

Practical - 1

Basic Networking commands

1) arp - a

Interface : 192.168.32.1 --- 0x4

Internet Address	Physical address	type
192.168.32.255	ff-ff-ff-ff-ff-ff	Static
224.0.0.2	01-00-5e-00-00-02	Static

Interface : 172.16.8.92 --- 0x16

Internet Address	Physical address	type
172.16.8.1	7c-5a-1c-c8-be-45	dynamic

Internet Address	Physical address	type
172.16.8.88	50-9a-4c-35-12-2e	dynamic

Interface : 192.168.80.191 --- 0x13

Internet Address	Physical address	type
192.168.80.255	ff-ff-ff-ff-ff-ff	Static

Internet Address	Physical address	type
224.0.0.2	01-00-5e-00-00-02	Static

2) hostname

DESKTOP - FL3BH QV (display the name of computer)

3) ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 120

Configuration - Specific DNS Suffix :

Link-Local IPv6 Address
fe80::a75:76bc:bd76:3d04%16
IPv4 Address 172.16.8.92
Subnet mask 255.255.252.0
Default Gateway 172.16.8.1

wireless LAN adapter Wi-Fi

media state media disconnected
connection-specific DNS Suffix :

wireless LAN adapter Local Area
Connection* 2 172.16.8.1

connection-specific DNS Suffix :
Link-Local IPv6 Address fe80::
2bcb:acbd:f99f:d55f%2
IPv4 Address 192.168.137.1
Subnet mask 255.255.
255.0

Default Gateway :

4) ~~nbtstat -a~~

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

NBTSTAT [-a RemoteName] [-A IP Address]
[-n] [-x] [-R] [-RR] [-S]

`[-s] [-interval]`

Remote name Remote host machine name

ip address Dotted decimal

interval The presentation of the
IP address.

Interval The displays selected statistics
pausing in interval seconds before
each display, press Ctrl+C to
stop redisplaying statistics

5) nslookup

default server : unknown

Address : 172.16.8.1

6) pathping

Usage : pathping [-g host -list] [-h maximum
hops] [-i address] [-n]
[-p period] [-q num-queries] [-w
[-t]] [-b] target - name timeout

Options :

- g host -list : Loose source route along
host -list.
- h maximum -hops : maximum number of hops
to search for target.
- i address : use the specified source
address.
- n : Do not resolve addresses to
host name.

- p period : wait period milliseconds between pings.
- q from query : number of queries per box
- w timeout : wait timeout milliseconds for each reply.
- h : Force using IPv4.
- b : Force using IPv6.

7) Netstat.

Active connection.

proto	Local Address	Foreign Address	state
TCP	172.16.8.92:59405	20.198.119.142:80	ESTABLISHED
TCP	172.16.8.92:62165	13.107.246.251:80	CLOSED
TCP	172.16.8.92:62362	a-cog3-https	ESTABLISHED

8) Ping.

usage : ping [-t] [-a] [-n count] [-l size] [-f] [-i interval] [-v tos] [-s count] [-s host-list] [-w timeout] [-R] [-S srcaddr] [-c comment] [-e] [-h] [-b] target-name.

Options

- a. The solve addresses to hostnames.

- ~~count~~ number of echo requests to send
- l size send buffer size
- f set don't fragment flag in packet (IPv4 - only).
- i TTL Time To Live.
- s srcaddr source address to use.
- c compartment Routing compartment identifier
- n force using IPv4.
- b ~~Force using IPv6.~~