

# Prod support commands

For production support in Linux environments, it's essential to be familiar with a variety of commands that help monitor, diagnose, and manage system resources, processes, network configurations, and more. Here's a list of the most commonly used Linux commands for production support:

## 1. File and Directory Management

- `ls` – List directory contents.
- `cd` – Change directories.
- `pwd` – Print working directory.
- `mkdir` – Create directories.
- `rm` – Remove files or directories (be cautious with `rm -rf`).
- `cp` – Copy files or directories.
- `mv` – Move/rename files or directories.
- `find` – Search for files in a directory hierarchy.
- `chmod` – Change file or directory permissions.
- `chown` – Change file ownership.
- `df` – Display file system disk space usage.
- `du` – Estimate file space usage.

## 2. Process Management

- `ps` – Report a snapshot of current processes.
- `top` / `htop` – Display real-time process information (useful for monitoring resource usage).
- `kill` – Terminate processes by PID.
- `pkill` – Kill processes by name.
- `nice` / `renice` – Change process priority.
- `nohup` – Run processes immune to hangups (useful for running long processes in the background).
- `bg` / `fg` – Move processes to the background/foreground.

## 3. Network and Connectivity

- `ping` – Test network connectivity.

- `netstat` – Display network connections, routing tables, interface statistics, etc.
- `ss` – Another tool to investigate sockets, faster than `netstat`.
- `ifconfig` – Configure or display network interfaces.
- `ip` – Show/manipulate routing, devices, policy routing (newer version of `ifconfig`).
- `traceroute` – Trace the path to a network host.
- `nslookup` / `dig` – Query DNS information.
- `telnet` / `nc` (netcat) – Test network services on a specific port.
- `scp` – Secure copy files over SSH.
- `rsync` – Efficient file copying/syncing over network or locally.

#### 4. System Monitoring and Diagnostics

- `uptime` – Show how long the system has been running.
- `vmstat` – Report virtual memory statistics.
- `iostat` – Report CPU and I/O statistics.
- `free` – Display amount of free and used memory in the system.
- `dmesg` – Print kernel ring buffer (helpful for diagnosing boot issues or hardware errors).
- `sar` – System activity reporter (provides historical CPU, memory, I/O, and network usage).
- `lsof` – List open files and the processes using them.
- `iostat` – Display I/O usage by processes.
- `df` – Display file system disk space usage.
- `du` – Estimate file space usage.
- `who` – Show who is logged on.
- `w` – Display who is logged in and what they are doing.
- `last` – Show the last logins to the system.

#### 5. Package Management

- `yum` / `apt-get` – Install or update packages on RedHat-based or Debian-based systems.
- `rpm` / `dpkg` – Install or manage individual packages.

#### 6. Log Management

- `tail` – Output the last part of files (useful for log monitoring).
- `head` – Output the first part of files.

- `grep` – Search file contents (can be combined with `tail` or `cat` for log analysis).
- `less` – View file contents one page at a time.
- `cat` – Concatenate and display file contents.
- `journalctl` – Query systemd logs.
- `logger` – Add entries to the system log.

## 7. User and Permission Management

- `whoami` – Show the current user.
- `id` – Display user identity information.
- `sudo` – Execute a command as another user, typically as root.
- `usermod` – Modify a user account.
- `passwd` – Change a user's password.
- `groupadd` / `useradd` – Add groups or users.
- `groups` – Show group memberships of a user.

## 8. Archiving and Compression

- `tar` – Archive files.
- `gzip` / `gunzip` – Compress or decompress files using gzip.
- `zip` / `unzip` – Compress or decompress files using zip.
- `xz` / `unxz` – Compress or decompress files using xz compression.

## 9. Disk Management

- `fdisk` / `parted` – Partition management tools.
- `mount` / `umount` – Mount or unmount filesystems.
- `lsblk` – List block devices.
- `blkid` – Show block device attributes.
- `fsck` – File system consistency check.

## 10. SSH and Remote Management

- `ssh` – Securely connect to a remote system.
- `ssh-keygen` – Generate an SSH key pair.
- `ssh-copy-id` – Install your public key on a remote machine for passwordless SSH.

- `tmux` / `screen` – Terminal multiplexers for managing multiple sessions.

## 11. Miscellaneous Utilities

- `cron` / `crontab` – Schedule regular jobs.
- `watch` – Execute a program periodically and show the output.
- `time` – Measure the time taken by a process to execute.
- `alias` – Create a shortcut for a command.
- `uname -a` – Display system information.
- `hostname` – Show or set the system's hostname.
- `env` – Print environment variables.

These commands will help you manage the server effectively in a production environment, troubleshooting issues, monitoring resource usage, handling file operations, and managing network configurations. Would you like a deeper explanation of any of these commands?