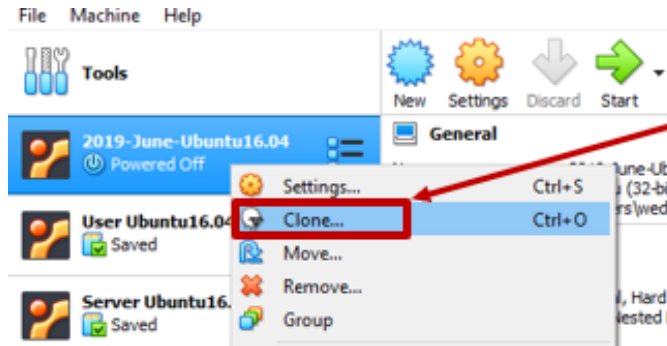# Multi-VM Lab Setup

Step 1: Clone (make a copy) VMs
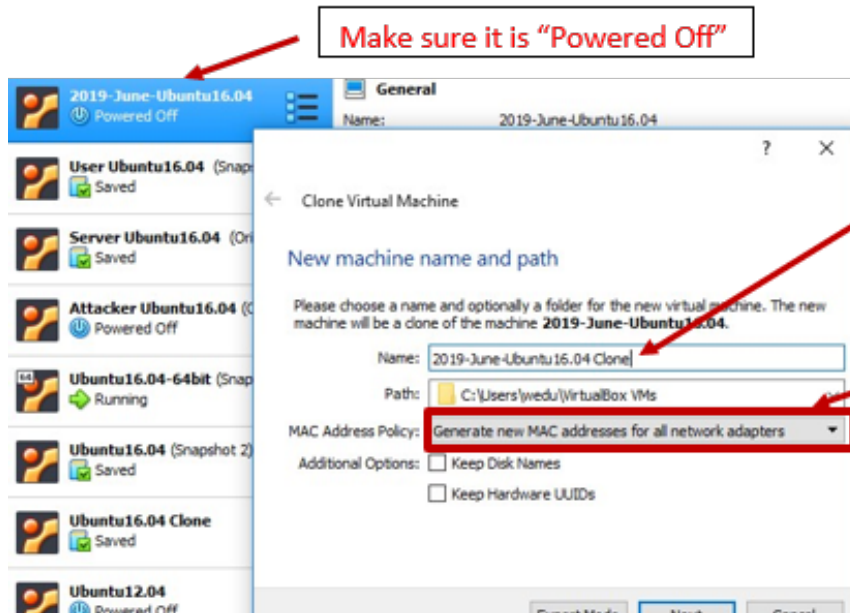
- Check Appendix A and B to find out how to run multiple VMs and connect them internally through NAT Network.
  - https://seedsecuritylabs.org/Labs_16.04/Documents/SEEDVM_VirtualBox Manual.pdf

Clone of SEED VM

Right click the VM, and select "Clone..."

Based on your VirtualBox version, this option might show up as "Reinitialize the MAC address of all network Cards"
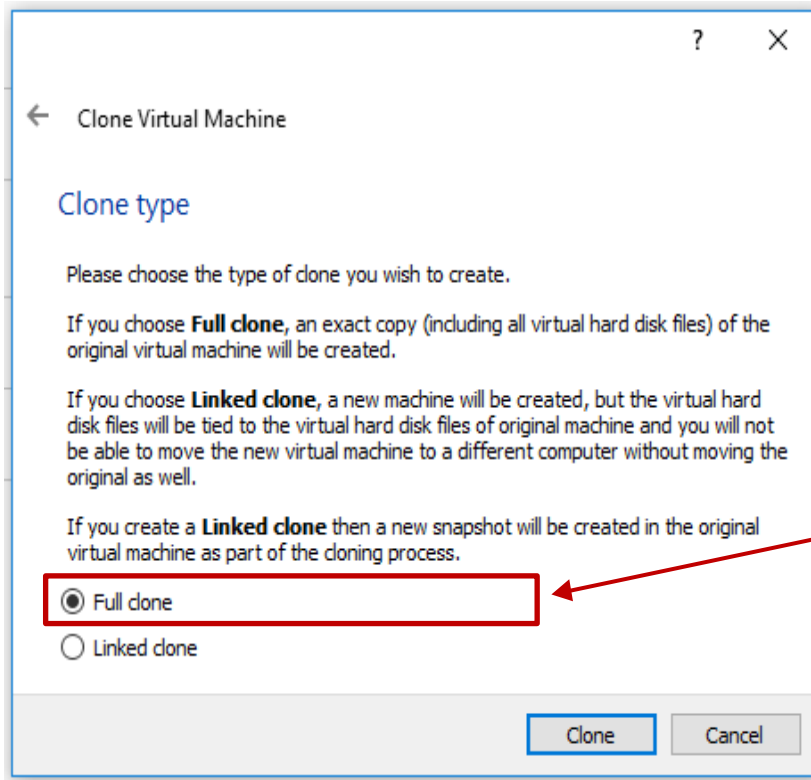
Make sure it is "Powered Off"

You can pick a meaningful name here.

IMPORTANT: we don't want to clone the MAC address. Select this option. If you don't, both VMs will have the same MAC address, and therefore, they will get the same IP address. That will cause problems.
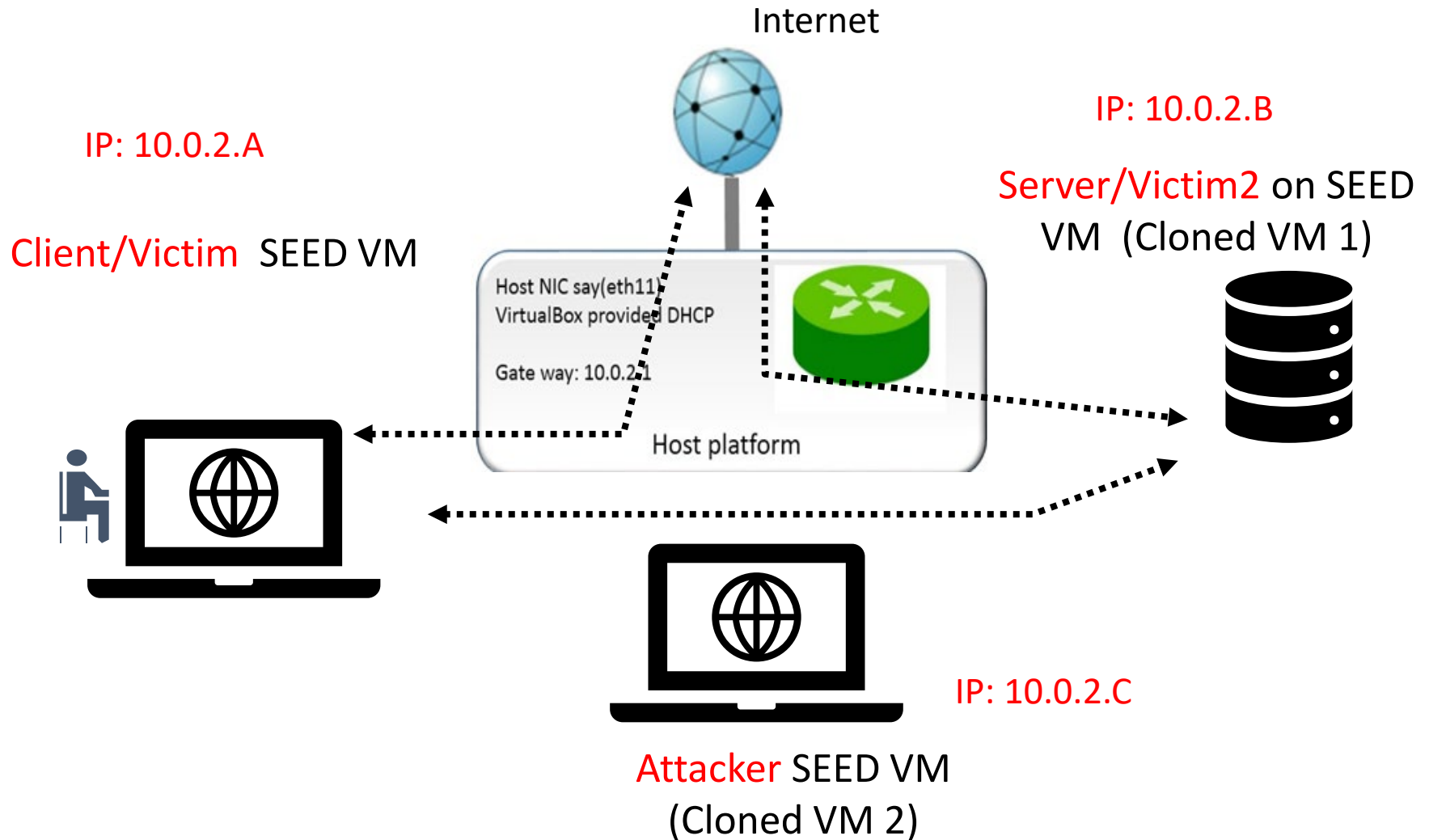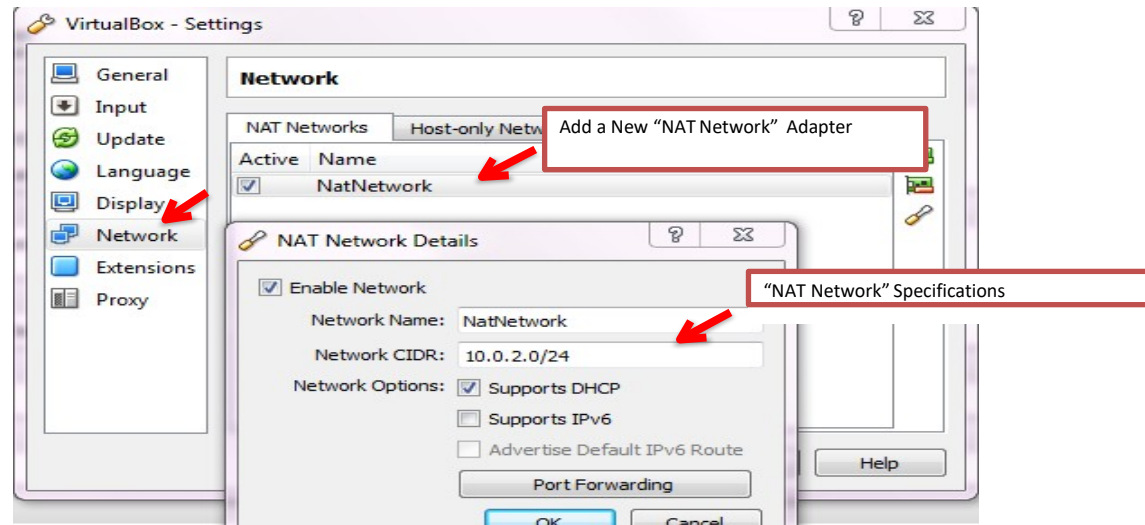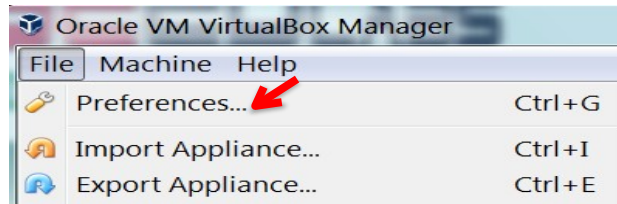
3

Clone of SEED VM

The clone will take a few minutes, depending on the speed of your computer.

Step 2: VM Network Setup

Internet

IP: 10.0.2.A

IP: 10.0.2.B

Client/Victim SEED VM

Server/Victim2 on SEED VM (Cloned VM 1)

Host NIC say(eth11)
VirtualBox provided DHCP

Gate way: 10.0.2.1

Host platform
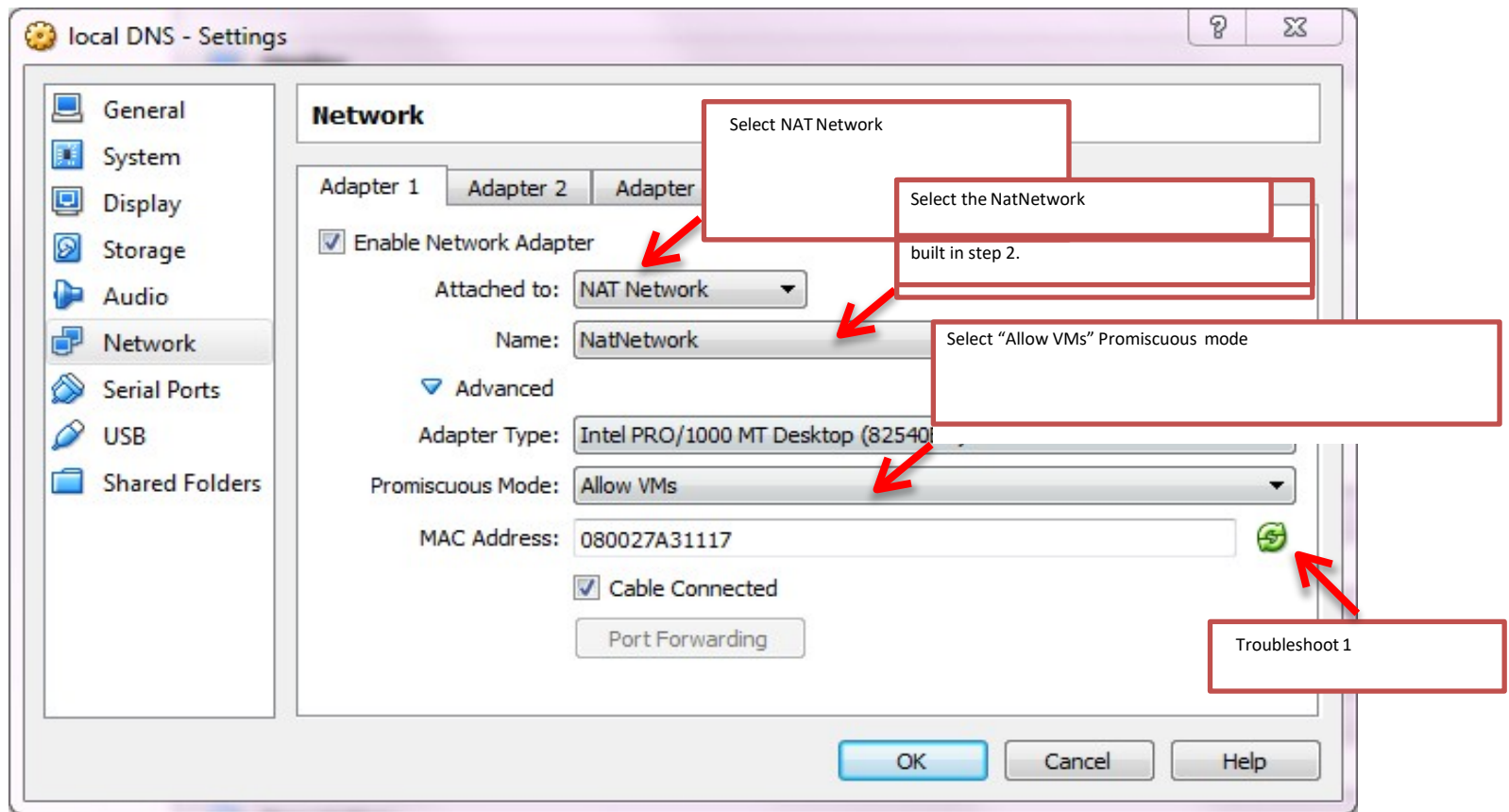
IP: 10.0.2.C

Attacker SEED VM
(Cloned VM 2)

VM Network Setup (At VirtualBox Configuration)

VM Network Setup (individual VM setting)

Go to VM setting, you need to power off the VM before making the following changes. Enable Adapter 1(at the same time, disable the other adapters), and choose "NAT Network".
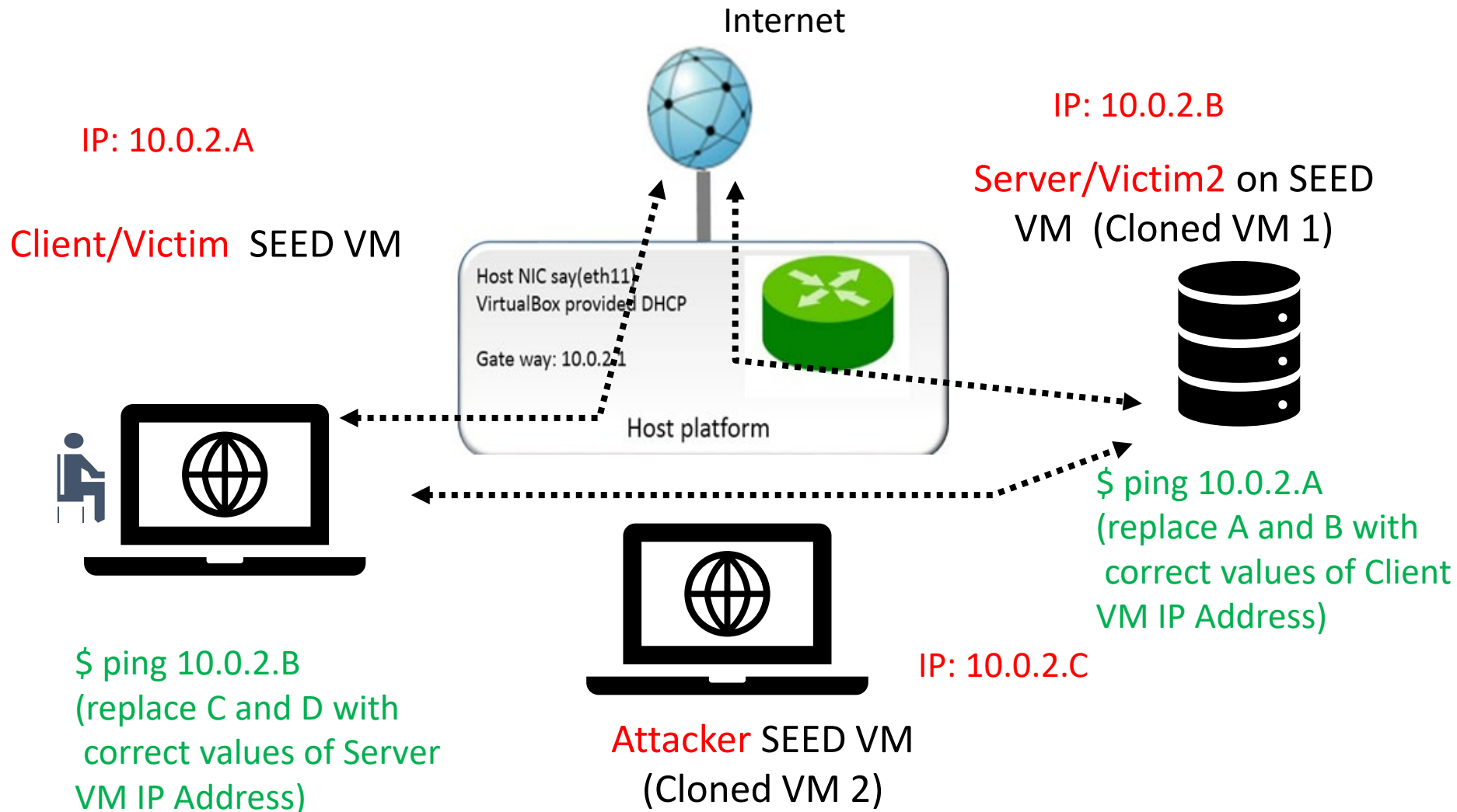
VM Network Setup (IP Address)

Check Network Connectivity: Ping

Internet

IP: 10.0.2.A

Client/Victim SEED VM

IP: 10.0.2.B

Server/Victim2 on SEED VM (Cloned VM 1)

Host NIC say(eth11)
VirtualBox provided DHCP

Gate way: 10.0.2.1

Host platform

$ ping 10.0.2.A
(replace A and B with
 correct values of Client
VM IP Address)

$ ping 10.0.2.B
(replace C and D with
 correct values of Server
VM IP Address)

IP: 10.0.2.C

Attacker SEED VM
(Cloned VM 2)

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TCP Client Serve Code Execution

Internet

IP: 10.0.2.15

Server on SEED VM
(Cloned VM 1)

IP: 10.0.2.15

Client SEED VM

Host NIC say(eth11)
VirtualBox provided DHCP

Gate way: 10.0.21

Host platform

Need to compile and execute first
Server code on this VM
To compile, use gcc

Compile and execute
Client code on this VM next.