

9/7/25

Aim:

To study the various network command used in windows operating system.

Commands:1. arp-a

arp (address resolution Protocol) will shows the IP address of device along with the mac address.

O/p: Interface - 172.16.50.231 --- 0x8

Internet Address	Physical Address	Type
172.16.50.1	7c-5a-1c-cf-be-3e	dynamic
172.16.50.7	3c-52-91-10-55-47	dynamic

2. Hostname

hostname is used to display the names of the devices

O/p: DESKTOP-27MC9V2

3. ipconfig:

ipconfig display the configuration of TCP/IP connection.

O/p: Windows IP configuration
Ethernet Adapter Ethernet

connection specific DNS suffix:

IPV4 Address 172.16.50.231
Subnet Mask 255.255.255.0

4. nslookup

nslookup (name server lookup) used for DNS lookup.

O/p: default server: unknown

Address : 172.16.50.1
> google.com
Server : unknown
Address : 172.16.50.1
Non-authorized answer
Name : google.com
Address : 2404:6800:4001:815:2009
142.250.183.174

6. Pathping:

Pathping is basically used for network troubleshoot that complies the function of ping/tracert. It gives the report of each router.

O/P : Usage: pathping [-ghost - list] [-h maximum hops]
[-4] [-6] target-name,

7. ping:

ping (packet Internet Groouper) used to test the connectivity between two node.

O/P:

> ping google.com

ping attribute for 142.250.183.174

packets : sent = 4, received = 4, lost = 0 (0% loss)

Approximate round trip times in milli-seconds

Minimum = 3ms, Max = 4ms, average = 2ms.

8. Route Print - 4

Route is used to display the IP-routing table its like a roadmap to define the IP range, destination, netmask, gateway.

O/P : IPV4 Route table

Active route

Network	Destination	Gateway Addressing	Metric
127.0.0.0	255.0.0.0	on-link	127.0.0.1

Persistent Route.

Network Address	Netmask	Gateway Address	Metric
0.0.0.0	0.0.0.0	172.16.50.1	Default.

Result :

Thus the basic command in windows/linux operating system was studied.