

Ubuntu Server CLI pro tips



Networking

Get the IP address of all interfaces
`networkctl status`

Display all IP addresses of the host
`hostname -I`

Enable/disable interface
`ip link set <interface> up`
`ip link set <interface> down`

Manage firewall rules
enable firewall: `sudo ufw enable`
list rules: `sudo ufw status`
allow port: `sudo ufw allow <port>`
deny port: `sudo ufw deny <port>`

Connect remotely through SSH
`ssh <user>@<host IP>`

Security

Show which users are logged in
`w`

Get password expiration date for
<user>
`chage -l <user>`

Set password expiration
date for <user>
`sudo chage <user>`

Lock a user account
`sudo passwd -l <user>`

Unlock a user account
`sudo passwd -u <user>`

List open ports and associated
processes
`sudo netstat -tulpn`

Packages

Search for packages
`apt search <string>`
`snap find <string>`

List available updates
`apt list --upgradable`

Apply all available updates
`sudo apt update && sudo apt upgrade`

Install from the Ubuntu archive:
`sudo apt install <package>`

Install from the snap store:
`sudo snap install <package>`

Which package provides this file?
`sudo apt install apt-file`
`sudo apt-file update`
`apt-file <filename or command>`

Automatically detect and ban
abusive IP addresses
`sudo apt install fail2ban`

Show banned IP addresses
`sudo fail2ban-client status`
`sudo fail2ban-client status <jail>`

Get the support status for installed
packages
`ubuntu-support-status`

Enable kernel live patching
`sudo snap install canonical-livepatch`
`sudo canonical-livepatch enable <token>`

Visit ubuntu.com/livepatch to get a
free token for up to 3 machines.

Files

List files
`ls`

List files with permissions and dates
`ls -al`

Common file operations
create empty: `touch <filename>`
create with content: `echo "<content>" > <filename>`
append content: `echo "<content>" >> <filename>`
display a text file: `cat <file>`
copy: `cp <file> <target filename>`
move/rename: `mv <file> <target directory/filename>`
delete: `rm <file>`

Create a directory
`mkdir <directory>`

Create directories recursively
`mkdir -p <directory1>/<directory2>`

Delete a directory recursively
`rm -r <directory>`

Quick file search
`locate <q>`

Search string in file
`grep <string> <filename>`

Search string recursively in
directory
`grep -Iris <string> <directory>`

Ubuntu release cadence

Ubuntu 20.04 LTS

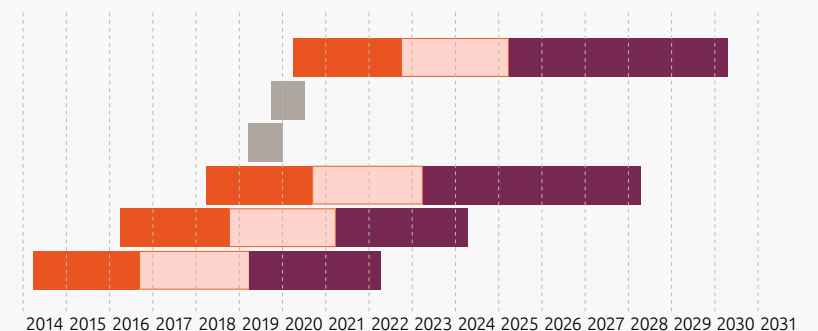
Ubuntu 19.10

Ubuntu 19.04

Ubuntu 18.04 LTS

Ubuntu 16.04 LTS

Ubuntu 14.04 LTS



Hardware and maintenance updates

Interim release

Maintenance updates

Extended security maintenance for customers



Files

Find files modified in the last n minutes
`find <directory> -mmin -<n> -type f`
eg. `find . -mmin -5 -type f`

Show only the nth column
`col<n> "<separator>" <filename>`
eg. `col2 "," foo.csv`

Display file paginated
`less <filename>`

Display first n lines
`head -n <n> <filename>`

Display last n lines
`tail -n <n> <filename>`

Follow file content as it increases
`tail -f <filename>`

System

Display kernel version
`uname -r`

Get disk usage
`df -h`

Get memory usage
`cat /proc/meminfo`

Get system time
`timedatectl status`

Set system timezone
`timedatectl list-timezones`
`sudo timedatectl set-timezone <zone>`

Get all running services
`systemctl --state running`

Start or stop a service
`service <service> start/stop`

Monitor new logs for a service
`journalctl -u <service> --since now -f`

Pack a directory into an archive
zip: `zip -r <target> <source dir>`
tar.gz: `tar cvzf <target>.tar.gz <source dir>`

Unpack an archive
zip: `unzip <zip file>`
tar.gz: `tar xf <tar.gz file>`

Copy file to remote server
`scp <filename> <user@server>:<destination>`
eg. `scp config.yaml admin@192.0.0.0:/config`

Copy directory recursively from remote server
`scp -r <user@server>:<source> <destination>`
eg. `scp -r admin@192.0.0.0:/config /tmp`

Get the list of recent logins
`last`

Display running processes
`htop`

Kill process by id
`kill <process id>`

Kill process by name
`pkill <process name>`

Run command in the background
`<command> &`

Display background commands
`jobs`

Bring command <n> to the foreground
`fg <n>`

Kubernetes and containers

Install MicroK8s and list available add-ons
`sudo snap install microk8s --classic`
`microk8s.status --wait-ready`

Enable a MicroK8s add-on
`microk8s.enable <service>`

View MicroK8s nodes and running services
`microk8s.kubectl get nodes`
`microk8s.kubectl get services`

[More MicroK8s help at microk8s.io/docs](https://microk8s.io/docs)

Launch a LXD container
`lxd init`
`lxc launch ubuntu:18.04 <container name>`

Or another distro
`lxc launch images:centos/8/amd64 <container name>`

Get a shell inside a LXD container
`lxc exec <name> -- /bin/bash`

Push a file to a LXD container
`lxc file push <filename> <container name>/<path>`

Pull a file from a LXD container
`lxc file pull <destination> <container name>/<file path>`

[More LXD help at linuxcontainers.org/lxd](https://linuxcontainers.org/lxd)

Virtualisation

Install Multipass and launch an Ubuntu VM
`sudo snap install multipass --classic`
`multipass launch <image> --name <VM name>`

Omitting <image> will launch a VM with the latest Ubuntu LTS

Find available images
`multipass find`

List existing VMs
`multipass list`

Get a shell inside a VM
`multipass shell <VM name>`

[More Multipass help at discourse.ubuntu.com](https://discourse.ubuntu.com)

OpenStack

Install OpenStack and launch an instance
`sudo snap install microstack --classic`
`sudo microstack.init`
`microstack.launch`

The Horizon dashboard is available at 10.20.20.1
Default credentials: admin / keystone

[More MicroStack help at microstack.run/docs](https://microstack.run/docs)