## **Linux Command Line: System information**

Command	Description
# arch	show architecture of machine(1) [man]
# cal 2007	show the timetable of 2007 [man]
# cat /proc/cpuinfo	show information CPU info [man]
# cat /proc/interrupts	show interrupts [man]
# cat /proc/meminfo	verify memory use [man]
# cat /proc/swaps	show file(s) swap [man]
# cat /proc/version	show version of the kernel [man]
# cat /proc/net/dev	show network adpters and statistics [man]
# cat /proc/mounts	show mounted file system(s) [man]
# clock -w	save date changes on BIOS [man]
# date	show system date [man]
# date 041217002007.00	set date and time - MonthDayhoursMinutesYear.Seconds [man]
# dmidecode -q	show hardware system components - (SMBIOS / DMI) [man]
# hdparm -i /dev/hda	displays the characteristics of a hard-disk [man]
# hdparm -tT /dev/sda	perform test reading on a hard-disk [man]
# lspci -tv	display PCI devices [man]
# lsusb -tv	show USB devices [man]
# uname -m	show architecture of machine(2) [man]
# uname -r	show used kernel version [man]

# Linux Command Line: Shutdown, Restart and Logout of a system

Command	Description
# init 0	shutdown system(2) [man]
# logout	leaving session [man]
# reboot	reboot(2) [man]
# shutdown -h now	shutdown system(1) [man]
# shutdown -h 16:30 &	planned shutdown of the system at 16:30 [man]
# shutdown -c	cancel a planned shutdown of the system [man]
# shutdown -r now	reboot(1) [man]
# telinit 0	shutdown system(3) [man]

#### **Linux Command Line: Files and Directory**

Command	Description
# cd /home	enter to directory '/ home' [man]
# cd	go back one level [man]
# cd/	go back two levels [man]
# cd	go to home directory [man]
# cd ~user1	go to home directory [man]
# cd -	go to previous directory [man]
# cp file1 file2	copying a file [man]
# cp dir/*.	copy all files of a directory within the current work directory [man]
# cp -a /tmp/dir1.	copy a directory within the current work directory [man]
# cp -a dir1 dir2	copy a directory [man]
# cp file file1	outputs the mime type of the file as text [man]
# iconv -l	lists known encodings [man]
<pre># iconv -f fromEncoding -t toEncoding inputFile &gt; outputFile</pre>	converting the coding of characters from one format to another [man]
# findmaxdepth 1 -name *.jpg -print -exec convert	batch resize files in the current directory and send them to a thumbnails directory (requires convert from Imagemagick) [man]
# ln -s file1 lnk1	create a symbolic link to file or directory [man]
# ln file1 lnk1	create a physical link to file or directory [man]
# ls	view files of directory [man]
# ls -F	view files of directory [man]
# ls -l	show details of files and directory [man]
# ls -a	show hidden files [man]
# ls *[0-9]*	show files and directory containing numbers [man]
# lstree	show files and directories in a tree starting from root(2) [man]
# mkdir dir1	create a directory called 'dir1' [man]
# mkdir dir1 dir2	create two directories simultaneously [man]
# mkdir -p /tmp/dir1/dir2	create a directory tree [man]
# mv dir1 new_dir	rename / move a file or directory [man]
# pwd	show the path of work directory [man]
# rm -f file1	delete file called 'file1' [man]
# rm -rf dir1	remove a directory called 'dir1' and contents recursively [man]
# rm -rf dir1 dir2	remove two directories and their contents recursively [man]

# rmdir dir1	delete directory called 'dir1' [man]
# touch -t 0712250000 file1	modify timestamp of a file or directory - (YYMMDDhhmm) [man]
# tree	show files and directories in a tree starting from root(1) [man]

## **Linux Command Line: File search**

Command	Description
# find / -name file1	search file and directory into root filesystem from '/' [man]
# find / -user user1	search files and directories belonging to 'user1' [man]
# find /home/user1 -name \*.bin	search files with '. bin' extension within directory '/ home/user1' [man]
# find /usr/bin -type f -atime +100	search binary files are not used in the last 100 days [man]
# find /usr/bin -type f -mtime -10	search files created or changed within 10 days [man]
# find / -name *.rpm -exec chmod 755 '{}' \;	search files with '.rpm' extension and modify permits [man]
# find / -xdev -name \*.rpm	search files with '.rpm' extension ignoring removable partitions as cdrom, pen-drive, etc [man]
# locate \*.ps	find files with the '.ps' extension - first run 'updatedb' command [man]
# whereis halt	show location of a binary file, source or man [man]
# which halt	show full path to a binary / executable [man]

## **Linux Command Line: Mounting a Filesystem**

Command	Description
# fuser -km /mnt/hda2	force umount when the device is busy [man]
# mount /dev/hda2 /mnt/hda2	mount disk called hda2 - verify existence of the directory '/mnt/hda2' [man]
# mount /dev/fd0 /mnt/floppy	mount a floppy disk [man]
# mount /dev/cdrom /mnt/cdrom	mount a cdrom / dvdrom [man]
# mount /dev/hdc /mnt/cdrecorder	mount a cdrw / dvdrom [man]
# mount /dev/hdb /mnt/cdrecorder	mount a cdrw / dvdrom [man]
# mount -o loop file.iso /mnt/cdrom	mount a file or iso image [man]
# mount -t vfat /dev/hda5 /mnt/hda5	mount a Windows FAT32 file system [man]
# mount /dev/sda1 /mnt/usbdisk	mount a usb pen-drive or flash-drive [man]
# mount -t smbfs -o username=user,password=pass //WinClient/share /mnt/share	mount a windows network share [man]
# umount /dev/hda2	unmount disk called hda2 - exit from mount point '/mnt/hda2' first [man]

# umount -n /mnt/hda2	run umount without writing the file /etc/mtab - useful when
	the file is read-only or the hard disk is full [man]

## **Linux Command Line: Disk Space**

Command	Description
# df -h	show list of partitions mounted [man]
# dpkg-query -W -f='\${Installed-Size;10}t\${Package}n'   sort -k1,1n	show the used space by installed deb packages, sorting by size (debian, ubuntu and alike) [man]
# du -sh dir1	estimate space used by directory 'dir1' [man]
# du -sk *   sort -rn	show size of the files and directories sorted by size [man]
# ls -lSr  more	show size of the files and directories ordered by size [man]
# rpm -q -aqf '%10{SIZE}t%{NAME}n'   sort -k1,1n	show the used space by rpm packages installed sorted by size (fedora, redhat and alike) [man]

#### **Linux Command Line: Users and Groups**

Command	Description
# chage -E 2005-12-31 user1	set deadline for user password [man]
# groupadd [group]	create a new group [man]
# groupdel [group]	delete a group [man]
# groupmod -n moon sun	rename a group from moon to sun [man]
# grpck	check correct syntax and file format of '/etc/group' and groups existence [man]
# newgrp - [group]	log into a new group to change default group of newly created files [man]
# passwd	change password [man]
# passwd user1	change a user password (only by root) [man]
# pwck	check correct syntax and file format of '/etc/passwd' and users existence [man]
# useradd -c "User Linux" -g admin -d /home/user1 -s /bin/bash user1	create a new user "user1" belongs "admin" group [man]
# useradd user1	create a new user [man]
# userdel -r user1	delete a user ('-r' eliminates home directory) [man]
# usermod -c "User FTP" -g system -d /ftp/user1 -s /bin/nologin user1	change user attributes as description, group and other [man]

## **Linux Command Line: Permits on Files**

Command	Description
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# chgrp group1 file1	change group of files [man]
# chmod ugo+rwx directory1	set permissions reading (r), write (w) and (x) access to users owner (u) group (g) and others (o) [man]
# chmod go-rwx directory1	remove permits reading (r), write (w) and (x) access to users group (g) and others (or [man]
# chmod u+s /bin/file1	set SUID bit on a binary file - the user that running that file gets same privileges as owner [man]
# chmod u-s /bin/file1	disable SUID bit on a binary file [man]
# chmod g+s /home/public	set SGID bit on a directory - similar to SUID but for directory [man]
# chmod g-s /home/public	disable SGID bit on a directory [man]
# chmod o+t /home/public	set STIKY bit on a directory - allows files deletion only to legitimate owners [man]
# chmod o-t /home/public	disable STIKY bit on a directory [man]
# chown user1 file1	change owner of a file [man]
# chown -R user1 directory1	change user owner of a directory and all the files and directories contained inside [man]
# chown user1:group1 file1	change user and group ownership of a file [man]
# find / -perm -u+s	view all files on the system with SUID configured [man]
# ls -lh	show permits on files [man]
# ls /tmp   pr -T5 -W\$COLUMNS	divide terminal into 5 columns [man]

# Linux Command Line: <u>Special Attributes on files</u>

Command	Description
# chattr +a file1	allows write opening of a file only append mode [man]
# chattr +c file1	allows that a file is compressed / decompressed automatically by the kernel [man]
# chattr +d file1	makes sure that the program ignores Dump the files during backup [man]
# chattr +i file1	makes it an immutable file, which can not be removed, altered, renamed or linked [man]
# chattr +s file1	allows a file to be deleted safely [man]
# chattr +S file1	makes sure that if a file is modified changes are written in synchronous mode as with sync [man]
# chattr +u file1	allows you to recover the contents of a file even if it is canceled [man]
# lsattr	show specials attributes [man]

# **Linux Command Line:** <u>Archives and compressed files</u>

Command	Description
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# bunzip2 file1.bz2	decompress a file called 'file1.bz2' [man]
# bzip2 file1	compress a file called 'file1' [man]
# gunzip file1.gz	decompress a file called 'file1.gz' [man]
# gzip file1	compress a file called 'file1' [man]
# gzip -9 file1	compress with maximum compression [man]
# rar a file1.rar test_file	create an archive rar called 'file1.rar' [man]
# rar a file1.rar file1 file2 dir1	compress 'file1', 'file2' and 'dir1' simultaneously [man]
# rar x file1.rar	decompress rar archive [man]
# tar -cvf archive.tar file1	create a uncompressed tarball [man]
# tar -cvf archive.tar file1 file2 dir1	create an archive containing 'file1', 'file2' and 'dir1' [man]
# tar -tf archive.tar	show contents of an archive [man]
# tar -xvf archive.tar	extract a tarball [man]
# tar -xvf archive.tar -C /tmp	extract a tarball into / tmp [man]
# tar -cvfj archive.tar.bz2 dir1	create a tarball compressed into bzip2 [man]
# tar -xvfj archive.tar.bz2	decompress a compressed tar archive in bzip2 [man]
# tar -cvfz archive.tar.gz dir1	create a tarball compressed into gzip [man]
# tar -xvfz archive.tar.gz	decompress a compressed tar archive in gzip [man]
# unrar x file1.rar	decompress rar archive [man]
# unzip file1.zip	decompress a zip archive [man]
# zip file1.zip file1	create an archive compressed in zip [man]
# zip -r file1.zip file1 file2 dir1	compress in zip several files and directories simultaneously [man]

## Linux Command Line: RPM Packages (Fedora, Red Hat and like)

Command	Description
# rpm -ivh [package.rpm]	install a rpm package [man]
# rpm -ivhnodeeps [package.rpm]	install a rpm package ignoring dependencies requests [man]
# rpm -U [package.rpm]	upgrade a rpm package without changing configuration files [man]
# rpm -F [package.rpm]	upgrade a rpm package only if it is already installed [man]
# rpm -e [package]	remove a rpm package [man]
# rpm -qa	show all rpm packages installed on the system [man]
# rpm -qa   grep httpd	show all rpm packages with the name "httpd" [man]
# rpm -qi [package]	obtain information on a specific package installed [man]
# rpm -qg "System Environment/Daemons"	show rpm packages of a group software [man]

# rpm -ql [package]	show list of files provided by a rpm package installed [man]
# rpm -qc [package]	show list of configuration files provided by a rpm package installed [man]
# rpm -q [package]whatrequires	show list of dependencies required for a rpm packet [man]
# rpm -q [package]whatprovides	show capability provided by a rpm package [man]
# rpm -q [package]scripts	show scripts started during installation / removal [man]
# rpm -q [package]changelog	show history of revisions of a rpm package [man]
# rpm -qf /etc/httpd/conf/httpd.conf	verify which rpm package belongs to a given file [man]
# rpm -qp [package.rpm] -l	show list of files provided by a rpm package not yet installed [man]
# rpmimport /media/cdrom/RPM-GPG-KEY	import public-key digital signature [man]
# rpmchecksig [package.rpm]	verify the integrity of a rpm package [man]
# rpm -qa gpg-pubkey	verify integrity of all rpm packages installed [man]
# rpm -V [package]	check file size, permissions, type, owner, group, MD5 checksum and last modification [man]
# rpm -Va	check all rpm packages installed on the system - use with caution [man]
# rpm -Vp [package.rpm]	verify a rpm package not yet installed [man]
# rpm -ivh /usr/src/redhat/RPMS/`arch`/[package.rpm]	install a package built from a rpm source [man]
# rpm2cpio [package.rpm]   cpioextractmake-directories *bin*	extract executable file from a rpm package [man]
# rpmbuildrebuild [package.src.rpm]	build a rpm package from a rpm source [man]

## Linux Command Line: YUM packages tool (Fedora, RedHat and alike)

Command	Description
# yum -y install [package]	download and install a rpm package [man]
# yum localinstall [package.rpm]	That will install an RPM, and try to resolve all the dependencies for you using your repositories. [man]
# yum -y update	update all rpm packages installed on the system [man]
# yum update [package]	upgrade a rpm package [man]
# yum remove [package]	remove a rpm package [man]
# yum list	list all packages installed on the system [man]
# yum search [package]	find a package on rpm repository [man]
# yum clean [package]	clean up rpm cache erasing downloaded packages [man]
# yum clean headers	remove all files headers that the system uses to resolve dependency [man]
# yum clean all	remove from the cache packages and headers files [man]

## Linux Command Line: <u>DEB packages (Debian, Ubuntu and like)</u>

Command	Description
# dpkg -i [package.deb]	install / upgrade a deb package [man]
# dpkg -r [package]	remove a deb package from the system [man]
# dpkg -l	show all deb packages installed on the system [man]
# dpkg -l   grep httpd	show all deb packages with the name "httpd" [man]
# dpkg -s [package]	obtain information on a specific package installed on system [man]
# dpkg -L [package]	show list of files provided by a package installed on system [man]
# dpkgcontents [package.deb]	show list of files provided by a package not yet installed [man]
# dpkg -S /bin/ping	verify which package belongs to a given file [man]

## Linux Command Line: APT packages tool (Debian, Ubuntu and alike)

Command	Description
# apt-cache search [package]	returns list of packages which corresponds string "searched-packages" [man]
# apt-cdrom install [package]	install / upgrade a deb package from cdrom [man]
# apt-get install [package]	install / upgrade a deb package [man]
# apt-get update	update the package list [man]
# apt-get upgrade	upgrade all of the installed packages [man]
# apt-get remove [package]	remove a deb package from system [man]
# apt-get check	verify correct resolution of dependencies [man]
# apt-get clean	clean up cache from packages downloaded [man]

## **Linux Command Line: View file content**

Command	Description
# cat file1	view the contents of a file starting from the first row [man]
# head -2 file1	view first two lines of a file [man]
# less file1	similar to 'more' command but which allows backward movement in the file as well as forward movement [man]
# more file1	view content of a file along [man]
# tac file1	view the contents of a file starting from the last line [man]
# tail -2 file1	view last two lines of a file [man]

view in real time what is added to a file [man]

## **Linux Command Line: Text Manipulation**

Command	Description
# cat example.txt   awk 'NR%2==1'	remove all even lines from example.txt [man]
# echo a b c   awk '{print \$1}'	view the first column of a line [man]
# echo a b c   awk '{print \$1,\$3}'	view the first and third column of a line [man]
# cat -n file1	number row of a file [man]
# comm -1 file1 file2	compare contents of two files by deleting only unique lines from 'file1' [man]
# comm -2 file1 file2	compare contents of two files by deleting only unique lines from 'file2' [man]
# comm -3 file1 file2	compare contents of two files by deleting only the lines that appear on both files [man]
# diff file1 file2	find differences between two files [man]
# grep Aug /var/log/messages	look up words "Aug" on file '/var/log/messages' [man]
# grep ^Aug /var/log/messages	look up words that begin with "Aug" on file '/var/log/messages' [man]
# grep [0-9] /var/log/messages	select from file '/var/log/messages' all lines that contain numbers [man]
# grep Aug -R /var/log/*	search string "Aug" at directory '/var/log' and below [man]
# paste file1 file2	merging contents of two files for columns [man]
# paste -d '+' file1 file2	merging contents of two files for columns with '+' delimiter on the center [man]
# sdiff file1 file2	find differences between two files and merge interactively alike "diff" [man]
# sed 's/string1/string2/g' example.txt	replace "string1" with "string2" in example.txt [man]
# sed '/^\$/d' example.txt	remove all blank lines from example.txt [man]
# sed '/ *#/d; /^\$/d' example.txt	remove comments and blank lines from example.txt [man]
# sed -e '1d' exampe.txt	eliminates the first line from file example.txt [man]
# sed -n '/string1/p'	view only lines that contain the word "string1" [man]
# sed -e 's/ *\$//' example.txt	remove empty characters at the end of each row [man]
# sed -e 's/string1//g' example.txt	remove only the word "string1" from text and leave intact all [man]
# sed -n '1,5p' example.txt	print from 1th to 5th row of example.txt [man]
# sed -n '5p;5q' example.txt	print row number 5 of example.txt [man]
# sed -e 's/00*/0/g' example.txt	replace more zeros with a single zero [man]
# sort file1 file2	sort contents of two files [man]
# sort file1 file2   uniq	sort contents of two files omitting lines repeated [man]

# sort file1 file2   uniq -u	sort contents of two files by viewing only unique line [man]
# sort file1 file2   uniq -d	sort contents of two files by viewing only duplicate line [man]
# echo 'word'   tr '[:lower:]' '[:upper:]'	convert from lower case in upper case [man]

## $\textbf{Linux Command Line:} \ \underline{\textbf{Character set and Format file conversion}}$

Command	Description
# dos2unix filedos.txt fileunix.txt	convert a text file format from MSDOS to UNIX [man]
# recodeHTML < page.txt > page.html	convert a text file to html [man]
# recode -l   more	show all available formats conversion [man]
# unix2dos fileunix.txt filedos.txt	convert a text file format from UNIX to MSDOS [man]

# **Linux Command Line: Filesystem Analysis**

Command	Description
# badblocks -v /dev/hda1	check bad blocks on disk hda1 [man]
# dosfsck /dev/hda1	repair / check integrity of dos filesystems on disk hda1 [man]
# e2fsck /dev/hda1	repair / check integrity of ext2 filesystem on disk hda1 [man]
# e2fsck -j /dev/hda1	repair / check integrity of ext3 filesystem on disk hda1 [man]
# fsck /dev/hda1	repair / check integrity of linux filesystem on disk hda1 [man]
# fsck.ext2 /dev/hda1	repair / check integrity of ext2 filesystem on disk hda1 [man]
# fsck.ext3 /dev/hda1	repair / check integrity of ext3 filesystem on disk hda1 [man]
# fsck.vfat /dev/hda1	repair / check integrity of fat filesystem on disk hda1 [man]
# fsck.msdos /dev/hda1	repair / check integrity of dos filesystem on disk hda1 [man]

## **Linux Command Line:** Format a Filesystem

Command	Description
# fdformat -n /dev/fd0	format a floppy disk [man]
# mke2fs /dev/hda1	create a filesystem type linux ext2 on hda1 partition [man]
# mke2fs -j /dev/hda1	create a filesystem type linux ext3 (journal) on hda1 partition [man]
# mkfs /dev/hda1	create a filesystem type linux on hda1 partition [man]
# mkfs -t vfat 32 -F /dev/hda1	create a FAT32 filesystem [man]

# mkswap /dev/hda3	create a swap filesystem [man]	
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# Linux Command Line: Filesystem SWAP

Command	Description
# mkswap /dev/hda3	create a swap filesystem [man]
# swapon /dev/hda3	activating a new swap partition [man]
# swapon /dev/hda2 /dev/hdb3	activate two swap partitions [man]

#### **Linux Command Line: Backup**

Command	Description
	<u> </u>
# find /var/log -name '*.log'   tar cvfiles-from=-   bzip2 > log.tar.bz2	find all files with '.log' extention and make an bzip archive [man]
# find /home/user1 -name '*.txt'   xargs cp -avtarget- directory=/home/backup/parents	find and copy all files with '.txt' extention from a directory to another [man]
# dd bs=1M if=/dev/hda   gzip   ssh user@ip_addr 'dd of=hda.gz'	make a backup of a local hard disk on remote host via ssh [man]
# dd if=/dev/sda of=/tmp/file1	backup content of the harddrive to a file [man]
# dd if=/dev/hda of=/dev/fd0 bs=512 count=1	make a copy of MBR (Master Boot Record) to floppy [man]
# dd if=/dev/fd0 of=/dev/hda bs=512 count=1	restore MBR from backup copy saved to floppy [man]
# dump -0aj -f /tmp/home0.bak /home	make a full backup of directory '/home' [man]
# dump -1aj -f /tmp/home0.bak /home	make a incremental backup of directory '/home' [man]
# restore -if /tmp/home0.bak	restoring a backup interactively [man]
# rsync -rogpavdelete /home /tmp	synchronization between directories [man]
# rsync -rogpav -e sshdelete /home ip_address:/tmp	rsync via SSH tunnel [man]
# rsync -az -e sshdelete ip_addr:/home/public /home/local	synchronize a local directory with a remote directory via ssh and compression [man]
# rsync -az -e sshdelete /home/local ip_addr:/home/public	synchronize a remote directory with a local directory via ssh and compression [man]
# tar -Puf backup.tar /home/user	make a incremental backup of directory '/home/user' [man]
# ( cd /tmp/local/ && tar c . )   ssh -C user@ip_addr 'cd /home/share/ && tar x -p'	copy content of a directory on remote directory via ssh [man]
# ( tar c /home )   ssh -C user@ip_addr 'cd /home/backup-home && tar x -p'	copy a local directory on remote directory via ssh [man]
# tar cf   (cd /tmp/backup ; tar xf - )	local copy preserving permits and links from a directory to another [man]

## **Linux Command Line: CDROM**

Command	Description
# cd-paranoia -B	rip audio tracks from a CD to wav files [man]
# cd-paranoia	rip first three audio tracks from a CD to wav files [man]
# cdrecord -v gracetime=2 dev=/dev/cdrom -eject blank=fast -force	clean a rewritable cdrom [man]
# cdrecord -v dev=/dev/cdrom cd.iso	burn an ISO image [man]
# gzip -dc cd_iso.gz   cdrecord dev=/dev/cdrom -	burn a compressed ISO image [man]
# cdrecordscanbus	scan bus to identify the channel scsi [man]
# dd if=/dev/hdc   md5sum	perform an md5sum on a device, like a CD [man]
# mkisofs /dev/cdrom > cd.iso	create an iso image of cdrom on disk [man]
# mkisofs /dev/cdrom   gzip > cd_iso.gz	create a compressed iso image of cdrom on disk [man]
# mkisofs -J -allow-leading-dots -R -V	create an iso image of a directory [man]
# mount -o loop cd.iso /mnt/iso	mount an ISO image [man]

## Linux Command Line: Networking (LAN / WiFi)

Command	Description
# dhclient eth0	active interface 'eth0' in dhcp mode [man]
# ethtool eth0	show network statistics of eth0 [man]
# host www.example.com	lookup hostname to resolve name to ip address and viceversa [man]
# hostname	show hostname of system [man]
# ifconfig eth0	show configuration of an ethernet network card [man]
# ifconfig eth0 192.168.1.1 netmask 255.255.255.0	configure IP Address [man]
# ifconfig eth0 promisc	configure 'eth0' in promiscuous mode to gather packets (sniffing) [man]
# ifdown eth0	disable an interface 'eth0' [man]
# ifup eth0	activate an interface 'eth0' [man]
# ip link show	show link status of all network interfaces [man]
# iwconfig eth1	show wireless networks [man]
# iwlist scan	wifi scanning to display the wireless connections available [man]
# mii-tool eth0	show link status of 'eth0' [man]
# netstat -tup	show all active network connections and their PID [man]
# netstat -tupl	show all network services listening on the system and their PID [man]
# netstat -rn	show routing table alike "route -n" [man]
# nslookup www.example.com	lookup hostname to resolve name to ip address and

	viceversa [man]
# route -n	show routing table [man]
# route add -net 0/0 gw IP_Gateway	configure default gateway [man]
# route add -net 192.168.0.0 netmask 255.255.0.0 gw 192.168.1.1	configure static route to reach network '192.168.0.0/16' [man]
# route del 0/0 gw IP_gateway	remove static route [man]
# echo "1" > /proc/sys/net/ipv4/ip_forward	activate ip routing temporarily [man]
# tcpdump tcp port 80	show all HTTP traffic [man]
# whois www.example.com	lookup on Whois database [man]

## Linux Command Line: Microsoft Windows networks (samba)

Command	Description
# mount -t smbfs -o username=user,password=pass //WinClient/share /mnt/share	mount a windows network share [man]
# nbtscan ip_addr	netbios name resolution [man]
# nmblookup -A ip_addr	netbios name resolution [man]
# smbclient -L ip_addr/hostname	show remote shares of a windows host [man]
# smbget -Rr smb://ip_addr/share	like wget can download files from a host windows via smb [man]

## **Linux Command Line: IPTABLES (firewall)**

Command	Description
# iptables -t filter -L	show all chains of filtering table [man]
# iptables -t nat -L	show all chains of nat table [man]
# iptables -t filter -F	clear all rules from filtering table [man]
# iptables -t nat -F	clear all rules from table nat [man]
# iptables -t filter -X	delete any chains created by user [man]
# iptables -t filter -A INPUT -p tcpdport telnet -j ACCEPT	allow telnet connections to input [man]
# iptables -t filter -A OUTPUT -p tcpdport http -j DROP	block HTTP connections to output [man]
# iptables -t filter -A FORWARD -p tcpdport pop3 -j ACCEPT	allow POP3 connections to forward chain [man]
# iptables -t filter -A INPUT -j LOGlog-prefix	Logging on input chain [man]
# iptables -t nat -A POSTROUTING -o eth0 -j MASQUERADE	configure a PAT (Port Address Traslation) on eth0 masking outbound packets [man]
# iptables -t nat -A PREROUTING -d 192.168.0.1 -p tcp -m tcpdport 22 -j DNATto-destination 10.0.0.2:22	redirect packets addressed to a host to another host [man]

# **Linux Command Line: Monitoring and debugging**

Command	Description
# free -m	displays status of RAM in megabytes [man]
# kill -9 process_id	force closure of the process and finish it [man]
# kill -1 process_id	force a process to reload configuration [man]
# last reboot	show history reboot [man]
# lsmod	display kernel loaded [man]
# lsof -p process_id	display a list of files opened by processes [man]
# lsof /home/user1	displays a list of open files in a given path system [man]
# ps -eafw	displays linux tasks [man]
# ps -e -o pid,argsforest	displays linux tasks in a hierarchical mode [man]
# pstree	Shows a tree system processes [man]
# smartctl -A /dev/hda	monitoring reliability of a hard-disk through SMART [man]
# smartctl -i /dev/hda	check if SMART is active on a hard-disk [man]
# strace -c ls >/dev/null	display system calls made and received by a process [man]
# strace -f -e open ls >/dev/null	display library calls [man]
# tail /var/log/dmesg	show events inherent to the process of booting kernel [man]
# tail /var/log/messages	show system events [man]
# top	display linux tasks using most cpu [man]
# watch -n1 'cat /proc/interrupts'	display interrupts in real-time [man]

## **Linux Command Line: Others useful commands**

Command	Description
# alias hh='history'	set an alias for a command - hh = history [man]
# aproposkeyword	display a list of commands that pertain to keywords of a program , useful when you know what your program does, but you don't know the name of the command [man]
# chsh	change shell command [man]
# chshlist-shells	nice command to know if you have to remote into another box [man]
# gpg -c file1	encrypt a file with GNU Privacy Guard [man]
# gpg file1.gpg	decrypt a file with GNU Privacy Guard [man]
# ldd /usr/bin/ssh	show shared libraries required by ssh program [man]
# man ping	display the on-line manual pages for example on ping

	command - use '-k' option to find any related commands [man]
# mkbootdiskdevice /dev/fd0 `uname -r`	create a boot floppy [man]
# wget -r www.example.com	download an entire web site [man]
# wget -c www.example.com/file.iso	download a file with the ability to stop the download and resume later [man]
# echo 'wget -c www.example.com/files.iso'   at 09:00	start a download at any given time [man]
# whatiskeyword	displays description of what a program does [man]
# who -a	show who is logged on, and print: time of last system boot, dead processes, system login processes, active processes spawned by init, current runlevel, last system clock change [man]

## **Linux Command Line:** Pacman packages tool (Arch, Frugalware and alike)

Command	Description
# pacman -S name	Install package 'name' with dependencies [man]
# pacman -R name	Delete package 'name' and all files of it [man]