

1. VM Setup

1. You should try this out much before the lecture to ensure everything goes smoothly when the lecture starts.
2. Download and install the latest Virtual Box from their website
<https://www.virtualbox.org/wiki/Downloads>
3. All Virtual Machines (VM) to be used for Security Tools Lab 1 are available at the below link:
<https://www.dropbox.com/sh/zlcj6xcoz3yakw/AAB9qrEQnawfWSIm8cS07p4Ta?dl=0>

For Week 1, please download Kali VM (highlighted below).



4. Please ensure you have at least 20GB free in your hard disk and 8GB of RAM to be able to run the VM successfully. Once both VirtualBox and the VM are downloaded, proceed to install the VM by double clicking on the Kali.ova file and you will see a similar screen as below.

Appliance settings

These are the virtual machines contained in the appliance and the suggested settings of the imported VirtualBox machines. You can change many of the properties shown by double-clicking on the items and disable others using the check boxes below.

Virtual System 1	
Name	MSSD_Labs_kali 1
Guest OS Type	Debian (64-bit)
CPU	1
RAM	2048 MB
DVD	<input checked="" type="checkbox"/>
USB Controller	<input checked="" type="checkbox"/>
Sound Card	<input checked="" type="checkbox"/> ICH AC97
Network Adapter	<input checked="" type="checkbox"/> Intel PRO/1000 MT Desktop (82540EM)
Storage Controller (IDE)	PIIX4

You can modify the base folder which will host all the virtual machines. Home folders can also be individually (per virtual machine) modified.

Folder: C:\Users\MSSD\VirtualBox VMs

MAC Address Policy: Include only NAT network adapter MAC addresses

Additional Options: ☒ Import hard drives as VDI

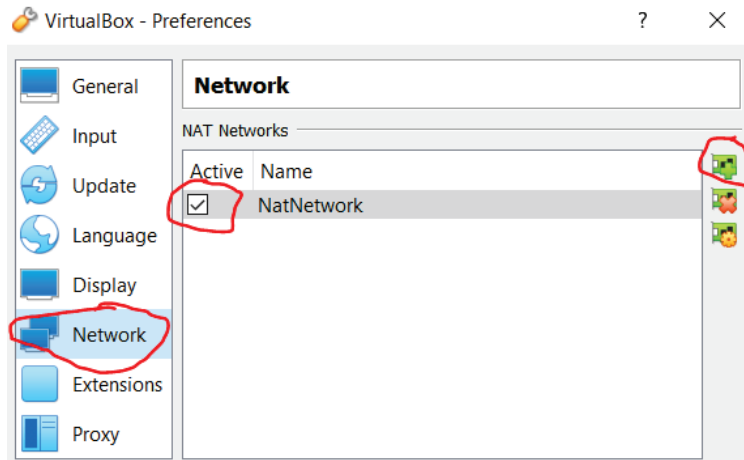
Appliance is not signed

Restore Defaults Import Cancel

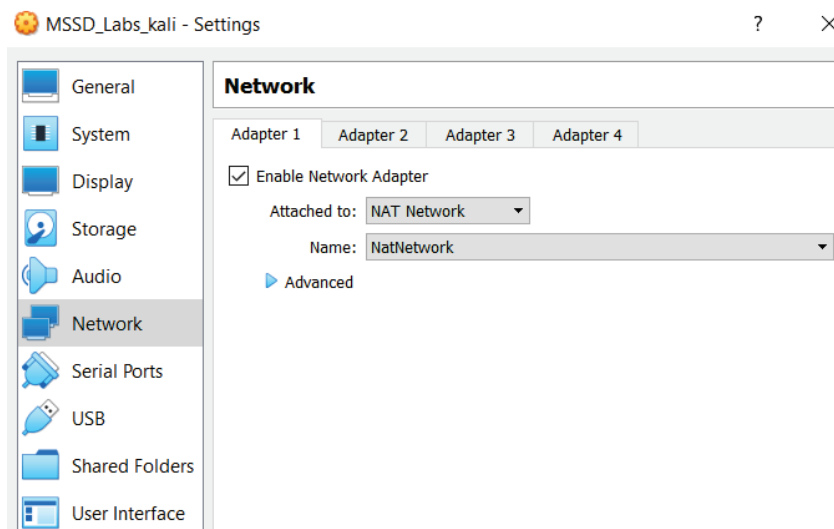
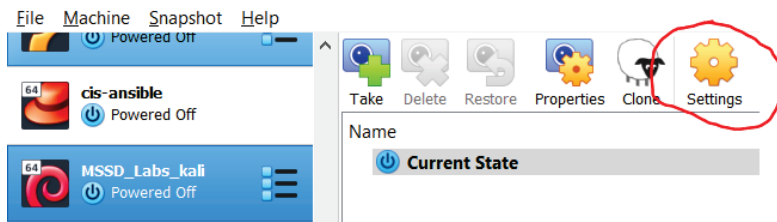
5. Do not change any of these and proceed by clicking on 'Import'.
6. After successful import, you will see it in the VM list on VirtualBox.



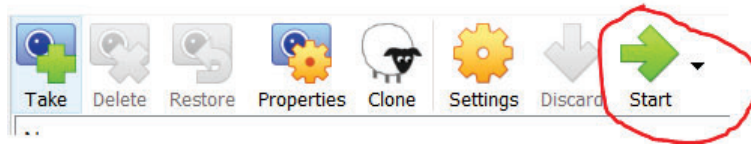
- Click on 'File' -> 'Preferences'. In 'Preferences' click on 'Network'. For those who does not have any 'NatNetwork', click on the '+' button to add one. Ensure that the box next to NatNetwork is ticked, then click 'Ok'.



- Click on Settings. In the Settings menu, click on 'Network'. Note that this is the Virtual Machine settings, and not VirtualBox preferences as in the previous case. Ensure you chose NAT Network and click 'Ok'.



- You can now proceed to start the VM by clicking on 'Start'.



10. Once the machine is started, proceed to login using 'root' as username and 'toor' as password. The password is the reverse of 'root' and everything is in small letters.
11. In the VM, right click on the desktop and select 'Open Terminal'. Type 'ifconfig' and ensure your IP is in the form of 10.0.2.x. This shows that your VM is ready for the lab. Please ensure you have your VM in this state at the beginning of class.

```
root@mssd-labs-kali:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.17 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::a00:27ff:fe06:c6af prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:06:c6:af txqueuelen 1000 (Ethernet)
    RX packets 11 bytes 2658 (2.5 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 27 bytes 2791 (2.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

2. Python Setup

We will be using Python 3 in this lab. Please ensure it is setup before class. You can follow the instructions [here \(https://www.python.org/downloads/\)](https://www.python.org/downloads/).