EVALUATION OF SOME ANDROID EMULATORS AND INSTALLATION OF ANDROID OS ON VIRTUALBOX AND VMWARE

DR. HIDAIA MAHMOOD ALASSOULI

EVALUATION OF SOME ANDROID EMULATORS AND INSTALLATION OF ANDROID OS ON VIRTUALBOX AND VMWARE

DR. HIDAIA MAHMOOD ALASSOULI

Evaluation of Some Android Emulators and Installation of Android OS on Virtualbox and VMware

By

Dr. Hidaia Mahmood Alassouli

Hidaia_alassouli@hotmail.com

1. Introduction:

An Android emulator is an Android Virtual Device (AVD) that represents a specific Android device. You can use an Android emulator as a target platform to run and test your Android applications on your PC. The Android Emulator runs the Android operating system in a virtual machine called an Android Virtual Device (AVD). The AVD contains the full Android software stack, and it runs as if it were on a physical device

You can also install Android on VMware Workstation, VMware Player, VMware ESXi, and Virtualbox. Once you install Android on VMware Workstation or ESXi, you will get all features available for Android installed on a smartphone.

This report covers the evaluation of some Android Emulators and Installation of Android OS on Virtualbox and VMware. The report contains the following sections:

1. Enabling Hardware Virtualization
2. General guideline for installing OpenGL and running OpenGL programs on Microsoft Windows 7 and higher
3. Apk Downloader from Google Play Store to PC
4. How to install Xapk applications
5. Smart GaGa Android Emulator
6. NoxPlayer Android Emulator
7. Other Types of Gaming Android Emulators
8. Genymotion Android Emulator
9. Installing Android x86 ISO using Virtualbox
10. Installing Android x86 ISO using VMware
11. Running Android Apps on Google Chrome using ARC Welder extension

2. Enabling Hardware Virtualization:

Enabling Hardware Virtualization is perquisite for all Android Emulators.

Hardware virtualization, also known as hardware assisted virtualization, is the creation of virtual versions of operating systems and computers. The technology was made by AMD and Intel for their server platforms. Its purpose was to improve the processor's performance and meet virtualization challenges such as translating memory addresses and instructions.

Hardware Virtualization has many advantages to it. The main advantage is that it is much easier to control a virtual machine than a physical server. Operating systems running on the machine appear to have their own memory and processor. Hardware virtualization can increase the scalability of your business while also reducing expenses at the same time. It can reduce downtime costs that are otherwise incurred in terms of money losses and recovery time in times of disaster affecting a physical server. A virtual machine can be easily cloned, thus making the environment more resilient. It also increases your team's productivity by spending lesser time on physical hardware monitoring and maintenance.

To enable hardware virtualization

- Reboot your Computer and Press the BIOS Key. .
- Locate the section for CPU configuration.
- Find the Settings for Virtualization.
- Select the Option for Enabling Virtualization.
- Save the Changes You Have Made.
- Exit Your BIOS and Reboot Your Computer.