

# COMPUTER NETWORKS

## Assignment - 5

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CLASS : CSE-B

SUBJECT : COMPUTER NETWORKS

### Objective:

To connect Admin, HR, and other departments using routers, switches, and wireless routers for secure and seamless communication.

### Network Devices Used:

- 1 Router (ISR4321)
- 1 Switch (2960-24TT)
- 5 Wireless Routers (WRT300N)
- 1 Laptop (Admin – Department1)
- 4 PCs (Departments 2 to 5)
- Cables (Copper Straight-Through)

### IP Addressing Scheme:

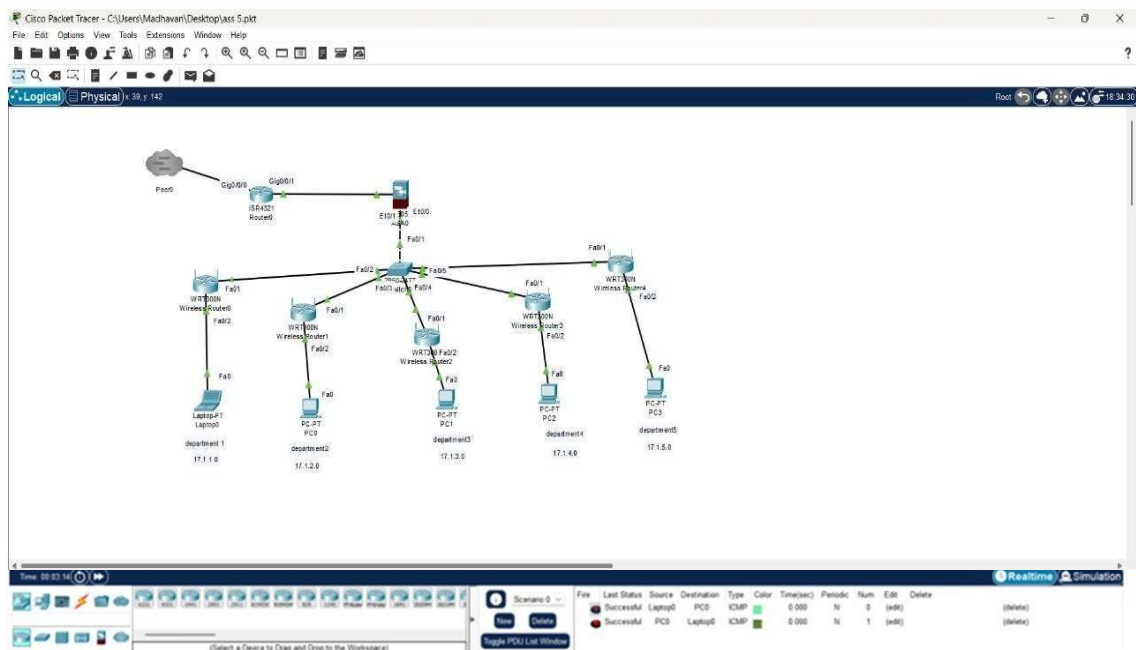
Department	Device	IP Address	Subnet Mask
department1	Laptop	17.1.1.10	255.255.255.0
department2	PC	17.1.2.10	255.255.255.0
department3	PC	17.1.3.10	255.255.255.0
department4	PC	17.1.4.10	255.255.255.0
department5	PC	17.1.5.10	255.255.255.0
department1	Wireless Router	17.1.1.1	255.255.255.0
department2	Wireless Router	17.1.2.1	255.255.255.0
department3	Wireless Router	17.1.3.1	255.255.255.0
department4	Wireless Router	17.1.4.1	255.255.255.0
department5	Wireless Router	17.1.5.1	255.255.255.0

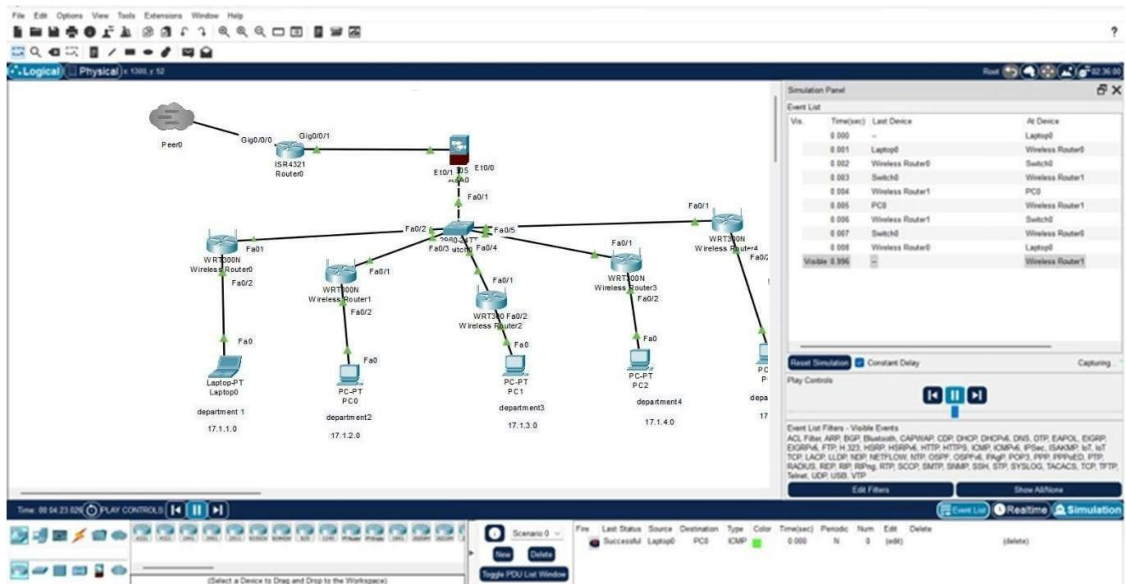
### Procedure:

1. Placed required devices and connected using appropriate cables.
2. Assigned static IP addresses to each device.

3. Configured wireless routers with SSIDs for each department.
4. Set up static routes for communication between all departments.
5. Verified connectivity using the ping command.

Output:





```

PC0
Physical  Config  Desktop  Programming  Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 17.1.1.1

Pinging 17.1.1.1 with 32 bytes of data:

Reply from 17.1.1.1: bytes=32 time=1ms TTL=128
Reply from 17.1.1.1: bytes=32 time=1ms TTL=128
Reply from 17.1.1.1: bytes=32 time=1ms TTL=128
Reply from 17.1.1.1: bytes=32 time=1ms TTL=128

Ping statistics for 17.1.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
  
```