

# VNC over SSH

**eNOTE:** The [X2Go Client](#) is an easier alternative to VNC over SSH

This example is one method of setting up a secure VNC session tunneling over SSH. It assumes a VNC server has been installed on the remote system.

First SSH into the remote system configure the VNC session and start VNC server

- Run the command `vncpasswd` to create a VNC session password. It is separate than your login password, but can be set the same
  - The `vncpasswd` command can also change/reset an existing password
  - The `vncpasswd` command will create a `~/.vnc` directory if it does not exist
  - If needed, edit the file `~/.vnc/xstartup`
    - `#!/bin/sh`  
  
`unset SESSION_MANAGER`  
`unset DBUS_SESSION_BUS_ADDRESS`  
`gnome-session &`
  - Start `vncserver`
    - - Add user to `/etc/tigervnc/vncserver.users`
        - Start `vncserver` for user port: `sudo systemctl start vncserver@:x`
        - (optional) Set the `vncserver` to start on system (re)boot: `sudo systemctl enable vncserver@:x`
      - Check if any VNC ports are in use using the command '`vncserver -list`'. Any active VNC ports will be listed like `:1` or `:2`. By default VNC runs on port in the range 590x
        - Each VNC session runs on a unique port so to start on port 5902 use the command:
          - `vncserver :2 -localhost no`
          - NOTE: if VNC session is already running on port `:2`, try a higher port number like `:7` or `:8`
        - The VNC server can be stopped with the command:  
`vncserver -kill :2`
        - The VNC session resolution can be set using the `-geometry` option. Stop `vncserver` before starting a new session.
          - `vncserver -kill :2`
            - `vncserver :2 -localhost -geometry 1280x1024`

## macOS

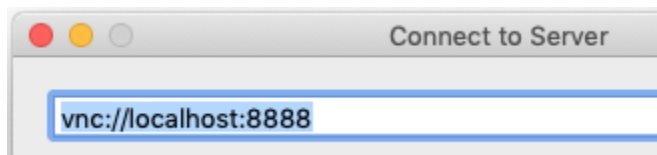
After the `vncserver` is running, on the Mac open the Terminal app in the Applications Utilities folder

Create a SSH tunnel to remote VNC session using the command:

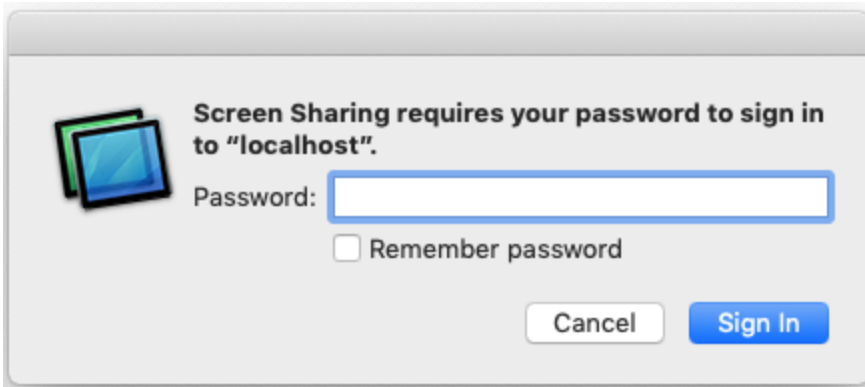
```
ssh -L 8888:127.0.0.1:5902 <username>@<servername>.ae.utexas.edu
```

- 8888 is the local port number
- 5902 is the remote VNC session port created above

Select "Connect to Server..." under the Go menu in the Finder. Enter the server name:



Enter your VNC session password

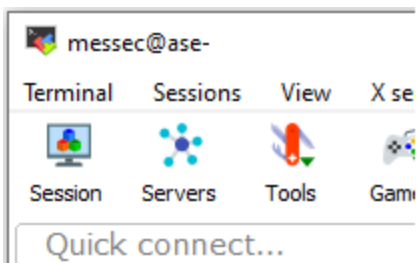


## Windows

Download and unzip [MobaXterm Home Edition \(portable edition\)](#)

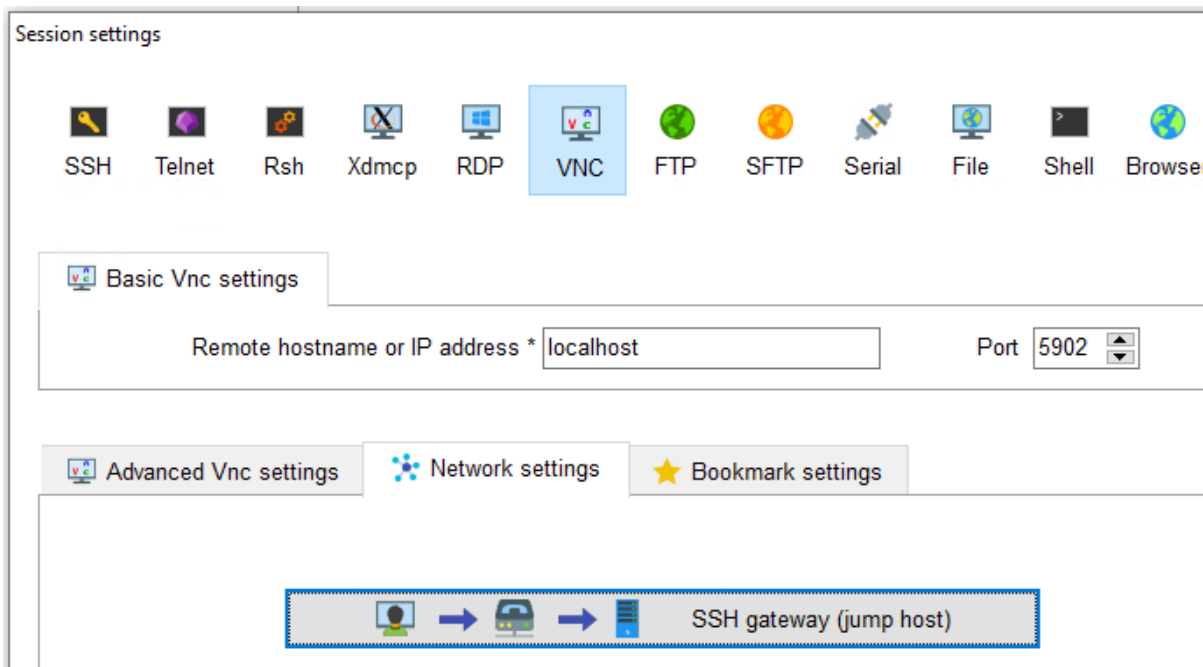
Open MobaXterm and start local terminal

After the vncserver is running, in MobaXterm select the Session icon to configure the VNC session



Select VNC and enter localhost in the remote hostname and select the port the vncserver was started on like 5902 in the set above

Select SSH gateway (jump host) under the Network settings



In the SSH jump host enter the remote system name and your login name

MobaXterm jump hosts configuration ✕

**Define one or several SSH jump hosts**  
(Jump through one or several SSH servers in order to reach your end-server)

Gateway host Username Port ☐ Use SSH key

ase[REDACTED].ae.utexas. [REDACTED] 22

⊖

Select the Bookmark settings and change the session name from localhost to the remote system name

Session settings

SSH Telnet Rsh Xdmcp RDP **VNC** FTP SFTP Serial File Shell Brow

**Basic Vnc settings**

Remote hostname or IP address \* localhost Port 5902

**Advanced Vnc settings** **Network settings** **★ Bookmark settings**

Session name: ase[REDACTED] ☒ Lock terminal title Session Icon 

When you connect (execute) the session, it will first ask for your remote system password, then ask for your vncpasswd

