



# Aim: STUDY OF VARIOUS NETWORK COMMANDS USED IN LINUX AND WINDOWS.

## (a) Basic networking commands

### (i) arp -a:

Interface: 172.16.75.90 --- 0x11

Internet Address	physical Address	Type
172.16.72.1	7c-5a-1c-cf-be-4f	dynamic
172.16.74.170	30-52-cb-08-1e-f3	dynamic
172.16.75.91	4c-82-a9-78-90-cf	dynamic
172.16.75.92	4c-82-a9-78-96-9d	dynamic
172.16.79.253	ff-ff-ff-ff-ff-ff	Static
224.0.0.2	01-00-5e-00-00-02	Static
224.0.0.22	01-00-5e-00-00-16	Static
224.0.0.113	01-00-5e-00-00-71	Static

### (ii) hostname:

K305-90

### (iii) ipconfig /all:

#### windows IP Configuration

Host name : K305-90  
 primary DNS :  
 Node type : Hybrid  
 IP Routing enabled : No  
 wins proxy enabled : No

Ethernet adapter ethernet:

Media State : Media disconnected  
 Connection-Specific DNS Suffix :  
 Description : Intel(R) E C (17) I219-LM  
 Physical address : 28-8A-10-86-76-DD  
 DHCP enabled : Yes  
 Autoconfiguration enabled : Yes

(iv) nbtstat -a :

Displays protocol statistics and current  
 TCP/IP connections using NBT  
 (NetBIOS over TCP/IP)

NBTSTAT [-a RemoteName] [-a IP Address]  
 [-c] [-n] [-x] [-r] [-R] [-s] [-S]  
 [interval]

Remote Name : Remote host machine name  
 IP Address : Dotted decimal representation  
 of the IP Address  
 Interval : RedDisplays Selected Statistics,  
 pausing interval seconds  
 between each display.

(v) netstat:

Active Connections

Proto	Local Address	Foreign Address	State
TCP	172.16.9.46:39255	20.128.119.143	ESTABLISHED
TCP	172.16.9.46:39324	20.128.119.143	ESTABLISHED





TCP 172.16.9.46:39863 → 142.250.193.228:https CLOSE\_WAIT  
 TCP 172.16.9.46:40090 → 172.16.0.1:domain TIME\_WAIT

evl) nslookup:

Default Server: unknown  
 Address: 172.16.8.1

evl) pathping:

usage: pathping [-g host-list] [-h maximum-hops]  
 [-i address] [-n] [-P period]  
 [-q num-queries] [-w timeout] [-t]  
 [-G] target-name

options:

-g host-list loose source route along  
 host-list

-h max-hops Maximum number of hops  
 to search for target.

evl) ping 127.16.0.27

usage: ping 127.16.0.27 with 32 bytes of data

Reply from 142.250.193.228: bytes=32 time=538 ms

ping statistics for 127.16.0.27:

packets: Sent=4, Received=4, lost=0 (0% loss)

Approximate round trip times in milli-seconds:

Minimum=22 ms, Maximum=538 ms, Average=158 ms

Cisco Router printout 157\*

Interface list

11 50 90 40 30 02 10

Rasitok PTE GbE  
 Family Controllers

IPv4 Route table

Active Routes:

Name

Persistent Routes:

Name

IPv6 Route Table