# 10 Essential Networking Linux Commands

## 1. ifconfig / ip

Purpose: Display or configure network interfaces.

* Examples:
* ifconfig # Show network interfaces (deprecated)
* ip addr show # Modern replacement for ifconfig

## 2. ping

Purpose: Test connectivity to a remote host.

* Examples:
* ping google.com

## 3. netstat / ss

Purpose: View active network connections, ports, and routing tables.

* Examples:
* netstat -tuln # Show listening ports
* ss -tuln # Modern replacement for netstat

## 4. traceroute / tracepath

Purpose: Trace the route packets take to reach a destination.

* Examples:
* traceroute google.com
* tracepath google.com

## 5. nslookup / dig

Purpose: Query DNS records and resolve domain names.

* Examples:
* nslookup google.com
* dig google.com

## 6. curl / wget

Purpose: Test network connectivity and fetch data from URLs.

* Examples:
* curl http://example.com
* wget http://example.com

## 7. arp

Purpose: View and manage the ARP (Address Resolution Protocol) table.

* Examples:
* arp -a

## 8. hostname

Purpose: Display or change the system's hostname.

* Examples:
* hostname # Show hostname
* hostnamectl # Modify hostname

## 9. tcpdump

Purpose: Capture and analyze network packets.

* Examples:
* tcpdump -i eth0

## 10. ethtool

Purpose: Display or configure Ethernet interface parameters.

* Examples:
* ethtool eth0