System Information

General

Linux system information uname -a cat /etc/redhat-release Linux distribution version hostname System host name hostname -I System IP address

Display network interfaces and ip address ifconfig -a

Current date and time date

Display who is logged into the server

Who are you logged in as whoami

Hardware

free -h Display free and used RAM/Memory df -h Display free and used space in file system Display the disk partitions size and types fdisk -l du -ah Display the disk usage for all files and directories

File and Directory Commands

Navigation

pwd Display the current working directory

cd .. Go up one level

Go to your home directory cd

Go to the Downloads directory inside your home directory cd /Downloads

cd /dev/null Navigate to the /dev/null directory

Files

ls -al Display all files in detail Remove/delete a file rm file_name

Recursively remove a directory and its contents rm -r directory_name

cp file1 file2 Copy file1 to file2

Copy source recursively to destination cp -r source_dir destination

Move file1 to file2 mv file1 file2

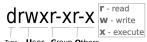
ln -s /path/to/file linkname Create a symbolic link to linkname

Creates and empty file or updates the access info touch file_name

See the contents of a file cat file less file Scroll through the file Display the first 10 lines head file tail file Display the last 10 lines

tail -f file -f follows the file as it is appended too

File Permissions



Type indicates the file type. The most common values are:

file

d directory

symbolic link

Groups are collections of users. You can view the groups you belong too as follows:

Displays the user and group ids of the current user Others or World permissions Displays the groups of the current user

apply to any user on the system.

Permissions can be assigned as numbers or as characters.

4 2 1

no permissions only write write and execute only read read and execute r w - read and write r w x read, write and execute

chmod 777 file_name Assigns rwx permissions to all three levels for file_name

chmod 760 file_name Assigns rwx to user, rw- to group and — (no permissions) to other

Assigns rw- to users, r- to groups and others chmod 644 file name

Use 777 carefully Note

chgrp group_name file_name Change the group to group_name for file_name

chgrp -R group_name directory Change the group recursively to directory and subdirectories

Searching

grep pattern file_name Find the pattern in file_name

grep -r pattern directory Find the pattern recursively in directory Find files and directories by name locate pattern

find -name 'notes*' find files in your home directory starting with notes

Archiving Files

tar czf archive.tar.gz directory Create a gzip tar file named archive.tar.gz

tar xzf archive.tar.gz Extract a gzip tar file

Note Remove the z to create/extract a normal tar file.

Process Management

ps -eF List all processes on the system

Print the process tree ps -ejH

List information about threads ps -eLF Prints information on process_name ps -eF | grep process_name Display the top processes - q to quit top kill -9 PID

Kills the process with id PID

Starts the application program in the background program & Lists the stopped and background processes bg

Brings the most recent background process to the foreground fg

SSH

Usage

ssh host Connect to the host as your local username

Connect to host as user ssh user@host

ssh -p 999 user@host Connect to host at port 999 as user

Key Generation

ssh-keygen .. Generate ssh key

4096 bit OpenSSH formatted RSA key -t rsa -b 4096 -o

Alternative to above using EdDSA encryption - OpenSSH 6.5+ -t ed25519 100 rounds of key derivations, makes password hard to break -a 100

-f /.ssh/id_rsa_\$(date +%Y-%m-%d) file name for the key in the .ssh directry

-C "Key for yeats" Comment related to the key Use a strong passphrase Note

Adding Keys

Transfering Files

Getting help

man command_name Displays the manual page for the command

Google it Search Google or stackexchange