Accessing Linux Servers Remotely

OVERVIEW

The Linux servers can normally be accessed through the computers in the NEB computer lab using only your GatorLink username and password. If you would like access to the servers from your own computer, or even off campus, this guide is a useful tool for setting up remote access.

In order to remotely connect to the Linux servers you must be connected to the UF network. If you are already connected to the UF network, you may skip Section 2. If you are trying to remotely connect to the Linux servers from off campus, you will need to complete Section 2 in order to connect to the UF network.

This tutorial is completed using a Windows OS, but the procedure should be similar for other OS.

1 TOOLS SETUP

To access the Linux server remotely, you will need an SSH client and a VNC viewer. PuTTY is a free SSH client for Windows which you can download HERE (you only need the putty.exe file), and RealVNC is a free VNC viewer. The appropriate version of RealVNC can be downloaded HERE.

Other SSH clients or VNC viewers can be used, but the following tutorial uses PuTTY and RealVNC.

2 CONNECT TO UF NETWORK

1) It is required that you be connected to the UF network in order to access the Linux servers. If you are already connected you can continue to Section 3. Otherwise, you will need to connect to the UF network using the UF VPN.
2) To set up the UF VPN for the first time, you can navigate to this website: http://www.uflib.ufl.edu/login/vpn.html
3) Follow the instructions under the 'Install & Configure the VPN' section of the website given above in Step 2.
4) Now, you will be able to connect to the UF network when off campus by using the Cisco AnyConnect client.

3 CONNECT TO LINUX SERVER

1) Open an SSH client. In this case it will be the PuTTY application downloaded in Section 1 (putty.exe)

2) Enter linux.ece.ufl.edu under Host Name (or IP address) and set the Connection type to SSH as shown below in Fig. 1.

3) (Optional) You may find it useful to save these settings to avoid setting up the SSH connection for future use. To do this, type in a session name under Saved Sessions and click Save (In Fig. 1 the session settings are saved as 'ECE Linux Server'). Now whenever you open PuTTY, you can quickly reload these settings by selecting the desired session name and clicking Load. You can also automatically open a session by double clicking on the saved session name.
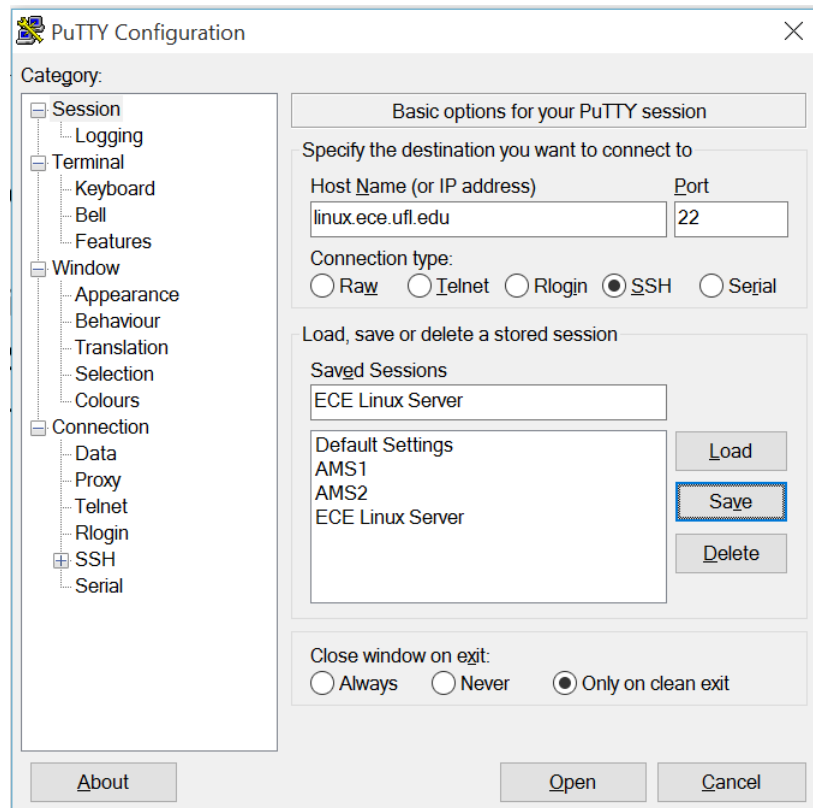

Figure 1: PuTTY Setup for Linux Server Connection

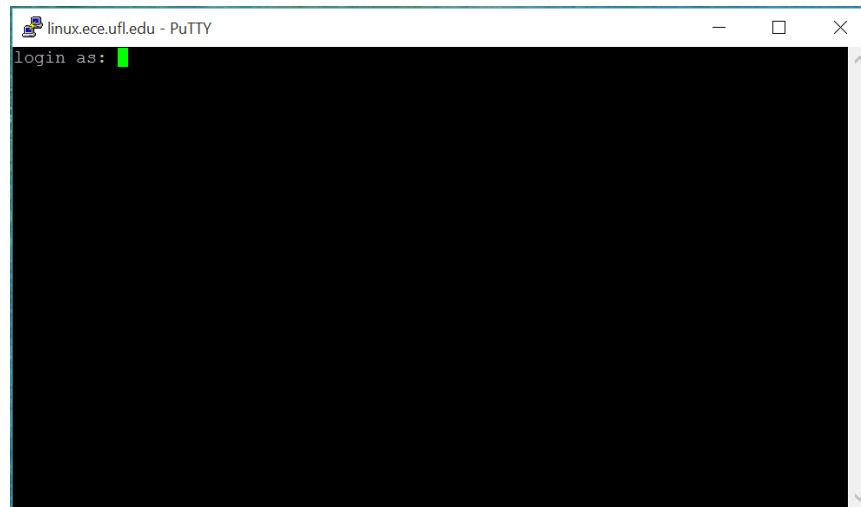4) After entering the information in Step 2, click Open. The terminal shown in Fig. 2 should open.

Figure 2: Initial SSH Connection to Linux Server

5) You will be prompted to enter your GatorLink Username and password. When entering the password you will not see any characters appear in the terminal when typing, simply hit enter when done.

6) Type in the following command: vncserver –geometry 1920x1080 –depth 24
    a. You will need to enter your own screen resolution for the –geometry option, my screen resolution in the above command is 1920x1080
    b. The above command will create a new desktop view for you to access using the VNC viewer installed in Section 1. You should receive feedback in the terminal similar to that seen in Fig. 3. The feedback will include your VNC server name, which will be used in Section 4. My VNC server name in this tutorial is: ece-n241-lnx06.ad.ufl.edu:4
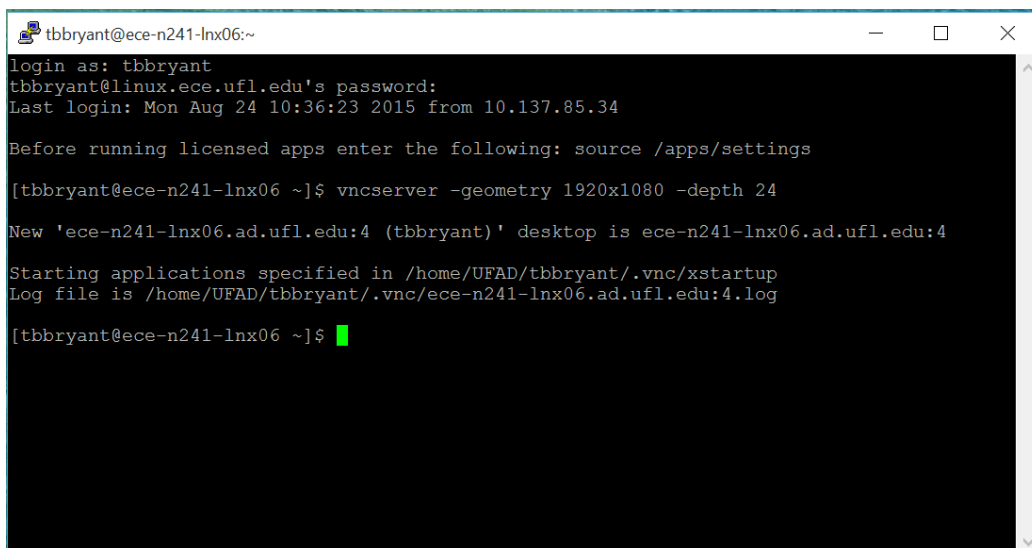

Figure 3: A VNC Server was Created to View the Linux Desktop

7) When creating a new VNC server with the command in Step 6, you may be prompted to create a password. Create and confirm your VNC server password, this will be required for any future

attempts to connect to the VNC server. Similar to Step 5, you will not see any characters appear when typing in your password.

4   VIEWING THE LINUX DESKTOP

1) Open the RealVNC viewer (or any other VNC viewer you may be using) installed in Section 1.
2) Enter your VNC server name in the VNC Server box, similar to Fig. 4. From Section 3, my VNC server name is ece-n241-lnx06.ad.ufl.edu:4. Your VNC server name will most likely be different, but should look similar.
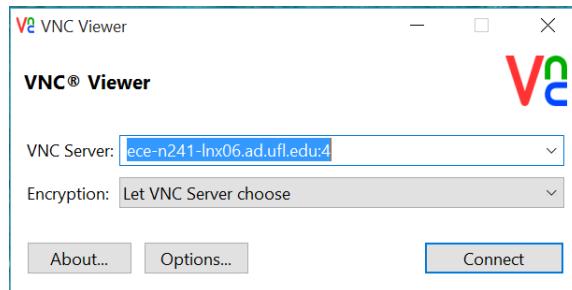

Figure 4: Connecting to the VNC Server to View the Linux Desktop

3) Click Connect. You may get a warning about an unencrypted connection, you can just click Continue.
4) You should see an authentication window appear, as in Fig. 5. Enter your password created in Step 7 of Section 3 and click OK.
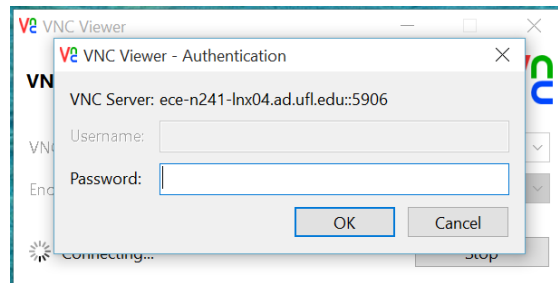

Figure 5: Authentication Request for VNC Server Connection

5) A new window will appear with your Linux Desktop view, similar to that seen in Fig. 6.

Figure 6: VNC Server Desktop View

6) You now have access to the Linux Server and the Cadence software on it.
7) To access Cadence, open the Terminal and type the following commands in order:
   a. source /apps/settings
   b. icfb &

5 TERMINATING THE VNC SERVER

1) To terminate the VNC Server, you will need to close out of your VNC viewer. Be sure to save and close any work that you have. You may choose to log out if you would like, but it is not necessary.
2) Using the PuTTY terminal that you created the VNC Server with, type in the following command: vncserver –kill VNCServerName
   a. VNCServerName should be replaced with your VNC server name. In this tutorial, it would be replaced with ece-n241-lnx06.ad.ufl.edu:4
3) If you have forgotten your VNC server name, or want to search for others that are still active, you can use the following command: ps –ef | grep vnc