**Network setup info Ubuntu**

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Checking what has been installed on Ubuntu with ***grep " install " /var/log/dpkg.log\****

Unlike CentOS, Ubuntu is not a rpm-based distribution so certain commands like ***rpm -qa –last*** won’t work for installed programs. For Ubuntu there are a few ways to do this, such as using the command ***dpkg -1*** and ***grep " install " /var/log/dpkg.log\*.*** Both these commands work for what’s been installed but are slightly different as ***grep " install " /var/log/dpkg.log\*.***  will show date and name where ***dpkg -1*** is more in depth with the programs as it displays the description, architecture and more. Also ***dpkg -1*** is using the package manager where the other command is simply parsing the log which contains when and what was installed by the manager. Now both commands are sufficient, but with more power tools they shine as you can filter the data a lot better. Below will be sample outputs of both commands for better understanding.

***grep " install " /var/log/dpkg.log\*.***

Text

Description automatically generated

***dpkg -1***

Text

Description automatically generated

**Networking info helpful to Ubuntu**

**Ubuntu version: Ubuntu 20.04.5 LTS**

Knowing your CentOS or any distros version is important as you can run into countless issues:

Version specific security issues/breaches

Compatibility issues that can affect programs dependencies etc

Newer programs not running properly.

System hardware needs + version specific support

Harder Troubleshooting with distro nonspecifics

For more information on why a distro version is vital check out: <https://www.redhat.com/en/topics/linux/whats-the-best-linux-distro-for-you#:~:text=With%20an%20enterprise%20distro%2C%20you,management%20of%20Linux%20software%20packages.>

**Network Manager + Netplan**   
 Ubuntu by default uses ***NetworkManager*** as a primary tool. ***NetworkManager*** has a great interface that allows network connectivity and does network management. Location of the configuration is ‘***/etc/NetworkManager/***’. This file can have Ips, routing tables DNS servers etc.

Any version after Ubuntu 17.1 will now have ***Netplan*** preinstalled, which is another useful tool. ***Netplan*** uses YAML files to configure which can include updates to the network interfaces, routing, and other network settings. ***Netplan*** works alongside ***NetworkManager*** + ***systemcd-networkd***

**Systemcd-networkd**

***Systemcd-networkd*** is a wonderful service a lot of distros also use for management. This service offers all kinds of network support features such as Device management, specific Network profiles that are switchable. Network integration is another big benefit given here as it also ties in with Linux and its standard kernel route tables and other network info. More about this service can be found below:

<https://wiki.archlinux.org/title/systemd-networkd>

**Ubuntu Network scripts**

Ubuntu doesn’t use to many scripts when it comes to setup for the network, however in conjunction with the package ***ifupdowns*** scripts can be used to configure the network. If needed, here more info:

<https://www.computerhope.com/unix/ifup.htm>

**"/etc/systemd/resolved.conf"**

This location in Ubuntu is important as it holds key configurations such as your DNS, Domains etc. The config file here is super helpful when configuring your DNS as you can open up any text editor such as vim or nano to change it as you, please.

**Ubuntu preinstalled** network **tools**

**Tcpdump**

Tcpdump is another great command line tool like Wireshark where you would see traffic in real time. Super super great for intime diagnostics/network checking.

**ip**

Can be used to view and modify the network; ***ip addr show*** will give you netmask hardware addresses and more. For more helpful info: <https://linuxize.com/post/linux-ip-command/>

**Ifconfig**

Is primarily used to edit and look at network interfaces: ***ifconfig eth0*** can be used to change ip addresses and the net mask. More info : [https://www.ibm.com/docs/en/aix/7.1?topic=i-ifconfig-command](https://www.javatpoint.com/ping-command-in-linux#:~:text=Ping%20is%20short%20for%20Packet,reply%20from%20the%20host%2Fserver.)

**Netstat**

Displays data regarding active network connections tables and ports as well***: netstat -a*** will show all active connections and listening ports. More about how Netstat works here: <https://www.redhat.com/sysadmin/netstat#:~:text=The%20network%20statistics%20(%20netstat%20)%20command,common%20uses%20for%20this%20command.>

**Wireshark**

As Wireshark is in the default repository for Ubuntu, installing this tool would be helpful for network management. Wireshark provides real time network tracking; this is great for real time diagnostics and troubleshooting. Could help test to see if new setting work properly etc.

**Note:** They are a few more useful Network tools/Managers, but here are a few important ones. For a list of what Ubuntu fully has go here:

[https://phoenixnap.com/kb/configure-Ubuntu-network-settings](https://phoenixnap.com/kb/configure-centos-network-settings)

[https://www.redswitches.com/blog/Ubuntu-7-network-config/](https://www.redswitches.com/blog/centos-7-network-config/)

**Here is an example of what a sample output of a Network Script could look like in Ubuntu:**

Text

Description automatically generated