In Red Hat Linux and other Linux distributions, numerous networking commands are available for various tasks, from basic network interface management to complex routing and network troubleshooting. Below is a list of commonly used networking commands along with examples:

sudo apt install net-tools

1. `ifconfig` (Deprecated but still in use)

- Usage: View or configure network interfaces.

- Example: Display all active interfaces:

ifconfig

- Example: Configure an interface IP address:

ifconfig eth0 192.168.1.10 netmask 255.255.255.0 up

2. `ip`

- Usage: Show / manipulate routing, devices, policy routing, and tunnels.

- Example: Display all interfaces:

ip addr show

- Example: Set an IP address:

ip addr add 192.168.1.10/24 dev eth0

3. `ping`

- Usage: Check connectivity between the host and the target.

- Example: Ping google.com:

ping google.com

4. `netstat` (Deprecated but still in use)

- Usage: Display network connections, routing tables, interface statistics, masquerade connections, and multicast memberships.

- Example: List all ports and connections:

netstat -a

- Example: Display routing table:

netstat -rn

5. `ss`

- Usage: Utility to investigate sockets.

- Example: List all connections:

ss -tuln

6. `traceroute`

sudo yum install traceroute -y

- Usage: Print the route packets take to a network host.

- Example: Trace the path to google.com:

traceroute google.com

7. `dig`

- Usage: DNS lookup utility.

- Example: Query google.com A records:

dig google.com A

8. `nslookup`

sudo yum install bind-utils -y

- Usage: Query Internet domain name servers.

- Example: Lookup the IP address of google.com:

nslookup google.com

9. `hostname`

- Usage: Show or set the system's host name.

- Example: Display the current hostname:

hostname

- Example: Set the hostname:

hostname newhostname

10. `route`

- Usage: Show / manipulate the IP routing table.

- Example: Add a default gateway:

route add default gw 192.168.1.1 eth0

- Example: Display the routing table:

route -n

11. `arp`

- Usage: Manipulate the system's ARP cache.

- Example: Display the ARP table:

arp -a

12. `nmap`

- Usage: Network exploration tool and security scanner.

- Example: Scan a host for open ports:

nmap -v -A 192.168.1.10

13. `tcpdump`

- Usage: Dump traffic on a network.

- Example: Capture packets on eth0:

tcpdump -i eth0

14. `iwconfig` (For wireless networks)

- Usage: Configure wireless network interfaces.

- Example: Display wireless information for wlan0:

iwconfig wlan0