

Forum:[Hack Forums](#)

Thread: [\[Notorious\] VNC - Virtual Network Computing Guide + Linux Setup](#)

Cimex - February 24, 2017, 5:01 am

What is VNC?

"VNC" stands for "Virtual Network Computing", which allows users to remotely access a server and control it from another location. The VNC server transmits its keyboard, mouse and monitor information to the specified remote computer, giving the end user full control from their VNC client. VNC can be used on the majority of operating systems out there, and eventually developed to be able to control a VNC server on a Ubuntu system from a Windows computer.

Why use VNC?

To understand why you would use VNC, you have to understand its purpose. Virtual network computing makes it possible to take control of a computer over a network connection. It allows technicians and staff in businesses to be able to troubleshoot / help customers and employees with their computers remotely, meaning they do not have to travel to the physical location of the machine. Some like to call this efficiency. You can also connect and control computers on the move on your smart phone / tablet.

Setting VNC up on a Linux VPS

Many people don't realise that they can turn their Linux VPS into a GUI environment, meaning you don't have to be forced to use command-line only! For this setup, I am using Ubuntu 16.04. This should work on other versions too, but not tested. If you have any issues, let me know and I will help you further. Follow the below commands and you should be fine.

Code Command one: `apt-get update`

Command two: `apt-get install ubuntu-desktop`

Command three: `sudo apt-get install vnc4server`

Firstly, we have updated our servers to make sure all packages and dependencies are up-to-date. Secondly we've installed a desktop environment which enables the graphical interface for the server. Thirdly, we've installed a VNC server, which we will configure next.

Firstly, we will check to make sure the GUI is working. To do this, you will want to download software that allows you to remotely log into your VNC server. In this example, I will be using RealVNC. [\[link here\]](#)

Make the VNC connection open:

Code Command: `vncserver`

Open your chosen VNC software. Enter the IP address of your server, and use port 5901. Your port may be different. To verify what ports your VNC server is listening to, use the command below.

Code Command: `sudo lsof -i -P | grep -i "listen"`

Output on my server:

```
Code Xtightvnc 7639 cimex 3u IPv4 12571840 0t0 TCP *:5901 (LISTEN)
```

Verifying connectivity:

Result:

Note: if you're prompted for a password, run the command below to set a new one.

Code Command: `vncpasswd`

You can now log into your VNC server remotely, from anywhere... even your smart phone!

Grey Screen Error Fix

Just making this additional section because TheChief reminded me!

(Feb 24, 2017 07:35 AM)TheChi?f Wrote: [\[CITE\]](#) Awesome thread with detailed explanation. I just had one small question (answer to which you should probably add to the OP, since its a common problem), how does one fix the grey screen? ?

Anyway if you run into this error, then you need to edit your xstartup file which can be found in: `.vnc/xstartup`. Make sure you're in the home directory and follow the steps below

Code Command one: `sudo cp .vnc/xstartup .vnc/startup.bak`

Command two: `sudo nano .vnc/xstartup`

Change:

Code `x-window-manager &to:`

Code `gnome-session &`

If your startup file doesn't have it, then add it. You could always try installing `gnome-core` and adding the above into your `xstartup`.

Code `sudo apt-get install gnome-core`

Here is a startup config you may want to use (Without the `gnome-session` - you can add it if you want, though):

Code `#!/bin/sh`

`def`

`export XKL_XMODMAP_DISABLE=1`

`unset SESSION_MANAGER`

`unset DBUS_SESSION_BUS_ADDRESS`

`gnome-panel &`

`gnome-settings-daemon &`

`metacity &`

`nautilus &`

`gnome-terminal &`

wander is a multi dwc - February 24, 2017, 5:18 am

Minimum specs for server to run VNC? How does network play a part in smooth VNC connections?

Cimex - February 24, 2017, 5:27 am

(Feb 24, 2017 06:18 AM)neeuQ Wrote: [\[CITE\]](#) Minimum specs for server to run VNC?

There wouldn't be a definition for a minimum server specs. It all depends what you want out of it. Putting things into logical terms, your network should already be configured to take VNC servers on if that makes sense.

There's no set answers in other words. Your answer concludes to many factors... what VNC are you running and what applications are you using too?

(Feb 24, 2017 06:18 AM)neeuQ Wrote: [\[CITE\]](#) How does network play a part in smooth VNC connections?

If you had a heavy load during a VNC connection, then you want to support more bandwidth to cope with the lag. Heavy application usage means more bandwidth, so you'd have to have the appropriate network to support your needs.

With all that being said, this guide was mainly for personal use, although I can see your concerns to your questions.

TheChi?f - February 24, 2017, 6:35 am

Awesome thread with detailed explanation. I just had one small question (answer to which you should probably add to the OP, since its a common problem), how does one fix the grey screen? ?

Cimex - February 24, 2017, 7:19 am

(Feb 24, 2017 07:35 AM)TheChi?f Wrote: [\[CITE\]](#) Awesome thread with detailed explanation. I just had one small question (answer to which you should probably add to the OP, since its a common problem), how does one fix the grey screen? ?

Thank you. I have added something that may help.

archangel.dmitry - February 24, 2017, 8:09 am

Good work. I believe, "ssh -X ..." is a better option if actual desktop environment is not needed. It allows to run GUI applications remotely even on almost barebone systems. Also, ssh is safer and integrated.

mutybyte - July 24, 2017, 12:18 am

Bookmarked it and posting to read later. Looking very good tutorial :D