

15/7/24

Expt no - 01 STUDY of Various Network components

CSE IN LINUX AND WINDOWS

Basic Networking Commands:

1) ip a - Address Resolution Protocol Show IP addresses of Your computer along with IP addresses of your router.

Output: Interface: 172.16.8.87 - - - 0x10

Internal Address	physical Address	Type
172.16.8.1	7c-5a-1c-cf-b0-45	dynamic
172.16.8.88	50-9a-4c-35-12-2e	dynamic
172.16.11.255	ff-ff-ff-ff-ff-ff	static

2) hostname - Name of your computer

Output:

DESKTOP-LDMVTDN.

3) ipconfig call - detailed configuration information about your TCP/IP connection

OUTPUT:-

Window IP configuration

Host name DESKTOP-LDMVTDN

Primary DNS suffix

Node type Hybrid

IP Routing Enable No

WINS proxy Enable No

Ethernet adapter Ethernet

Wireless LAN Adapter WiFi.

Abstract: displays protocol status and

net:

NBTSTAT [C- or Remote name] [- A IP Address] [-

[- n] [- v] [- R] [- P] [- S] [- S] time

- a (Adapter Status) lists the Remote Name
Name given the name.

Nestat -r: used to turn Print Network Statistics

Outputs:

Interface list

16-50 9a 4c 34 db 63 . . . Realtek PCIe Gbe

Family Controller

IPv4 Route Table

Active Router

Persistent Routes

IPv6 Route table

b) NS Lookup domain name - to perform DNS lookup

C:\> nslookup

C:\> nslookup www.google.com

Server: Unknown

Address: 172.16.8.1

Non-authorized answer

7) Ping :- (packet Internet Gropper) - test connectivity between two nodes.

Output:

C:\user\ale > ping 172.16.8.87.

Pinging 172.16.8.87 with 32 bytes of Data:

Reply from 172.16.8.87: bytes = 32 time < 1 ms TTL = 128

ping statistics for 172.16.8.87

packet: sent = 4, Received = 4, lost = 0 (0% loss)

packet: sent = Approximated Round trip times millisecond.

minimum = 0ms, maximum = 0ms, Average = 0ms.

8) pathping: Unique to windows - combination of ping and tracer

Output:-

C:\user\REC > pathping 172.16.8.87

Tracing Route to destop - LDM VTDN [172.16.8.87].

Over a maximum of 30 hops:

0 Destops - LDM VTDN [172.16.8.87].

1 Destops - LDM VTDN [172.16.8.87]

computing statistics for 25 seconds.....

9) Route: - used to modify / Display Routing info.

OUTPUT: C:\user\REC > Route PRINT

IPv4 Route table:

Active Routes

Network Dest

Precedent Routes

IPv6 Route table:

Active Routes

Precedent Routes

Network gateway interface Metric