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Ping

ping test connectivity between and system and another host and measure round trip time and packet loss. It send request to host and get response. By that response, it can check the host is reachable or not and calculate latency.

Trace Trace route

Display the route packets take from system to a destination host, showing each hop along the way. It is used identify delay and failure occured In network. It also helps in understanding network paths .

if config

To display network interfaces and their configuration. It shows ip addresses, mac address ; subnet mask. It can verify interface ip and also can check active interfaces. It also shows broad cast address and status.

arp (arp -a)

Address Resolution protocol. used for maps ip address to mac address and vice versa in the local network. it gives the lists IPs of devices in the network and their mac addresses which can be used for identify devices in the LAN.

Nslookup

Queries DNS servers to resolve domain names to IP addresses or vice versa. It is also used to check other DNS records like MX or NS. and verify DNS resolution and troubleshoot domain-related issues.

netstat

It shows network connections, listening ports, routing table and statistics to identify active connections. Also it shows programs which are using network pot ports. This are statistics are for TCP/UDP protocols used for monitoring network activity.