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CIS 245

Networking Assignment

5/2/2022

Link to GitHub:

<https://github.com/jackfrosttt/CIS245-Linux-Administration-Classwork/tree/main/Networking>

Instructions for the Assignment:

* Document network setup. This should include locations of any files you've created or need to reference. You should include any programs you've installed or updated as well, with dates of when you've done those things. Include a short document including how you did any of the installs or updates.

Network Setup for CentOS

The network configuration that CentOS needed was very minimal. The virtual machine it ran on was a fresh installation of CentOS 9 with just the bare minimum server installed, there was no additional software other what comes with the operating system by default.

The only program that needed to install to run the script was traceroute on 5/2/2022 and that was accomplished by entering: (sudo dnf install traceroute -y)

After installing, I did not update the system. I was not required to install any programs to run the network script other than traceroute.

The location of the script was in the /home directory and the output was in /tmp/logs/networkscriptlogoutput/networkscriptoutput\_xxxx\_xx\_xx\_##\_##\_AM/PM.txt

The IP address of the system of the system was dynamically assigned from the DNS server which is also the DHCP server, 192.168.1.151 while the system IP address was 192.168.1.171 with a subnet mask of 255.255.255.0.

There was no config files needed to access the network or white/black list for MAC addresses.

Net-tools was already installed.

The IP address for the network was 192.168.1.171 and it was dynamically assigned from the DHCP server on the network.

The system was using the enp0s3 adapter.

The hostname is centosvirtualbox

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

Citations:

https://www.server-world.info/en/note?os=CentOS\_Stream\_9&p=initial\_conf&f=3

Network Setup for Ubuntu

The network configuration that was done for Ubuntu was very minimal as well. All the prerequisites were installed on the system.

If the traceroute and netstat command doesn’t work, then installing net-tools and traceroute will fix it. The commands are: sudo apt install traceroute -y and sudo apt install net-tools -y.

The location of the script file was in the /home/user/networking directory and the results were in the directory /tmp/logs/networkscriptlogoutput/networkscriptoutput\_xxxx\_xx\_xx\_##\_##\_AM/PM.txt

Network Configuration Details:

The host name is tomatov3

A screenshot of a computer

Description automatically generated

Text

Description automatically generated

Citations:

https://ubuntu.com/server/docs/network-configuration

Dates I Installed Programs

Ubuntu - 2022-05-02 - Traceroute, and net-tools

Centos - 2022-05-02 - traceroute

Network Setup for both Systems

In the settings for the virtual machine program that I used to run these operating systems, I bridged the network adapter to the network card that came with my computer and had the virtual machines use their own auto-generated mac address, so they’d get their own individual IP addresses on the network, rather than use my computer’s own.

The IP addresses for both were dynamically assigned from the DHCP server on the network.

I installed the program WinSCP on my host system in order to share files between the host and the virtual machine if I needed to.

How to Connect to Server in WinSCP

* Launch WinSCP on host computer.
* Select new session.
* Graphical user interface, text, application

  Description automatically generated
* Enter the host name created earlier in the system installation or IP address if you know it, your username, password, and then press login.
* Graphical user interface, text

  Description automatically generated
* It’ll then display your virtual machines home directory to share files.
* Graphical user interface, text, application, chat or text message

  Description automatically generated

How to Bridge Network Adapter in Virtual Box:

* In the settings for the virtual machine you’re running, go to Network, Adapter 1, select Bridged Adapter and then the name of the adapter depending on connection. (Ethernet or Wireless) and then click ok.

Graphical user interface, text, application, email

Description automatically generated