this proposed system rest all the functionality willwork as like previous when windows was working.

### IX. Dual Booting

The main advantage of dual booting is that it is one of the main bestfeature which make a cell phone as like a system by which user makeit very simple and attractive look and by doing this phenomenathe phone gets it's best feature to make dual booting. This feature is calling GEN.Y, this is the main and logical reasonbehind this to make it dual boot able.



Fig 6: Clip of Dual OS in Smartphone After Installing Gen.yDualboot

This program will give the freedom to the user by which inner facehe wants to make use it, or simply say create an option to dual bootbetween the two operating system which is chosen by user.

A. Installing Procedure

To install this feature in the cell phone inner faces do the followingsteps in the user cell phone.

Go the Gen.y DualBOOT.Cab and download it into user cell phone root Directory which the previously mentioned that is Andboot Folder.

# Gen.Y DualBOOT v1.0.6.0 CABs Gen.Y DualBOOT v1.0.6.0 Visuall

Fig. 7: Download Content of Gen.Y DualBOOT forSmartphone

1. Then after click the GenBoot file and make sure the user has to install it to the device.



Fig. 8: Compulsory Step for Android to Support Dual BOOT

3. Then run Android Boot Fix folder mention on the Andbootfolder which is the root folder of the SD card.

- 4. After all lastly change the name default text file to startup.
- 5. Now restarts the phone then user find the screen of somethingsimilar like this.



Fig. 9: View on Mobile for Dual Booting For Android andWindows

# X. Advantage

The main Advantage of this feature is those users have the choiceto select among one of them that in which operating system theuser wants to work out. Secondary their looks like a system which has the ability to do the all work related to all that stuff which theuser want to make it executed form. The entire phenomenon is totally free without purchasing the up gradation in it.

# XI. Maintenance

The maintenance of this proposed system is all about thephenomena on the basis of which user have to do nothing, theproposed system is made for simple use and higher performance. So the maintenance of this proposed system is very low and ifuser wants to have in it more feature so user has to make it moreupdated from through Internet.

# XII. Conclusion

The main feature by which this proposed system made it useablethat is the phenomenon of dual boot. This could make the userthe feel of that he is not working on a cell phone but work onlaptop or say desktop. There is no harm to make it use able inday to day life.

### XIII. Future Work

The use of this proposed system in the future work is that it has tobe working in the field of the business as well as for developing program and such kind of phenomenon.

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