Linux Terminal Server

There are several ways to create a Linux terminal server. This is only one, but it is fairly simple. It utilizes Devuan, xfce4 and the TigerVNC Server.

Pro's: Simple to set up for a few users. Each user has their own VNC port. With TigerVNC, VNC session automatically resizes.

Con's: Difficult to maintain for more than 5-10 users, as you must assign each user a separate VNC port.

Do a base install, with GUI

Do a standard Devuan install. When you are on the Software Selection screen, choose *Devuan desktop environment*, *Xfce*, *SSH server* and *standard system utilities*.

Set up

Install Packages

Install lightdm, xinetd and tigervnc server (may already be installed)

```
apt install lightdm xinetd tigervnc-standalone-server  tigervnc-viewer
```

During install, it will ask which to use, slim or lightdm. Choose lightdm.

Also, tigervnc-viewer is not required, but I use it a lot on my terminal servers.

Configure lightdm and xinetd

Edit the file **/etc/lightdm/lightdm.conf**, setting the following values to enable the XDMCP Server. This entails just removing the leading pound signs from the existing conf and changing *false* to *true*

```
[XDMCPServer]
enabled=true
port=177
```

Create a file **/etc/xinetd.d/vnc** with the following contents.

```
service baseline
{
   disabled    = no
   socket_type = stream
```

```
   protocol    = tcp
   wait        = yes
   user        = nobody
   server      = /usr/bin/Xvnc
   server_args = -inetd -once -query localhost -geometry 1024x768 -depth 16
securitytypes=none -MaxIdleTime=14400
   type        = UNLISTED
   port        = 5950
}

service user1
{
   disabled    = no
   socket_type = stream
   protocol    = tcp
   wait        = yes
   user        = nobody
   server      = /usr/bin/Xvnc
   server_args = -inetd -once -query localhost -geometry 1920x1080 -depth 16
securitytypes=none -MaxIdleTime=14400
   type        = UNLISTED
   port        = 5951
}
```

You can create as many of these stanzas as you like. The main thing is making sure each *service* name is unique, and the port associated is also. Feel free to change *server_args* to match your default, but if you are using the tightvnc viewer to make the connection, you can modify the connection at will.

Also, I start my ports at some weird number. VNC defaults to 5900, but I'm making the base 5950 in this example. That all but guarantees I will not conflict if I'm using port forwarding on the workstation to get someplace else.

Restart

I'm sure there is some set of steps I can go through to reset slim to lightdm, and I know you can tell xinetd to reset with

```
service xinetd reload
```

, but I'm lazy and just reboot the whole machine. Less time and you won't miss anything.

Test

Make a connection with the command

```
vncviewer 192.168.1.1:5950
```

, where 192.168.1.1 is changed to the IP of your server (or the DNS name). Assuming tigervnc is your viewer, you can copy/paste between your workstation and the terminal server, etc...

Going from here

Add users to the terminal server the normal way (adduser as root), then modify /etc/xinetd.d/vnc, adding a new stanza with a new port and service name, then telling the user to use that.

Also, note that the parameters I documented here are not anywhere near the full range of parameters the server accepts. See https://tigervnc.org/doc/Xvnc.html for a detailed list of available options, plus a section on how to integrate with inet.d (which I modified to use with xinet.d). The documentation is excellent, albeit a little technical.

Remember, this is just one way of doing it. You can vary what I've done here by not using the stanza's the way I did, or you can go whole hog and use the real Linux Terminal Service Project which will give your users their own copy of a virtual server every time they log in.

Have fun!

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