Department of Computer Science and Engineering

Experiment Name: Packet Thgough a Router

Experiment No: 2

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1 Objective

In this lab report, we explore how data packets travel through a router. We'll study how routers decide where to send packets and how fast they can do it. By doing this, we aim to understand better how routers help computers communicate on networks.

2 Network Diagram

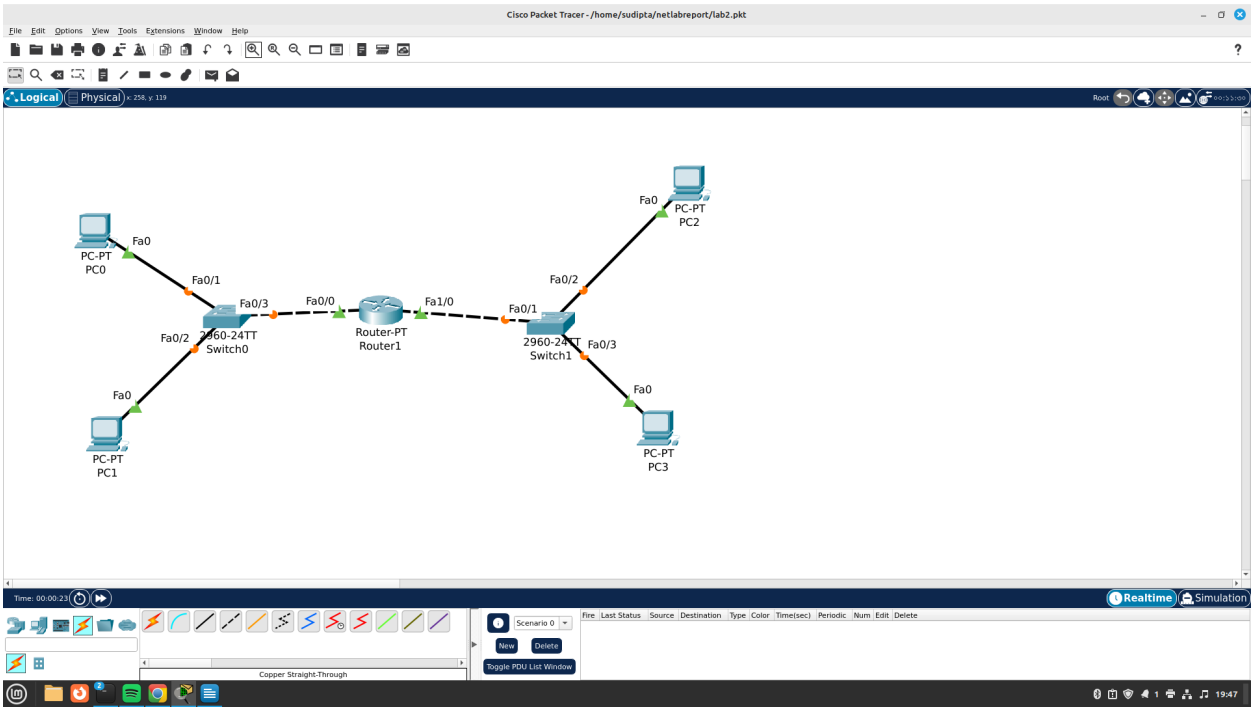

Figure 1: Network Diagram for the Experiment Packet Through A Router

3 Procedure

We use Cisco Packet Tracer for implementing this experiment.We take all the pc from the cisco packet device pan.We also take the Router from the device pan.The router we use is Router-PT.We connect all the device using fastethernet port.We also take 2 switch.Then we assign the ip address and subnet musk for all the computer.We assign 2 network ip address for the router.We have to insert ehternet card to the router.To test the connection we send ICMP packet from one node to another node.We also used those commands to test the connectivity of the network.

```
$ ping 192.168.3.3
$ tracert 192.168.3.3
```

4 Result

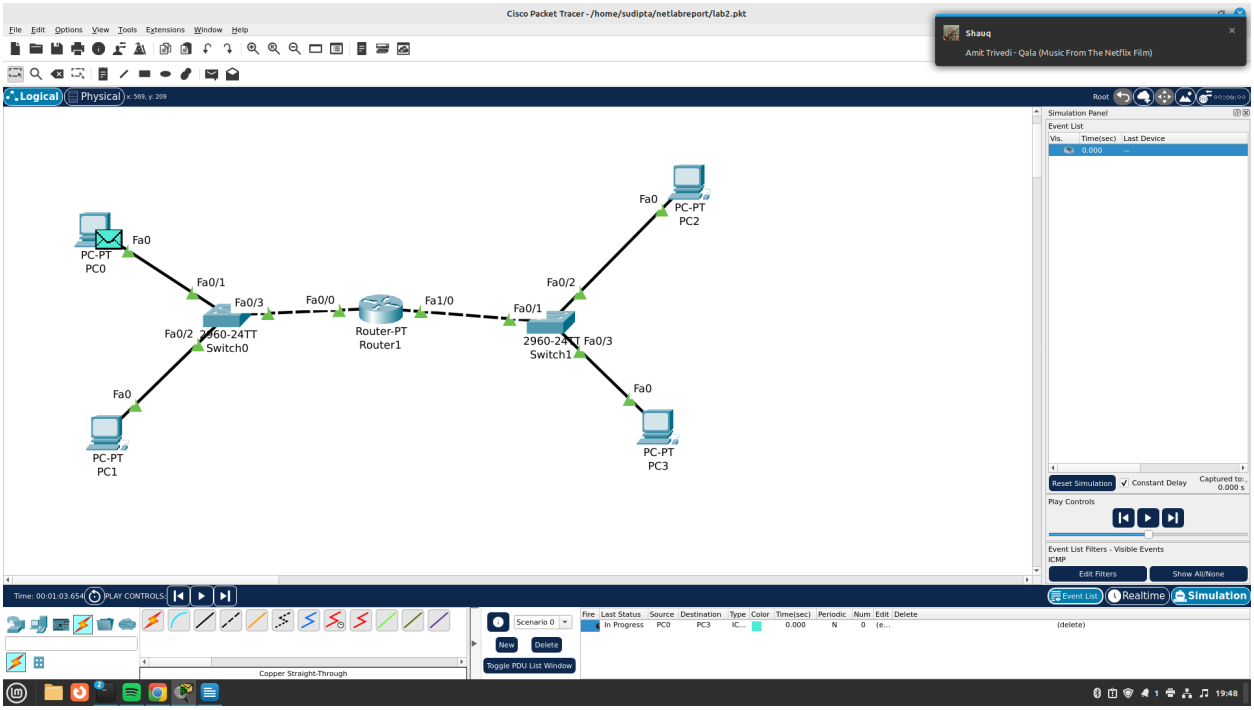

Figure 2: The Packet is leaving the source computer

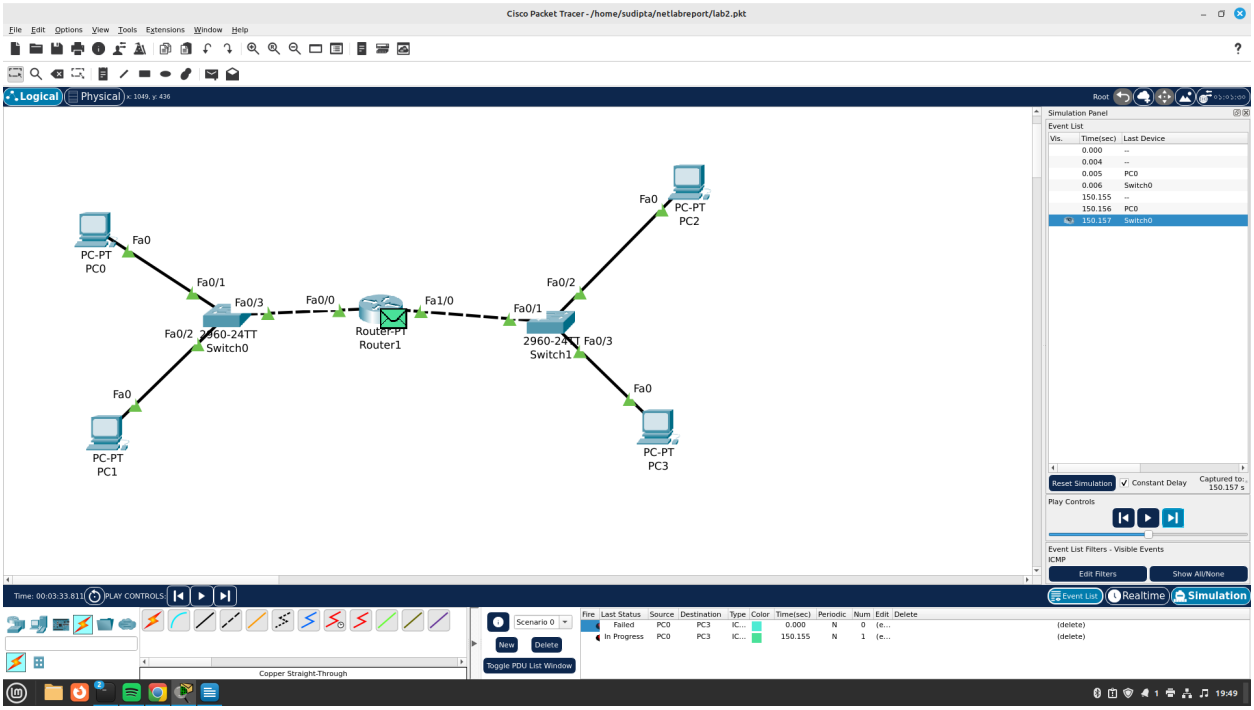

Figure 3: The Packet reached the router

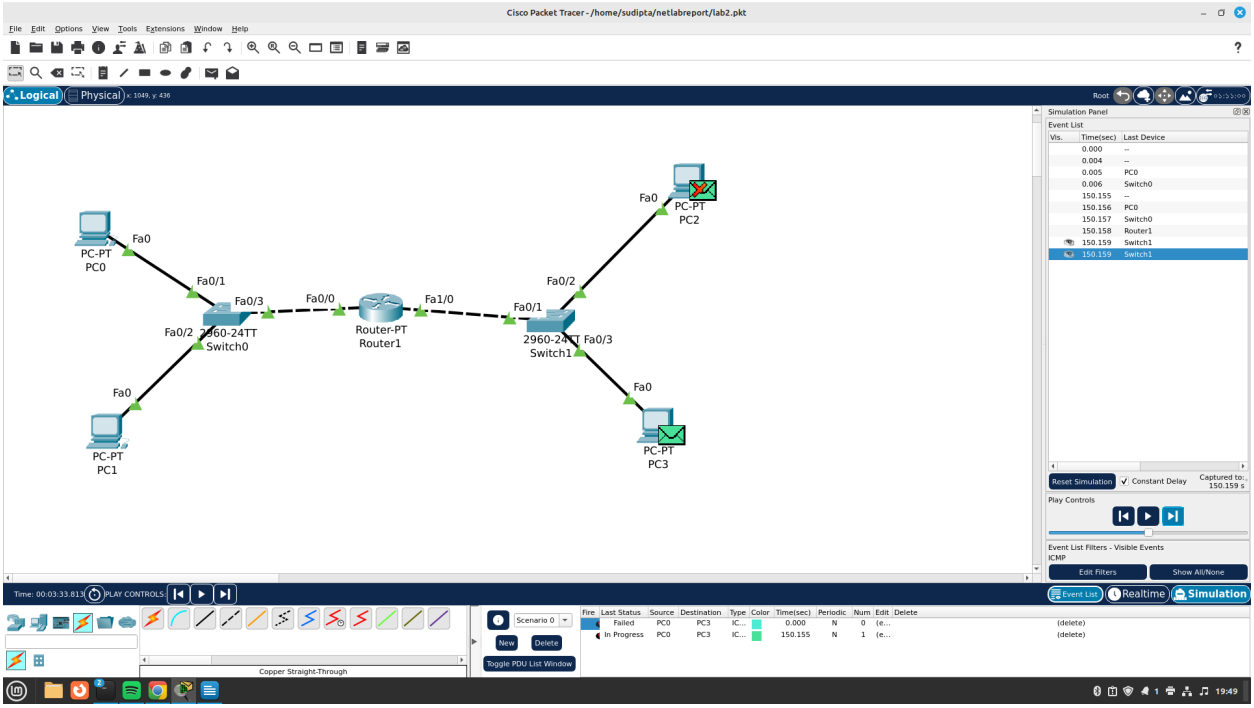

Figure 4: The Packet reached the destination

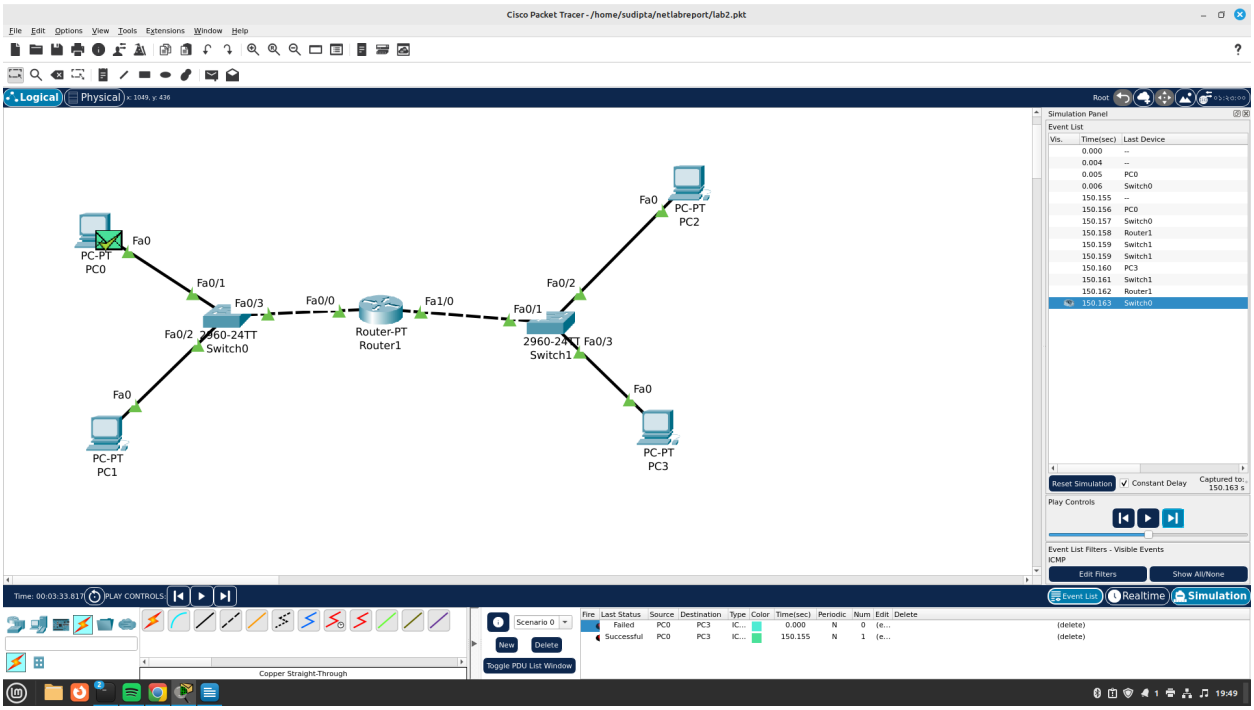

Figure 5: The Ackowledgement reached the source node

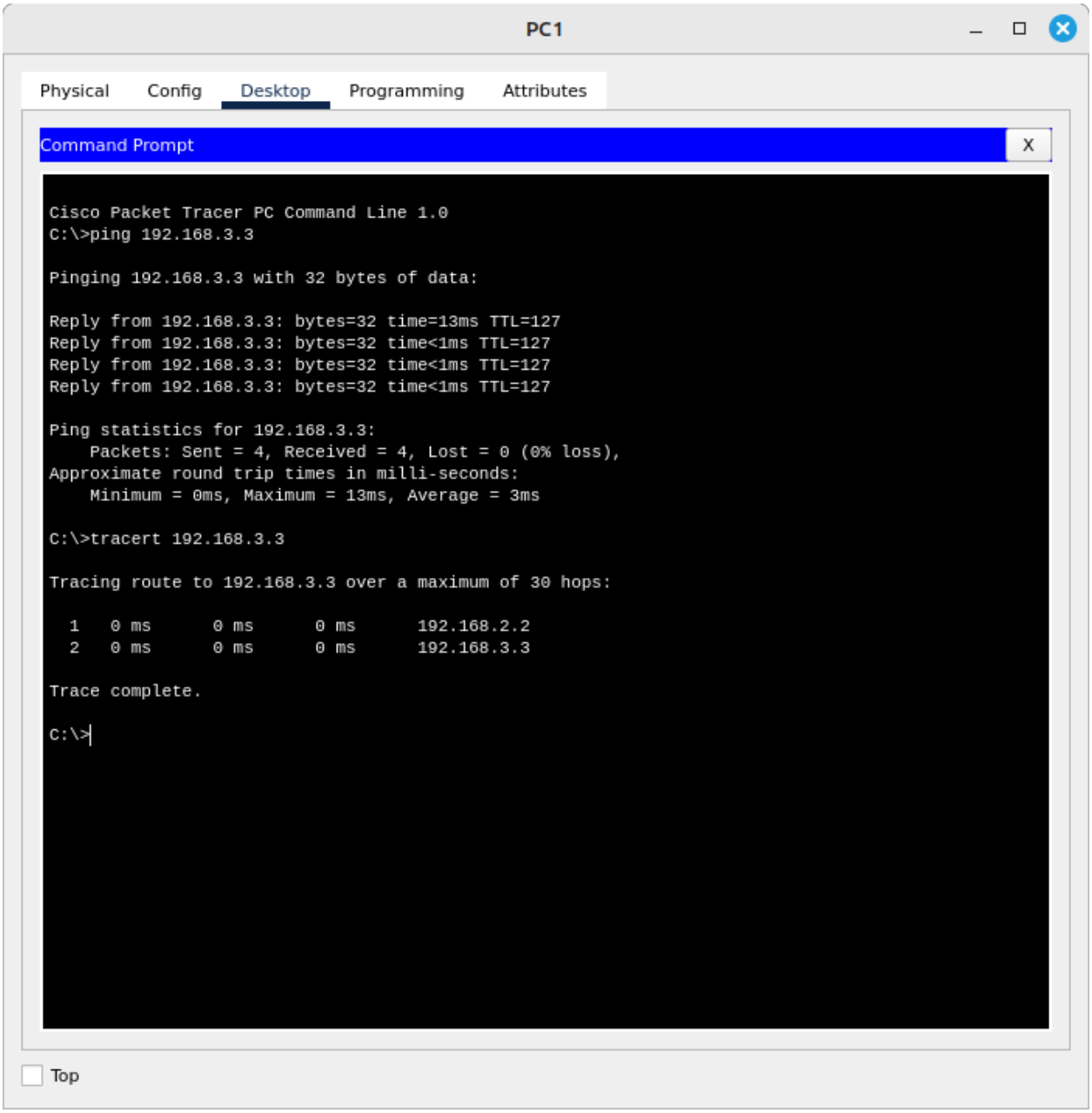

Figure 6: ping and tracert result