

Practical No. 2

Aim:- Using Packet Tracer, create a basic network of two computers using appropriate network wise. Use static IP address allocation and show connectivity.

Procedure:-

Static Routing is also known as non-adaptive routing which doesn't change the routing ~~table~~ table unless the network administrator changes or modifies them manually. Static Routing does not use complex routing algorithms and it provides high or more security than dynamic routing.

Steps:-

- 1) Take router and two pc's,
 - click on the router,
 - go to physical,
 - select HWIC-4ESW / 4 keys,
 - switch on the power,
 - drag and drop,
 - switch on the power
- 2) Connect the pc's to router:- here use copper cross-over wire
 - pc0 :- click fastEthernet 0
 - router :- click GigabitEthernet 0/0
 - pc1 :- click fastEthernet 0
 - router:- click GigabitEthernet 0/1then,
 - click on the router,
 - then select config,

-- select interface :-

GigabitEthernet 0/0 -- click ON

GigabitEthernet 0/1 -- click ON

3) Give IP address to pc0 :-

-- click on pc0 -- then go to desktop -- select ipconfiguration.

by default static is selected.

-- ip address :- 192.168.1.1

-- subnet mask :- 255.255.255.0

-- default gateway :- 192.168.2.2

then,

-- go back to the desktop, -- go to command prompt,

-- type a command :- ipconfig.

4) Give ip address to pc1 :-

-- click on pc1 -- then go to desktop -- select ~~an~~ ipconfiguration.

by default it's already selected static.

-- ip address :- 192.168.2.1

-- subnet mask :- 255.255.255.0

-- default gateway :- 192.168.1.2

then,

-- go back to the desktop, -- go to command prompt, -- type a

command :- ipconfig.

5) -- Give ip address to router :-

-- select router, -- go to the interface, -- select GigabitEthernet

0/0

GigabitEthernet 0/0 (G0/0) :- ip address -- 192.168.1.2

subnet mask -- 255.255.255.0

then,

-- select GigabitEthernet 0/1

G 0/1 :- ip address -- 192.168.2.2

subnet mask -- 255.255.255.0

6) Allocate static ip routing :-

-- select router, -- go to routing, -- select static

Add the range :-

-- Network :- 192.168.1.0

-- mask :- 255.255.255.0

-- next hop :- 192.168.2.0

Add this also :-

-- Network :- 192.168.2.0

-- mask :- 255.255.255.0

-- Next hop :- 192.168.1.0

7) Ping pc0 to pc1 and vice versa :- use ping command .

-- select pc0, -- go to desktop, -- go to command prompt,

-- type ping command :-

→ ping 192.168.2.1

-- select pc1, -- go to desktop, -- go to command prompt,

-- type ping command :-

→ ping 192.168.1.1

8) Transfer message from pc0 to pc1 and vice versa :-

-- select the message icon on upper side

-- then drag and drop to pc0 and pc1

-- go to simulator

-- and then click on the play button

then

-- click on realtime - for stop

9)

- select router , -- go to CLI , -- type commands :-
- show ip route
- show ip interface brief .

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