# How to use SSH Tunneling to connect to viterbi-scfN with X-Windows

The following was used as a resource:

https://community.time4vps.com/discussion/120/how-to-connect-to-vnc-server-ussing-ssh-tunnel

There are three steps: 1. Establishing the tunnel, 2. running the VNC viewer.

## 1. Establishing the tunnel

Login to viterbi-scf1 or viterbi-scf2 (use putty or any ssh utility/tool).

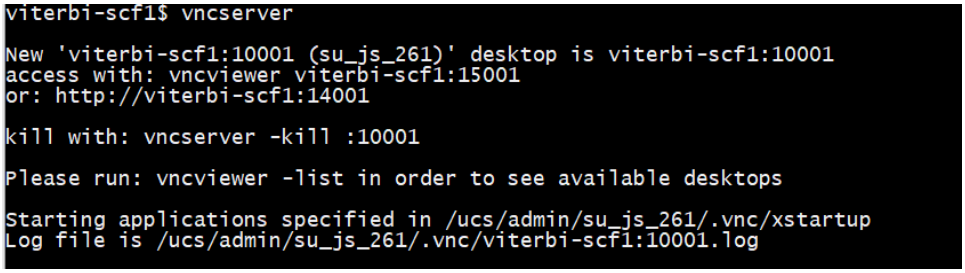
Run *vncserver*:

```
$ vncserver -geometry 1920x1080
```

You can change the resolution of your VNC using -geometry switch.

Or "vncserver -autokill" - this will terminate your *vncserver* session when you finish working.

```
$ vncserver -autokill
```




(NOTE: you'll see I used viterbi-scf1 above but used viterbi-scf2 below – you must pick one or the other, you can't use both. I'll fix this.)

You'll use the port number given with "vncviewer" - in this instance, 15001.

If you haven't run it before, it'll ask you to set a password for your sessions. This is different than your login password. It will ask you if you want a read-only password as well, but you don't need to set a read-only password unless you want someone to see your sessions. If you already set a password but don't remember what it is, do this:

```
$ rm .vnc/passwd
```

Then when you run *vncserver*, it will ask you to set a new one.

NOTE: *vncserver* will not automatically terminate unless you use the -autokill switch. You should use it unless you will be re-connecting to *vncserver* a lot. It's recommended that when you are done, manually terminate your *vncserver* session using this command:

```
$ vncserver -kill :100NN      // your vnc port number
```

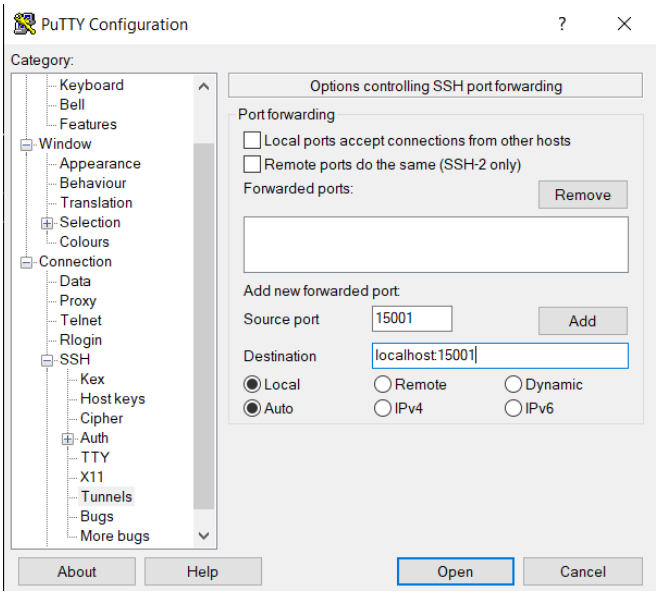
This will free up system resources for others. If you occupy many ports, there is high chance that your VNC sessions will be terminated by force by system administrators.

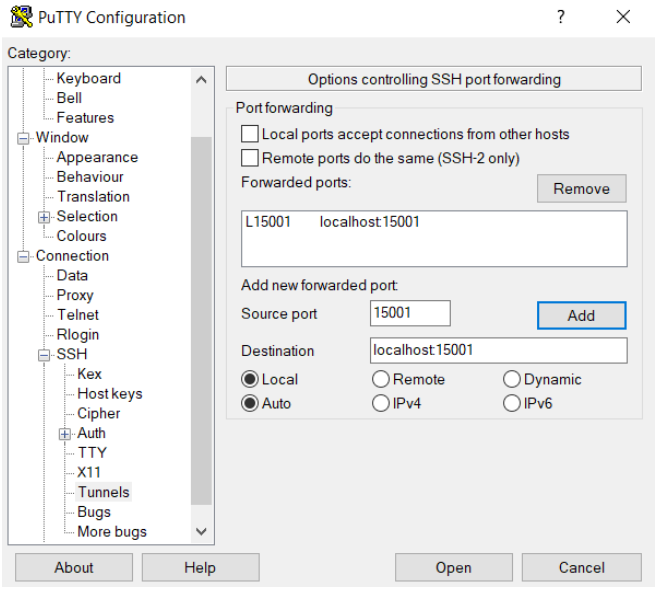
You can check your running *vncserver* processes:

```
$ vncserver -list
```

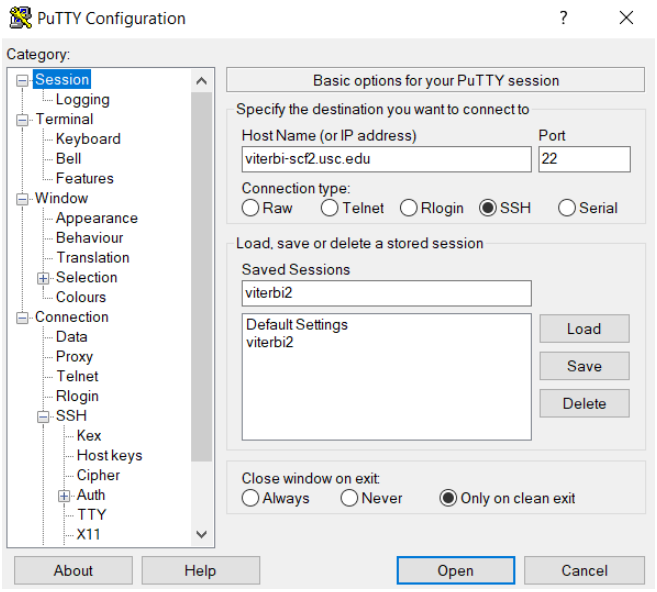
**Using Putty:**

Start putty and go to the SSH -> Tunnels pane.
Fill in the number for source and destination as below. You could use any number for source but there's no reason not to use the same number. Then hit "Add"






Go to the Session Pane and fill out as shown (viterbi-scf1 if you'd prefer)




Click "Open" - you'll get a terminal window which you can leave open and use if needed. You'll need to enter your viterbi-scf1/2 login name and password here.

**Using a Mac or Linux (instead of Putty):**

Use ssh on the command line like this:

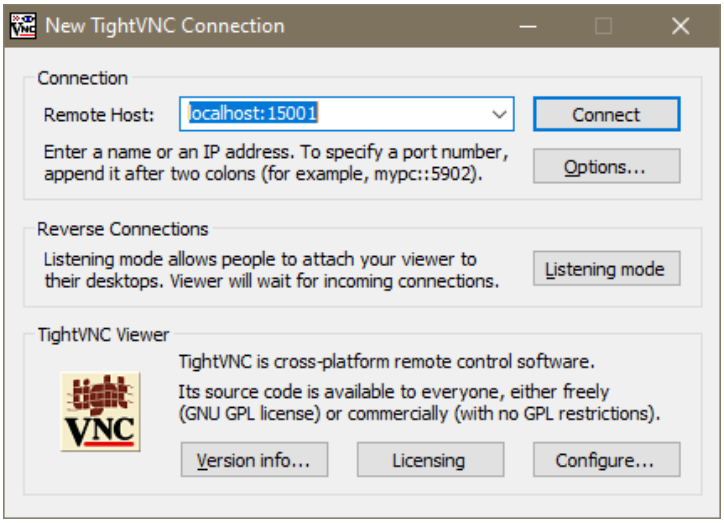
```
$ ssh -L 15001:localhost:15001 -N -f -l <your-username> viterbi-scf2.usc.edu
```

(or viterbi-scf1.usc.edu)

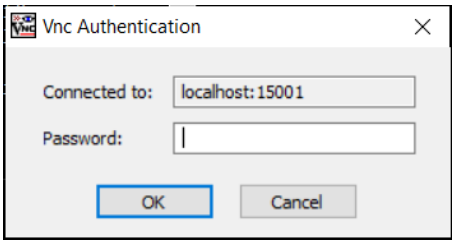
You should be prompted for a password.

## 2. Running the VNC viewer

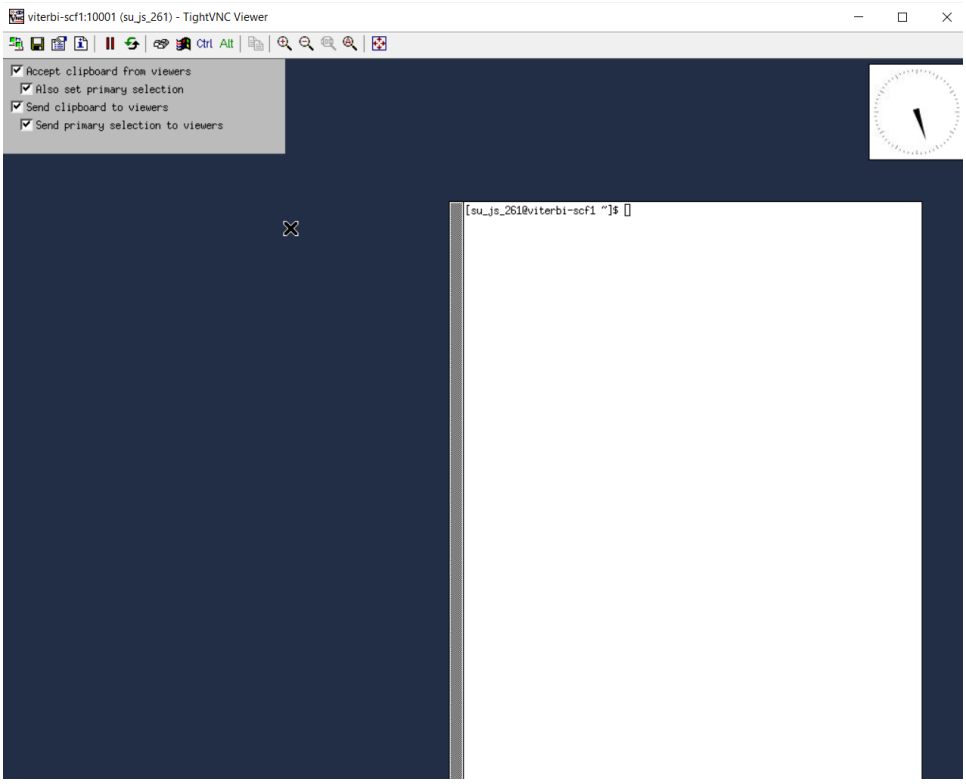
Bring up your local VNC viewer. You can use any kind of VNC viewer tools, such as VNC Viewer, TightVNC, etc. Add the remote host as shown: Hit Connect.




Here you'll enter the password you set for your X-Windows sessions.



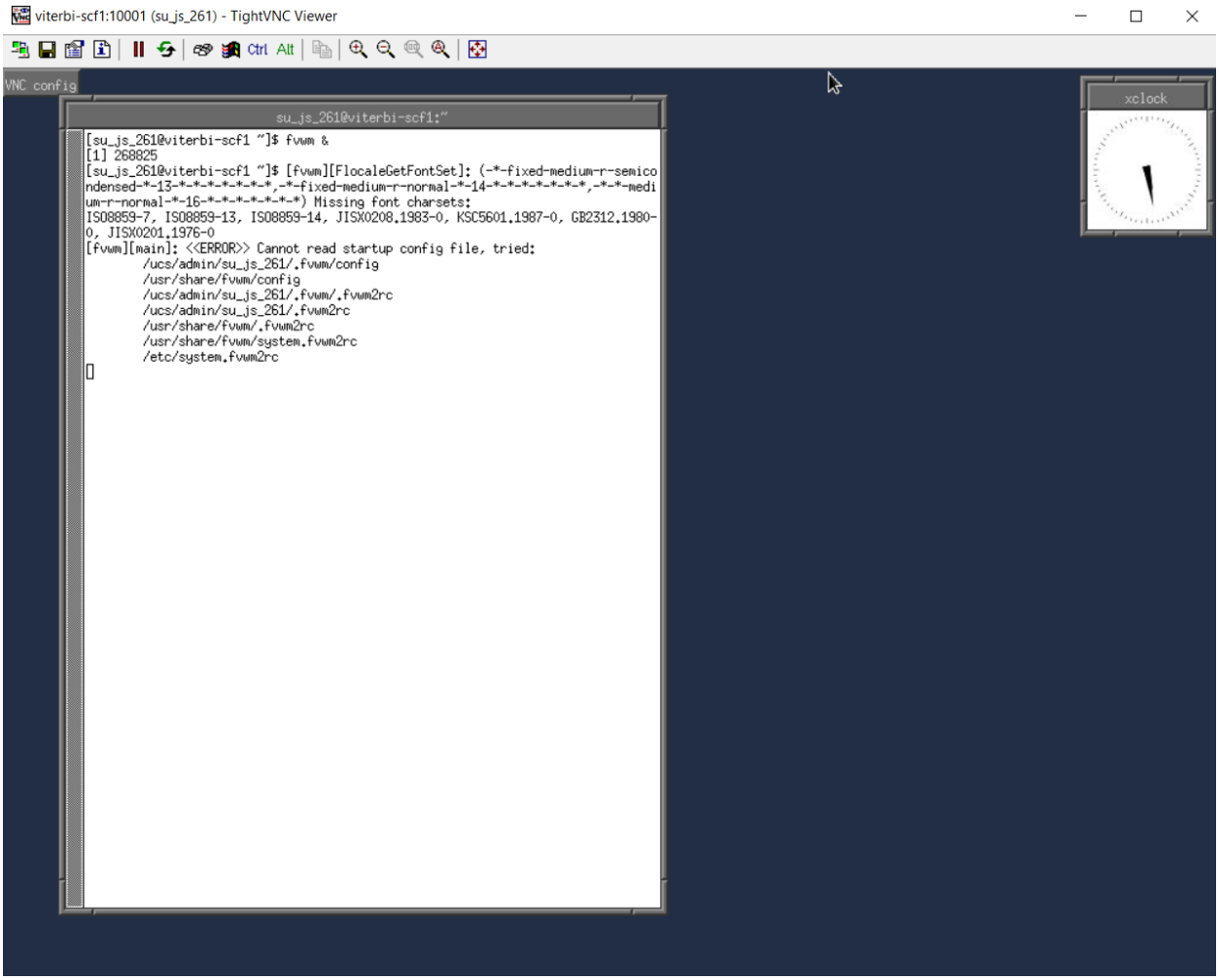
You'll get a "desktop" like this:




Right now there's no windows manager that automatically starts but we'll be fixing that. Run fvwm:

```
$ fvwm &
```

Return in that command window, and you'll be able to move things around, start more xterms, etc.




Those errors shown are not a big deal (you can ignore these), and we'll work on fixing them.

Done!