

# EXPERIMENT-15

## Design the network model for Subnetting – Class C Addressing using Packet Tracer.

**Aim:** To implement Data Link Layer Traffic Simulation using Packet Tracer Analysis of CSMA/CD & CSMA/CA.

**Software / Apparatus required:** Packet Tracer / End devices, Switches, connectors.

### Requirements:

1. End device - They are the devices through which we can pass message from one device to another and they are interconnected.
2. Switch/Hub - Interface Between two devices.
3. Cable - Used to connect two devices

### Procedure:

STEP 1: Click on end devices, select generic Pc's drag and drop it on the window. Click on SWITCH drag and drop it on the window.

STEP 2: Select the straight through cable and connect all end device to switch. Assign the IP

address for all end devices. (Double click the end device Select → desktop → IP configuration static)

STEP 3: Now set the IP address to Host A (192.168.1.1) in static mode. Similarly set IP address

for Host B (192.168.1.2) and Host C (192.168.1.3)

STEP 4: To view the IP address, give ip config command in command prompt. Using ping

command, we can establish communication between two host devices.

STEP 5: Now display the packet transmission in simulation mode.

The screenshot shows the Cisco Packet Tracer interface in simulation mode. The network topology includes a Router (R1) connected to a Switch (Switch5), which is connected to a Server (Server-PT) and a PC (PC-PT). The PC has IP 192.168.0.1 and the Server has IP 192.168.0.2. The Simulation Panel on the right displays an Event List with a table of events and play controls.

Vis.	Time(sec)	Last Device
0.000	--	--
0.000	--	--
0.001	--	PCS
0.001	--	--
0.002	--	PCS
0.002	--	Switch5
0.003	--	Switch5
0.003	--	Server1
Visible 0.004	--	Server1
Visible 0.004	--	Switch5

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Mesh, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SRM, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Time: 00:25:58.552 PLAY CONTROLS

Scenario 0

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Successful PCS Server1 ICMP 0.000 N 0 (edit) (delete)