

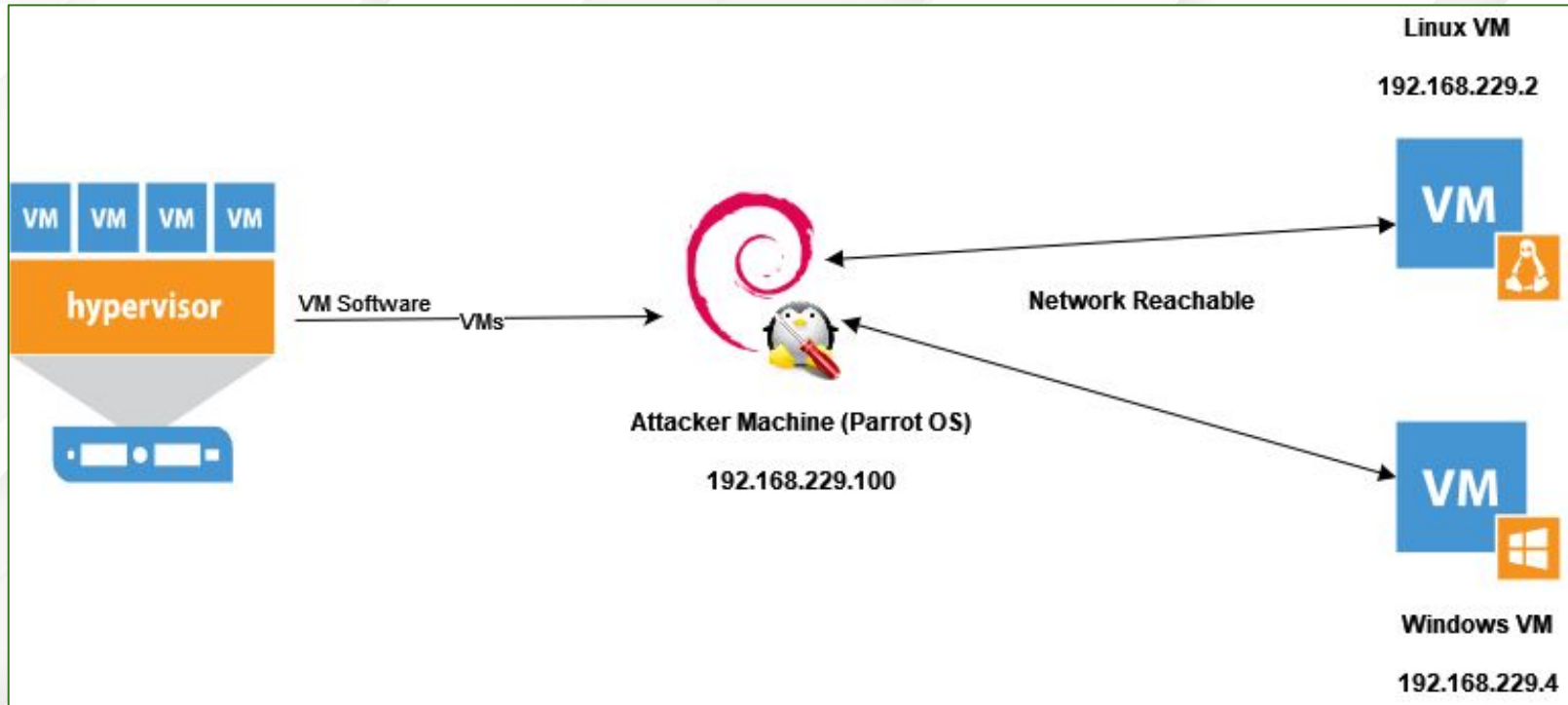
# INFRASTRUCTURE SETUP MODULE - 2



# **2. INFRASTRUCTURE SETUP**

# **Lab 1 : Setup Virtual Environment as per platform**

## 2.1 Lab Architecture Overview



**INFO :** 8 GB RAM with 512GB HDD / SSD would be good. We will not be running all the machines simultaneously

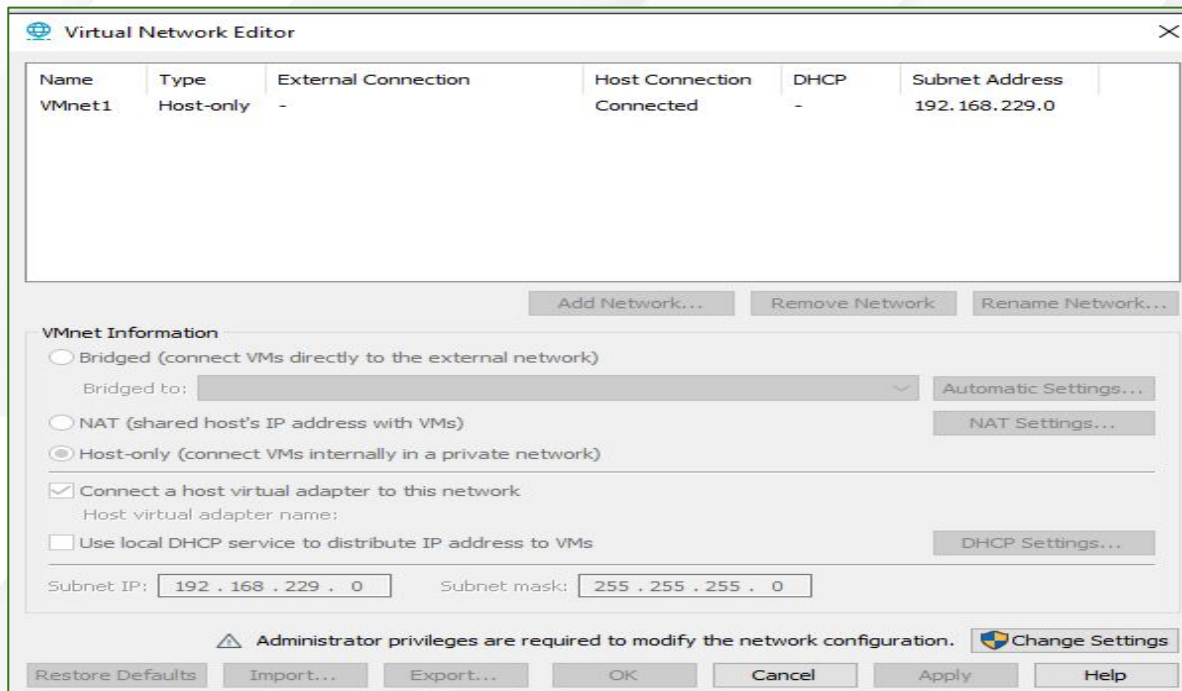
# **Lab 2 : Download ISOs & Installation**

- Parrot OS [<https://www.parrotsec.org/download/>]
- Windows 10 Evaluation  
[<https://www.microsoft.com/en-in/evalcenter/download-windows-10-enterprise>]
- Metasploitable Machine  
[<https://sourceforge.net/projects/metasploitable/files/Metasploitable2/metasploitable-linux-2.0.0.zip/download>]

# **Lab 3 : Lab Network Configuration**

## Step 1: Network Configuration in workstation

Create Network Adapter in VMWare Workstation with the IP Range (int n/w) :  
**192.168.229.0/24**



Name	Type	External Connection	Host Connection	DHCP	Subnet Address
VMnet1	Host-only	-	Connected	-	192.168.229.0

VMnet Information

☐ Bridged (connect VMs directly to the external network)  
Bridged to:  Automatic Settings...

☐ NAT (shared host's IP address with VMs)  
NAT Settings...

☒ Host-only (connect VMs internally in a private network)

☒ Connect a host virtual adapter to this network  
Host virtual adapter name:

☐ Use local DHCP service to distribute IP address to VMs  
DHCP Settings...

Subnet IP:  Subnet mask:

Administrator privileges are required to modify the network configuration. [Change Settings](#)

Restore Defaults Import... Export... OK Cancel Apply Help



# **Lab 4 : Configure IP Address in Machines**

## **Step 2 : Parrot OS Setup**

**Add 2 adapters** - Bridge Network & int n/w **[192.168.229.100]**

Make sure that there is an active internet with bridge network and internal network connectivity.

## **Step 3 : Metasploitable Network Configuration**

**Add 1 adapter** - int n/w **[192.168.229.2]**

Set the static IP address by editing in the following file **"/etc/network/interfaces"**

```
GNU nano 2.0.7 File: /etc/network/interfaces

# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet static
address 192.168.229.2
netmask 255.255.255.0
gateway 192.168.229.1

[ Read 14 lines ]
^G Get Help  ^O WriteOut  ^R Read File ^W Prev Page ^K Cut Text   ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is  ^U Next Page ^U UnCut Text ^T To Spell
```

- Restart the Network Service & check static IP allotment

```
root@metasploitable:~# /etc/init.d/networking restart
* Reconfiguring network interfaces...
root@metasploitable:~#
```

[ OK ]

```
root@metasploitable:~# ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 00:0c:29:1a:83:50
          inet addr:192.168.229.2  Bcast:192.168.229.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe1a:8350/64  Scope:Link
```

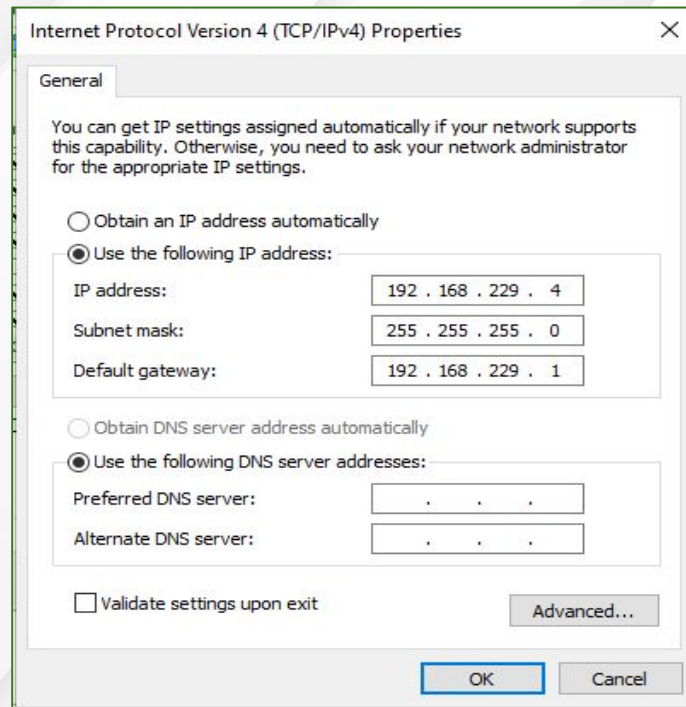
## Step 4 : Windows 10 network configuration Setup

Add 1 adapter – int n/w [192.168.229.4]

Login as “**Local Administrator**” and open the following settings:

**Control Panel > Network and Internet > Network and Sharing Center > ethernet0 > Properties**

Set the following IP address:



Internet Protocol Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 192 . 168 . 229 . 4

Subnet mask: 255 . 255 . 255 . 0

Default gateway: 192 . 168 . 229 . 1

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: . . . .

Alternate DNS server: . . . .

☐ Validate settings upon exit

Advanced...

OK Cancel

Check the IP address:

```
C:\Users\employee>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet0:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::709f:56df:adaa:1205%12
    IPv4 Address. . . . . : 192.168.229.4
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.229.1
```

**NOTE :** Make sure that we can ping **“Metasploitable 2” & Parrot OS**

```
C:\Users\employee>ping 192.168.229.10

Pinging 192.168.229.10 with 32 bytes of data:
Reply from 192.168.229.10: bytes=32 time<1ms TTL=64
Reply from 192.168.229.10: bytes=32 time<1ms TTL=64
Reply from 192.168.229.10: bytes=32 time<1ms TTL=64
Reply from 192.168.229.10: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.229.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

## Check the following:

- Network Connectivity between every machines
- Internet Connectivity in Parrot OS
- Windows Host Firewall will be enabled restricting accessibility. Turn it **"OFF"** for the sake of the next exercises.



# Thank You

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