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Assignment 1 - Mininet Setup - Returned

Title Assignment 1 - Mininet Setup

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Grade 6.0 (max 10.0)

Instructions

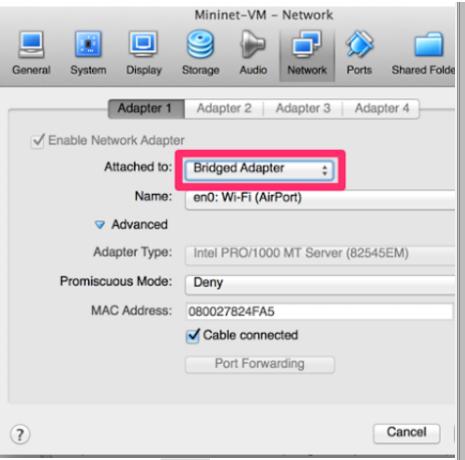
Assignment 1 - Mininet Setup

Goal

The goal of this assignment is to setup the Mininet virtual machine on the computer you will use for course assignments. Preferably this computer will be the machine with the most memory and fastest processor if you have multiple computers as some assignments will take a few minutes to run.

Directions

- 1. Download and install the latest Virtualbox for your platform. You can find Virtualbox here.
- 2. Download the latest Mininet virtual machine image <u>here (64bit)</u>. The download is ~1GB in size so be patient with the download and if possible, connect your computer to the Internet via a wired connection. If the download is especially slow, setup your computer to download the image overnight.
- 3. In Virtualbox select File -> Import Appliance and select the .ova you just downloaded. Virtualbox will show you the VM settings and you can then click Import.
- 4. Next, setup a bridged network by selecting the VM in the left side bar and then Settings -> Network and ensure that Adapter 1 is enabled and attached to a Bridged Adapter. Once you've ensured this, close the settings dialog.



- 5. Start the VM by clicking Start .
- 6. Log in to the VM using mininet for the username and password.
- 7. Type sudo ifconfig on command line. This will display the IP addresses of the connected network interfaces. Note if you have trouble with this step try the instructions under "Setup Network Access" here.

```
Mininet-VM [Running]
ininet@mininet-vm:~$
nstall-mininet-um.sh
                                                              output.txt
mininet@mininet-vm:~$ pwd
hone/nininet
nininetOmininet-vm:
                                           addr 08:00:27:82:4f:a5
Bcast:192.168.1.255 | Mask:255.255.25
eth0
                                            LTICAST MTU:1500 Metric:1
                packets:109 errors:0 dropped:0 overruns:0 frame:0
            TX packets:102 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000
             RX bytes:14933 (14.9 KB) TX bytes:9396 (9.3 KB)
            Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
UP LOOPBACK RUNNING MTU:65536 Metric:1
RX packets:160 errors:0 dropped:0 overruns:0 frame:0
lo
                packets:160 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:0
RX bytes:12736 (12.7 KB) TX bytes:12736 (12.7 KB)
mininet@mininet-vm:~$ _
```

8. Open a terminal on your desktop (Terminal on Mac OSX, Putty on Windows and xterm on Linux) and

type ssh mininet@ip_address where ip_address is the IP address under the eth0 output from the ifconfig command. Use the password mininet.

- 9. Now we will run a test to ensure Mininet is working correctly.

 Type sudo mn --test pingpair.
- 10. Copy and paste the output from the command line into a text editor named 'assignment-1.txt' and submit via T-Square.



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