Computer Science
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Plotnick's Treasure Trove of IP Commands

There are a number of command line utilities in LINUX/UNIX that you can use to check the status of your network, test your network, and perform other tasks as needed. Learning how to use these commands can be confusing since there are dozens of options that each command has. However, a basic understanding of IP networking requires that you learn only a few of these commands. Most of these commands will have similar uses on Windows and Mac computers. In fact, all of the LINUX/UNIX commands should be nearly exactly the same on a Mac. Mac users will need to be able to get to their Terminal application in order to use them.

ip addr show

Like the command seems to suggest, this will return the IP address of your computer.
Run this command and record the results, you will need this information later!

ping

The simplest and one of the most powerful commands is ping. It allows you to test connectivity. In other words, can I "see" another computer somewhere on the network?

ping 127.0.0.1

127.0.0.1 is a special reserved IP address. If this command is successful, it indicates if you IP networking software is active.

ping ---.----.---.----

Don't use dashes, simply substitute the numbers you got from the **ip addr show** command earlier.

So far, you have only tested the network card in the server, let's try to go off the reservation.

ping www.whatever.com

Just enter the ping command and follow it with the name of any web server you like to visit.

Route

Another important command to explore is the **route**. This command allows you to determine more information about your network. One critical element to discover is the gateway address.

route -n

http://www.cyberciti.biz/faq/how-to-find-gateway-ip-address/

DNS

The other critical information for our network exploration is the IP address of the DNS server. The address of the DNS server is typically assigned during the DHCP process that I discussed earlier. We will discover this by using the **cat** command.

cat /etc/resolv.conf

Traceroute

This command will reveal the path that a packet will navigate from your computer to anywhere. When you execute this command, you will discover that a single packet will travel through dozens of networks on its journey. It will uncover a whole wealth of information!

First, try the **traceroute** to the DNS server address.

Next, try the **traceroute** command to any web server you normally visit.

http://askubuntu.com/questions/189713/what-is-the-equivalent-of-the-tracert-dos-command