To get started on being able to ping two different virtual machines with VirtualBox then go ahead and download the latest version from this url: <https://www.virtualbox.org/wiki/Downloads> . Make sure that everything has been downloaded correctly. For this tutorial, I will be using a Windows host machine with enough resources for two virtual machines. The first machine will be named master1 and the second will be master2. Each will have 10 GB in storage and 2 GB in RAM. Do the following:

* Go to settings->General->Advanced
  + And change the Shared Clipboard to: Bidirectional
  + And change Drag’n’Drop to: Bidirectional
* Go to settings->System
  + Uncheck the floppy and move it down below hard disk.
* Go to settings->System->Processor
  + Make sure that the Enable PAE/NX is unchecked.
* Go to settings->Storage
  + Click the cd under Controller: IDE, and on the far right click the other cd and pick your virtual optical disk drive. This is where you can add your OS image.
* Go to settings->Network
  + Go to Adapter 2, click the checkbox next “Enable Network Adapter”.
  + Next switch the Attached to from Not Attached to Host-Only Adapter.
  + Next, change the Promiscuous Mode under the Advanced settings to Allow VMs.
  + Then click the “ok” button at the bottom.

Here are some other commands and or knowledge that might be useful down the road. You can use this command for adding an IP address: sudo ip ad add 10.0.0.10/24 dev eth0, the /24 tells the computer that the last 8 bits of the 32 can change. You can just do the opposite as well with this command: ip ad del 10.0.0.40/32 dev eth0.

The NAT stands for network address translation, the NAT virtualizes the internet protocol and decreases the number of IP addresses an organization needs. The Host-only adapter can connect to multiple virtual machines that are running on the same machine. The Bridged Adapter can allow the host machine be able to putty into the virtual machine.

Here is just some of the basic information to know about the networking for any operating system that is running on VirtualBox. The /etc/hosts file maps hostnames to IP addresses, and is where you can add other IP address to associated hostnames. This works well when you want to replace IP addresses for hostname’s, basically like a shortcut. The interfaces file that is located at /etc/network/interfaces is where you can associate a network device with a static IP address.

Etc hosts on either Ubuntu or Centos