**Lab 02**

1. Compare and contrast of the different ways to get Kali Linux running on your own machine. Which one did you choose and why?

**Ans.** Different ways to install kali are:

1. Kali Linux Hard disk install on windows/Mac
2. Dual boot kali on windows/Mac
3. Kali Linux Encrypted Disk Install
4. Kali Linux Mini ISO Install
5. Kali Linux Network PXE Install

I used the hard disk installation since I installed kali on my VM machine using the .iso file.

1. When you setup any type of virtual machine there are different network settings that you can apply to the VM. The general types of networking are bridge, NAT, and Host-Only. When thinking about pentesting, compare and contrast the 3 ways of settings up networking for a VM. Which do you think is best for pentesting?

**Ans.** In **Bridged mode**, the virtual machine will try to obtain the IP address from the same source from where the default network address got its IP address.

In **NAT mode**, the virtual machine has a private IP addresses which can’t be routed outside.

In **Host-Only mode**, it is similar to bridged mode except that it has a dedicated network device called vboxnet0, to get the IP address.

For pentesting, Host-Only network is best as it has its own dedicated network device.

1. In VirtualBox, there are two flavors of NAT. There is just “NAT” and “NAT network”. What is the difference between the two? Which one is the most similar to NAT within VMware?

<https://www.virtualbox.org/manual/ch06.html#networkingmodes>

<https://www.vmware.com/support/ws3/doc/ws32_network21.html>

Ans. Difference between NAT and NAT network:

NAT is the simplest way to access the external network from a virtual machine. In NAT, the virtual machine is invisible and it is unreachable from the outside internet. The server can’t be run unless a port forwarding is set up.

Whereas,

NAT network groups the system by using it into a network. Thus, the outside systems can’t directly access the system inside internal network. The inside systems can communicate with the outside systems using TCP and UDP over the IPv4 and IPv6.

NAT within VMware is similar to NAT network in VirtualBox.

1. In the email, write out that you got Kali Linux working. Say something like “I got Kali working. I’m the king of the world” or something more colorful.

**I have got Kali working my system. I run the world!**

**References:**

1. http://docs.kali.org/category/installation
2. http://www.dedoimedo.com/computers/virtualbox-network-sharing.html
3. https://www.virtualbox.org/manual/ch06.html#nat-limitations