



# Linux Cheat Sheet

## Network Commands



### Network Configuration

<a href="#"><u>hostname</u></a>	Shows the hostname of the current system
<a href="#"><u>ip</u></a>	Displays and configures network interfaces, routing, and tunnels
<a href="#"><u>iwconfig</u></a>	Displays and configures wireless network interfaces
<a href="#"><u>nmcli</u></a>	Reports network status, manage and configure network connections, and control the NetworkManager
<a href="#"><u>ifconfig</u></a>	Displays and configures the current system's network interfaces
<a href="#"><u>ifquery</u></a>	Checks the current configuration of network interfaces and their parameters
<a href="#"><u>netplan</u></a>	Configures network interfaces using YAML files
<a href="#"><u>netplan</u></a>	Defines network interfaces, IP addresses, gateways, DNS servers, and other network-related parameters in a YAML configuration
<a href="#"><u>ifup</u></a>	Activates a network interface that is currently down
<a href="#"><u>ifdown</u></a>	Deactivates a network interface that is currently up
<a href="#"><u>dhclient</u></a>	Automatically obtains an IP address and other network configuration information from a DHCP server

### Utility Commands

<a href="#"><u>curl</u></a>	Transfers data from or to a server
<a href="#"><u>aria2</u></a>	Supports various protocols for downloading files from the internet
<a href="#"><u>ethtool</u></a>	Modifies network interface settings, such as speed and queries information of those
<a href="#"><u>wget</u></a>	Command-line utility for downloading files from the web

### Remote Access Commands

<a href="#"><u>ssh</u></a>	Securely connects to a remote system using the SSH protocol
<a href="#"><u>scp</u></a>	Copies files securely between client and server using the SSH protocol
<a href="#"><u>sftp</u></a>	Securely transfers files between hosts using the SFTP protocol

### Network Connectivity

<a href="#"><u>arp</u></a>	Map IP addresses to MAC addresses on a LAN and manage ARP cache
<a href="#"><u>arp -a</u></a>	Prints arp table
<a href="#"><u>arp -a -d</u></a>	Deletes all arp table entries
<a href="#"><u>ping</u></a>	Tests network connectivity among host/server and host by sending packets to a host and measuring the response
<a href="#"><u>arp -s</u></a>	Adds entry in arp table
<a href="#"><u>netstat</u></a>	Displays active network connections, routing tables, and other network statistics
<a href="#"><u>netstat -r</u></a>	Prints routing table
<a href="#"><u>telnet</u></a>	Establishes a connection to a remote server/system through a TCP/ IP network using the Telnet network protocol
<a href="#"><u>route flush</u></a>	Removes all routes
<a href="#"><u>traceroute</u></a>	Displays the route packets take to reach a remote server through multiple hops
<a href="#"><u>route</u></a>	Configures the kernel's routing table
<a href="#"><u>w</u></a>	Displays information about currently logged-in users
<a href="#"><u>mail</u></a>	Sends and receives email using the command line
<a href="#"><u>ngrep</u></a>	Displays and filters network packet data on a given regex pattern
<a href="#"><u>iw</u></a>	Displays and configures wireless network interfaces

### DNS & Name Resolution

<a href="#"><u>nslookup</u></a>	Performs DNS lookups to resolve hostnames, IP addresses mapping or any specific DNS record
<a href="#"><u>host</u></a>	Performs DNS lookups to resolve hostnames or IP addresses
<a href="#"><u>dig</u></a>	Performs DNS lookups to query information about DNS name servers



### Network Testing and Monitoring

<code>hping</code>	Assembles and analyses TCP/IP packets and sends packets to a remote host and analyzes the responses
<code>mtr</code>	Works as a combination of traceroute and ping commands, sends packets with the ping time for each hop continuously
<code>nc / netcat</code> <code>/ncat</code>	Provides the ability to read and write data across network connections
<code>smokeping</code>	Measures network latency and packet loss between two hosts, runs checks in certain intervals
<code>socat</code>	Transfers data between two bidirectional byte streams
<code>speedometer</code>	Displays bandwidth usage in real-time
<code>speedtest-cli</code>	Measures network performance by performing a speed test
<code>ss</code>	Displays active network connections, socket statistics, and other network-related information
<code>tracpath</code>	Traces the route packets take discovering MTU along this path

### Network Information

<code>finger</code>	Shows user login information on a remote system
<code>jwhois</code>	Fetches information about domain ownership from various WHOIS servers

### Network Analysis & Monitoring

<code>tcpdump</code>	Captures and analyzes network traffic in real-time
<code>nmap</code>	Scans a network to discover hosts and services or for security
<code>bmon</code>	Displays bandwidth usage in real-time for individual network interfaces
<code>bwm-ng</code>	Monitors current bandwidth for multiple network interfaces
<code>iftop</code>	Displays real-time network bandwidth usage by individual connections
<code>iperf</code>	Tests network performance within two systems
<code>iptraf-ng</code>	Monitors and displays network traffic in real-time
<code>nethogs</code>	Monitors network traffic by process and displays bandwidth usage
<code>vnstat</code>	Keeps track of hourly, daily and monthly network traffic for selected interfaces and displays statistics on console

### Security Commands

<code>iptables</code>	Firewall utility that manages packet filtering and NAT
<code>snort</code>	Intrusion detection system that analyzes network traffic for suspicious activity
<code>wireshark</code>	Captures and analyzes network traffic in a formatted text
<code>ufw</code>	Manages system firewall and adds/deletes/modifies/resets packet filtering rule