

EX No: 1

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BASIC NETWORK COMMANDS

Linux Network Commands – Synopsis & Description

Command	Synopsis	Description
ifconfig / ip a	ip a	Shows IP address, MAC address, and interface status. ip is the modern replacement for ifconfig.
ping	ping google.com	Sends ICMP packets to test connectivity and measure response time.
tracert	tracert google.com	Displays the path packets take to reach a host, showing each hop.
netstat -tuln	netstat -tuln	Lists active TCP/UDP ports and listening services.
ss -tuln	ss -tuln	Faster and more

		detailed alternative to netstat.
nslookup	nslookup example.com	Queries DNS to resolve domain names to IP addresses.
dig	dig example.com	More advanced DNS query tool showing detailed records.
hostname	hostname	Displays or sets the system's hostname.
curl	curl https://example.com	Fetches data from a URL, useful for testing APIs or websites.
wget	wget https://example.com/file.zip	Downloads files from the internet.
nmap	nmap 192.168.1.1	Scans ports and services on a host (requires installation).
ip route	ip route	Shows the system's routing table.
iptables -L	sudo iptables -L	Lists firewall

rules (requires
root privileges).

Windows Network Commands – Synopsis & Description

Command	Synopsis	Description
ipconfig	ipconfig	Displays IP address, subnet mask, and gateway info.
ping	ping google.com	Tests connectivity and shows round-trip time.
tracert	tracert google.com	Traces the route packets take to a destination.
netstat -an	netstat -an	Lists active connections and listening ports.
nslookup	nslookup example.com	Resolves domain names to IP addresses using DNS.
hostname	hostname	Displays the computer's name.
curl	curl https://example.com	Retrieves content from a URL (available in Windows 10+).
getmac	getmac	Shows MAC address of network interfaces.
route print	route print	Displays the routing table.

arp -a

netsh

tasklist | findstr

arp -a

netsh interface show
interface

tasklist | findstr chrome

Shows the ARP cache
(IP to MAC mappings).

Configures and displays
network settings.

Checks if a specific
process is running.