

NETWORKING AND NAME RESOLUTION

UNIX Commands

Some common UNIX commands to research and become proficient with are:

COMMON UNIX

dig
finger
getent
host
hostname
ifconfig
ip
netstat
nslookup
ping/traceroute
route
ss
telnet

Network Configurations

Solaris 10+

File	Description	
/etc/inet/ipnodes	Stores the system's IP address(es)	
/etc/hosts	Local name resolution file	
/etc/defaultrouter	Specifies the gateway	
/etc/hostname.xx	Configuration for a specific (xx) interface	
/etc/nodename	Hostname of the local system	
/etc /netmasks	Stores the netmasks for each network	
/etc/resolv.conf	DNS Server information	



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/etc/protocols	Stores known protocols	
/etc/services	Stores well-known ports	

Redhat / CentOS

File	Description		
/etc/sysconfig/network- scripts/ifcfg-xxx	Configuration of interface xxx: IP address [or enable the Dynamic Host Configuration Protocol (DHCP)] and Netmask		
/etc/sysconfig/network- scripts/route-xxx	Configuration of static network routes for interface xxx. This file is not required.		
/etc/sysconfig/network	Gateway (if not DHCP), Hostname		
/etc/hosts	Local Name Resolution		
/etc/resolv.conf	DNS Server information		
/etc/protocols	Stores protocols and ports		

Recommended Readings

- Linux Network Administrator's Guide 2nd Edition (Chapter 14, The Network File System)
- Unix Network Programming, Volume 1: The Sockets Networking API (3rd Edition)

Recommended Internet Sites

- Man (manual) pages can easily be found with any search engine using the format "<topic> manpage"
- RFCs can also be found with "RFC <RFC NUMBER>"
- Linux Network Administrators Guide: https://web.archive.org/web/20160809114714/http://www.tldp.org/LDP/nag2/nag2.pdf
- Linux Networking Wiki Book: https://web.archive.org/web/20160809115009/https://en.wikibooks.org/wiki/Linux_Networking
- Red Hat Enterprise Linux Deployment Guide Section III. Network-Related Configuration: https://web.archive.org/web/20160726221109/https://www.centos.org/docs/5/html/Deployment_Guide-en-US/ch-networkscripts.html
- Netstat: Network Analysis and Troubleshooting: https://linuxacademy.com/blog/linux/netstat-network-analysis-and-troubleshooting-explained/

Please contact the Course Coordinators if you are unable to access any of the Recommended Internet Sites.