EVOLVE
Security Academy

Kali Linux Setup

Overview

Kali Linux is most popular penetration testing and offensive security testing suite that comes pre-loaded with dozens of tools. Kali Linux is a Debian based distribution. VirtualBox is a powerful x86 and AMD64/Intel64 virtualization product. Virtualbox is a type-2 (aka hosted) hypervisor. Type-2 hypervisors run on a conventional operating systems just as other computer programs do. A guest operating system runs as a process on the host. Type-2 hypervisors abstract guest operating systems from the host operating system.

Site: https://www.kali.org/
https://www.virtualbox.org/

Terminology

The following table defines some of the key terms you will need to understand:

Term	Definition
Hypervisor / Virtual Machine Monitor (VMM)	A piece of computer software, firmware or hardware that creates and runs virtual machines. A computer on which a hypervisor runs one or more virtual machines is called a *host* machine, and each virtual machine is called a *guest* machine.

Architecture

The following diagram illustrates a type-2 hypervisor.
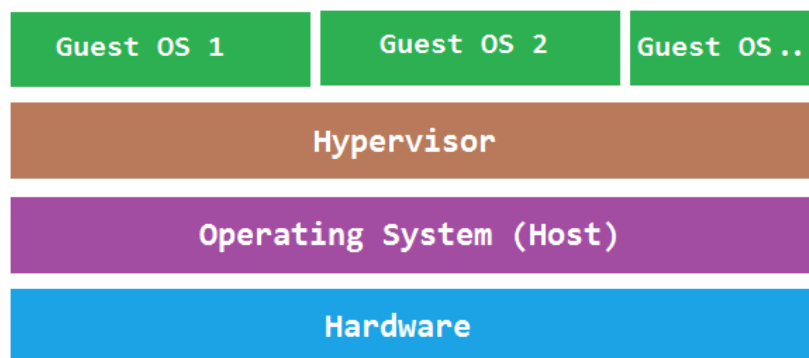
Lab Instructions

This set up comes with packages and configurations that would have been needed if choosing to install a simple image from kali. https://www.kali.org/downloads/

Tools and devices required for the install:
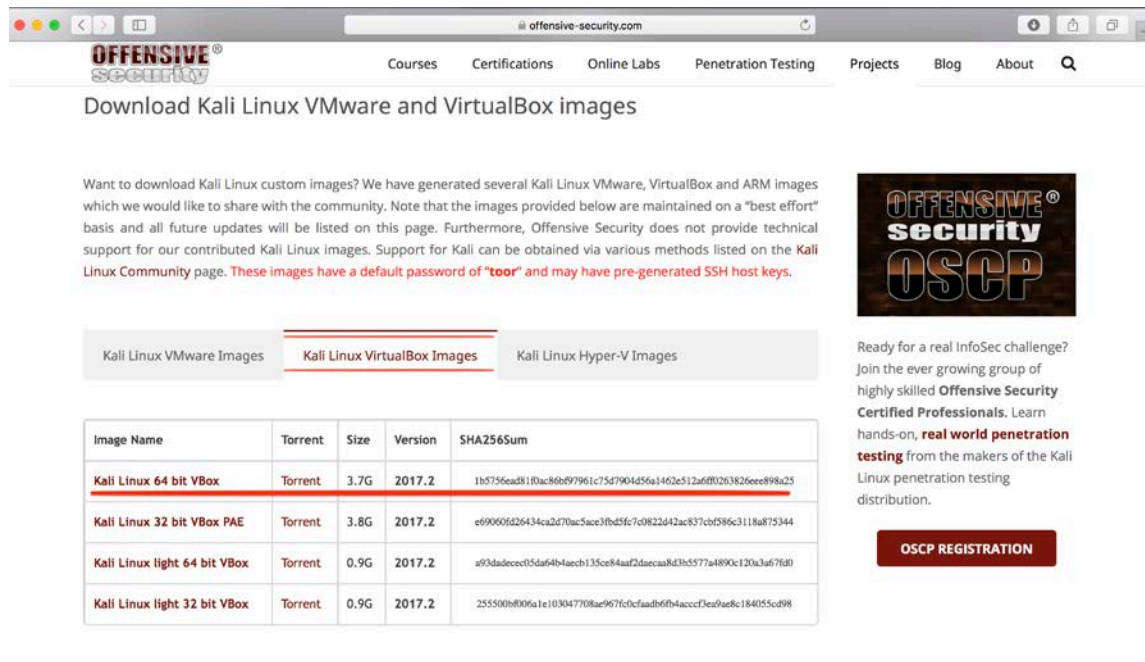
-VirtualBox: https://www.virtualbox.org/wiki/Downloads
-Device with 8GB RAM minimum
-Device storage with at least 50 GB empty

Set up:

Download the Kali ova from the offensive security website: https://www.offensive-security.com/kali-linux-vmware-virtualbox-image-download/

Click on Kali Linux VirtualBox Image.

Select the Kali Linux 64 bit VBox Image to start the download.

Once the download is done, you can verify the hash under sha256sum from offensive security's website of the downloaded image. Below is the Unix command to verify the hash:
shasum -a 256 <name of the downloaded ova>

For a windows machine, please follow the instructions in the following link:
https://support.microsoft.com/en-us/help/889768/how-to-compute-the-md5-or-sha-1-cryptographic-hash-values-for-a-file

After making sure that the two hashes are matching, open virtualbox and select "import appliance".
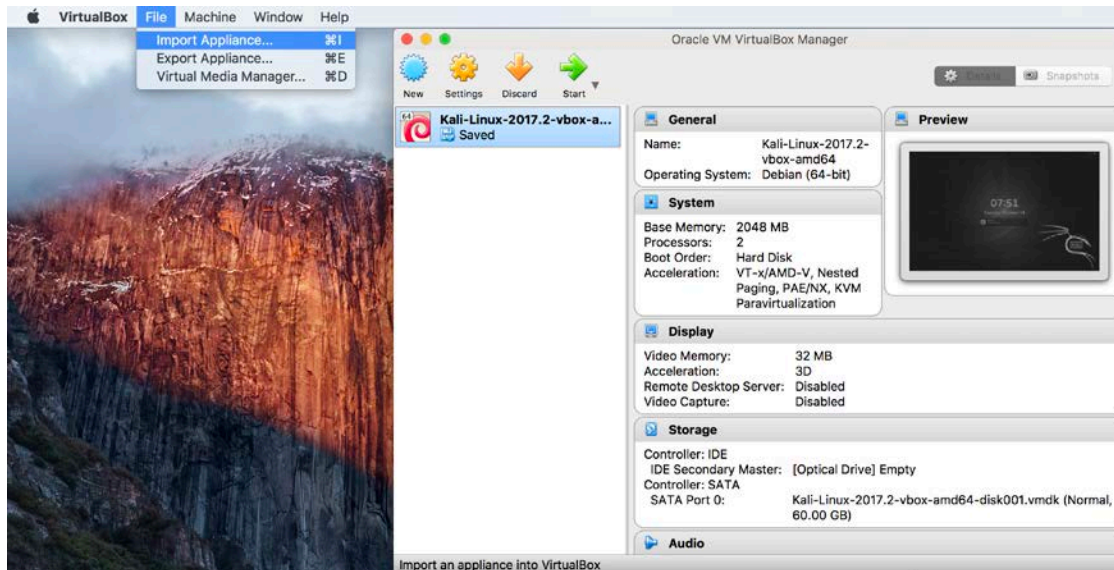

In the appliance settings, change the "RAM" to a higher or lower amount based on your device capacity, a minimum of 2048 MB is highly recommended.
Unselect the "USB Controller".
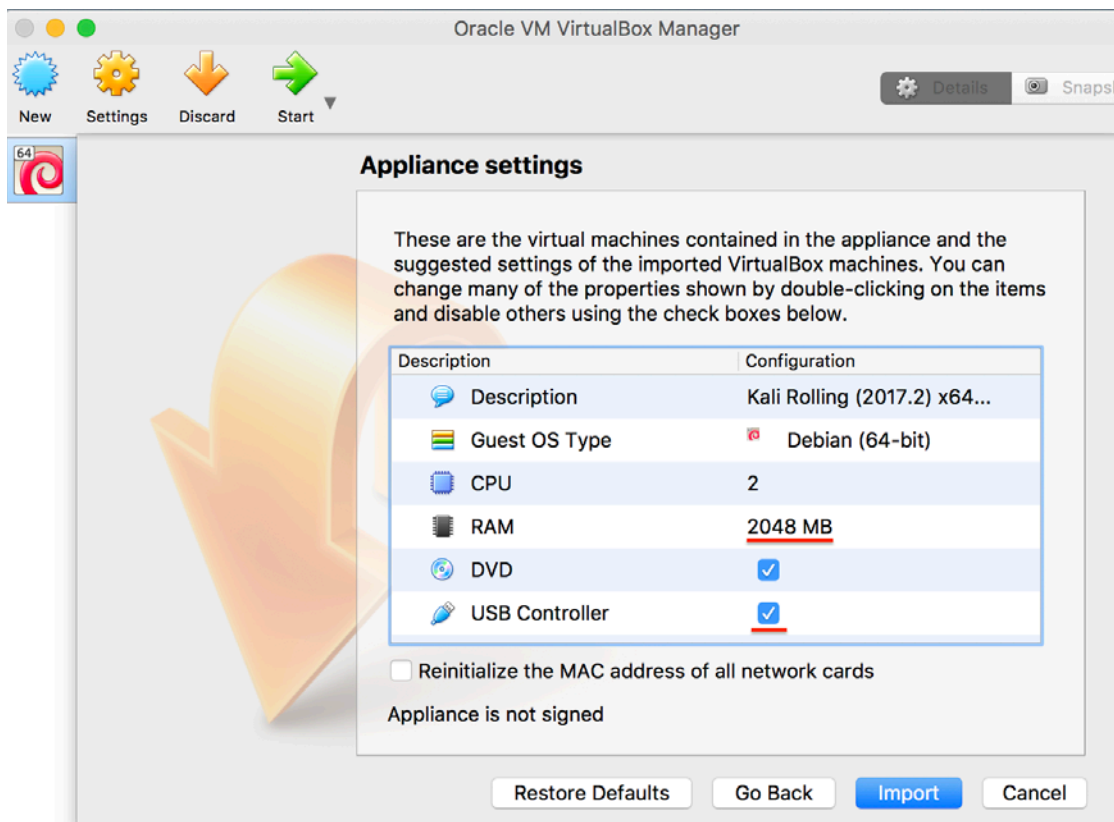
After configuring those appliance settings, start to import the appliance. Once the import is finished, go into Settings —> Display —> Screen and change the video memory to 128 MB
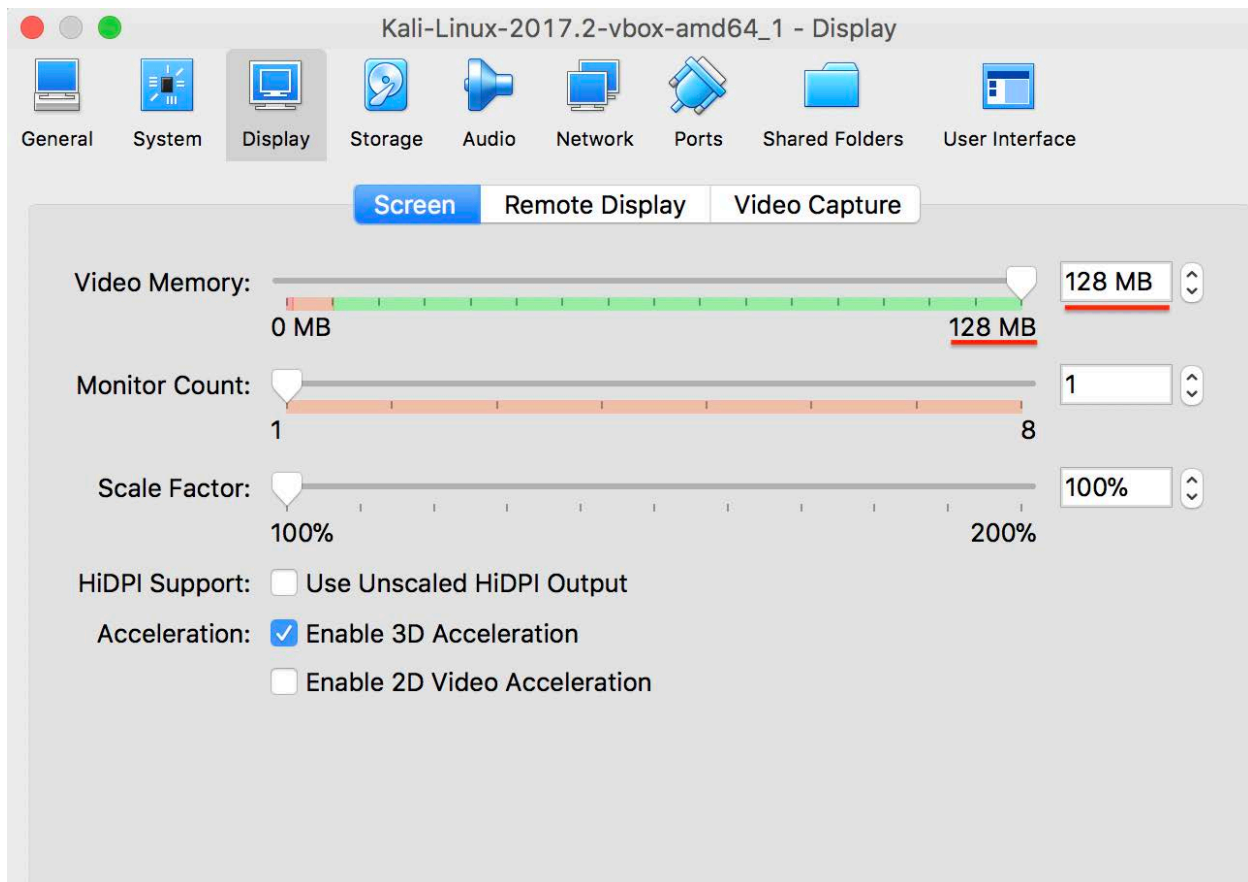
Finally, create a Shared Folder. Go into Settings —> Shared Folder —> Add a folder. Create a specific path and folder for this shared folder. Select Auto-Mount and Make Permanent -if prompted-.
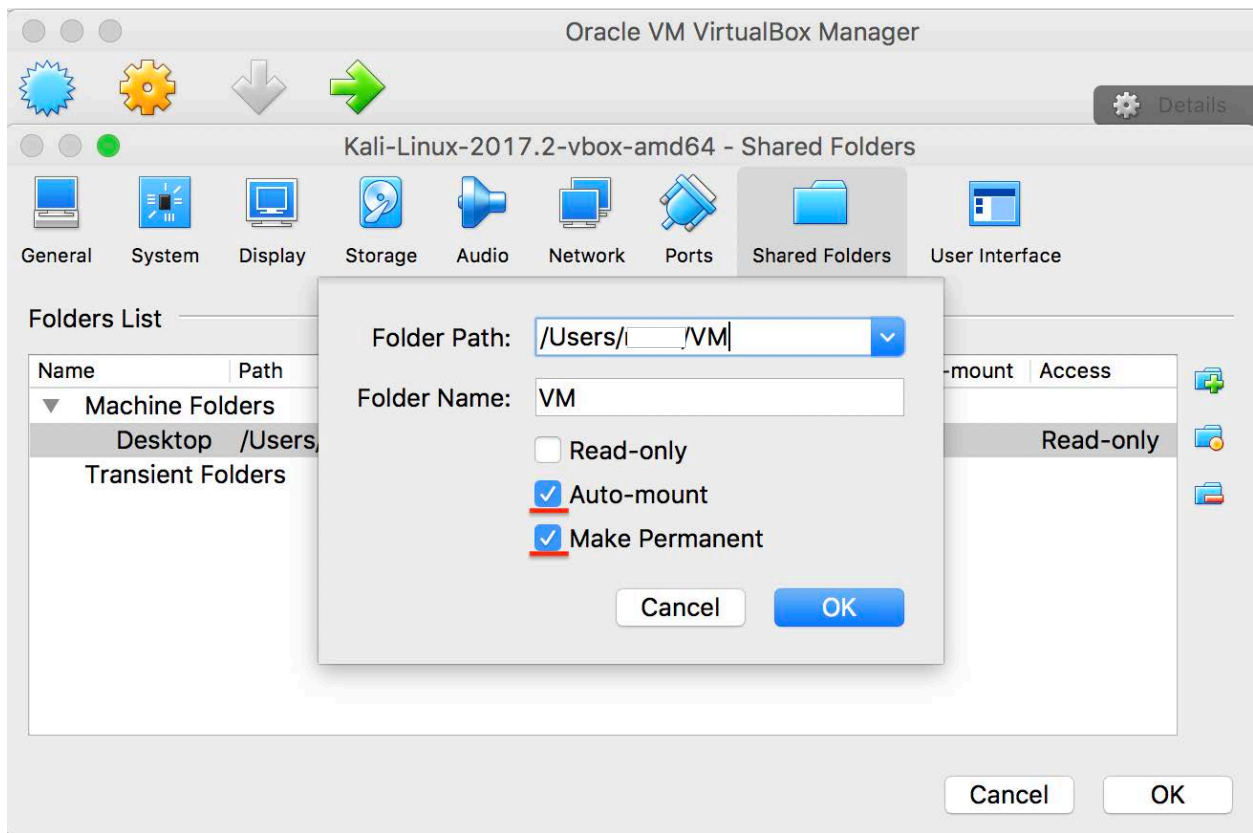
You can now start your VM, your default credentials should be root-toor.