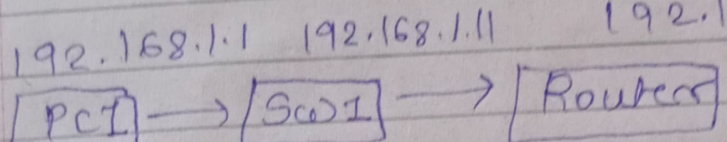
Presentation & Report

25 - Lab manual

PAGE NO:
DATE: / /

Telnet :-



S1) configure Switch

```
Sw1 > enable
    # conf t
    # interface vlan 1
    # ip address 192.168.1.11 255.255.255.0
    # no shutdown
    # exit.
```

S2) User name & password → To Access Telnet

```
# username cisco password CCNA
# line vty 0 15
```

S3)

```
# login local
# transport input telnet
# do show run
```

Command line of PC1

```
C:> telnet 192.168.1.11
Sw1 > enable
Sw1 #
```

255.0.0.0 if bits are zero they will
n/w add. ↳ host address

PC → Router, crossover cable
Router → Switch, straight cable
Switch → PC, Straight cable

* no shutdown - enable that particular database

* IP address (Internet Protocol address) we can give it logically. (logical

* Subnet mask
Network mai jo computer hai woo same network mai ye pata krne keliye use krte hai.

(It seperates out the IP addresses into two parts - network addres & host address)

* Defaut gateway connects local devices to other networks.

* Class A	1-127	255.0.0.0
Class B	128-191	255.255.0.0
Class C	192-223	255.255.255.0
Class D	224-239	-

It also tells how many networks & hosts will be there.

Networking

PAGE NO.
DATE: / /

→ We cant connect two switches directly.
→ Between Routers → crossover cable
→ we cannot connect straight cable for two similar devices
→ PC & Router → crossover
→ PC & Switch, Switch & Router → straight.

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→ Take the devices
→ Assign the i/p addresses
→ Router > enable (user mode) → (I can only access or enable the interfaces in this mode)
Router # conf t
Router (config)
→ (Priviledge mode)
→ (Executive mode)
→ (I can config. the router backup & check all preconfig. of current routers)

If there are multiple routers & I coant to change the name of router

Router (config) # hostname R1
R1 (config) # no hostname
Router (config) #

Router (config) # hostname R1
R1 (config) # enable password 1234
R1 (config) # exit
R1 # exit

R1 > enable
Password:
R1 #

R1 # show ip interface brief
Enonypt password
R1 # enable secret 12345

R1 # conf t
R1 # enable secret 12345
exit
exit

Remove passwords

conf t
no enable secret
exit

conf t
no enable password
exit

no shutdown → for enabling the interface

→ nslookup
→ tracert

Router :- ping 10.10.0.3

why lost packet?

Because it is learning. Initially switch & router are not equiped with the MAC address of each & every host. It is going to learn in the process.
i.e. due to unknown unicast frame

Router
Router > enable
Router # show arp.

DHCP

PT Switch
cannot connect more than 4 devices
for that
click on switch → Turn off switch →
add extra switch PT-switch-m-1CFe
for fast ethernet
→ Turn on

① Go to ~~dns~~ server
And configure it statically

192.168.0.1
255.255.255.0
192.168.0.1
0.0.0.0

DORA

② services → DHCP → ON
service

Default gateway 192.168.0.1
DNS server 10.0.0.1
↓
save

DNS

→ 2960 switch
→ Assign IP addresses to all devices & configure static.
Give DNS & default gateway same add.
→ Configure DNS (static)
→ Services > DNS > ON > add
→ HTTP > web browser.

→ tracert
→ nslookup

DNS, DHCP, HTML

We will make router DHCP itself.

→ Assign the ip addresses
→ Configure Router

```
>enable
>conf t
>interface g0/0
>ip address
>noshutdown

>ip dhcp pool net1
>network 10.0.0.1 255.0.0.0
>default-router 10.0.0.1
>do write memory (build & store configuration)
>exit
```

> interface g0/1
> ip address 20.0.0.1 255.0.0.0
> no shutdown
> ip dhcp pool net2
> network 20.0.0.1 255.0.0.0
> default-router 20.0.0.1
> do write memory

we will get ip addresses dynamically

→ How to assign a DNS server.

Next step is to assign a dns server
For that go to router CLI

> dns-server 20.0.0.4 (end config.)
> do write memory
> exit
> interface g0/0
> ip dhcp pool net1
> dns-server 20.0.0.4
> do write memory

Now go to DNS server.

services > DNS > ON > add

PAGE NO.:
DATE: / /

DCE → data comm. equipment

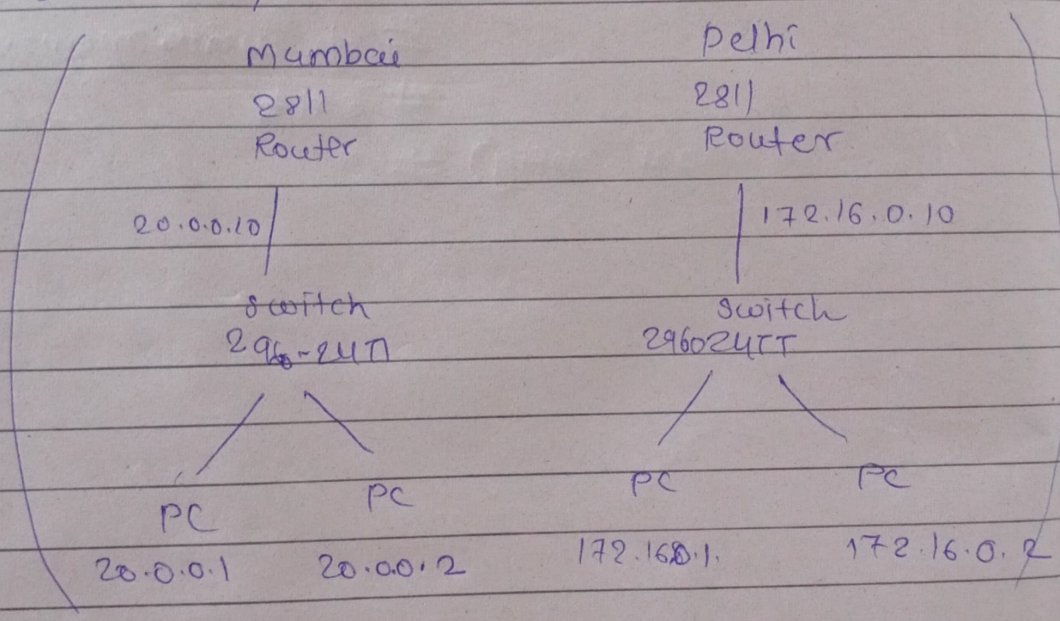
DVRP

Serial interface For longer distance & transmit data serially

→ After connecting devices
→ Go to router
WIC 2T drag & drop & turn on

Similarly For 2nd router.

Serial 0/3/0 → Serial 0/3/0



→ configure i/p addresses
→ configure Router
> enable
> conf t
> hostname Mumbai
> interface F0/0
> ip address 20.0.0.10 255.0.0.0
> no shutdown

> Router > config
> Serial 0/3/0 > clk setting 64000
ip config. 192.168.30.1 > ON

For next router, configure it
keep the clock settings as not set

Go to router
exit

mumbai (config) #router rip
network 20.0.0.0
network 192.168.30.0
do write memory
exit

mumbai (config) #