



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Experiment Name: Router Configuration using CLI

Experiment No: 3

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1 Objective

In this experiment we are going to learn about router configuration using command line interface (CLI). We will connect routers with pc from command prompt and check their connection through cmd.

2 Network Diagram

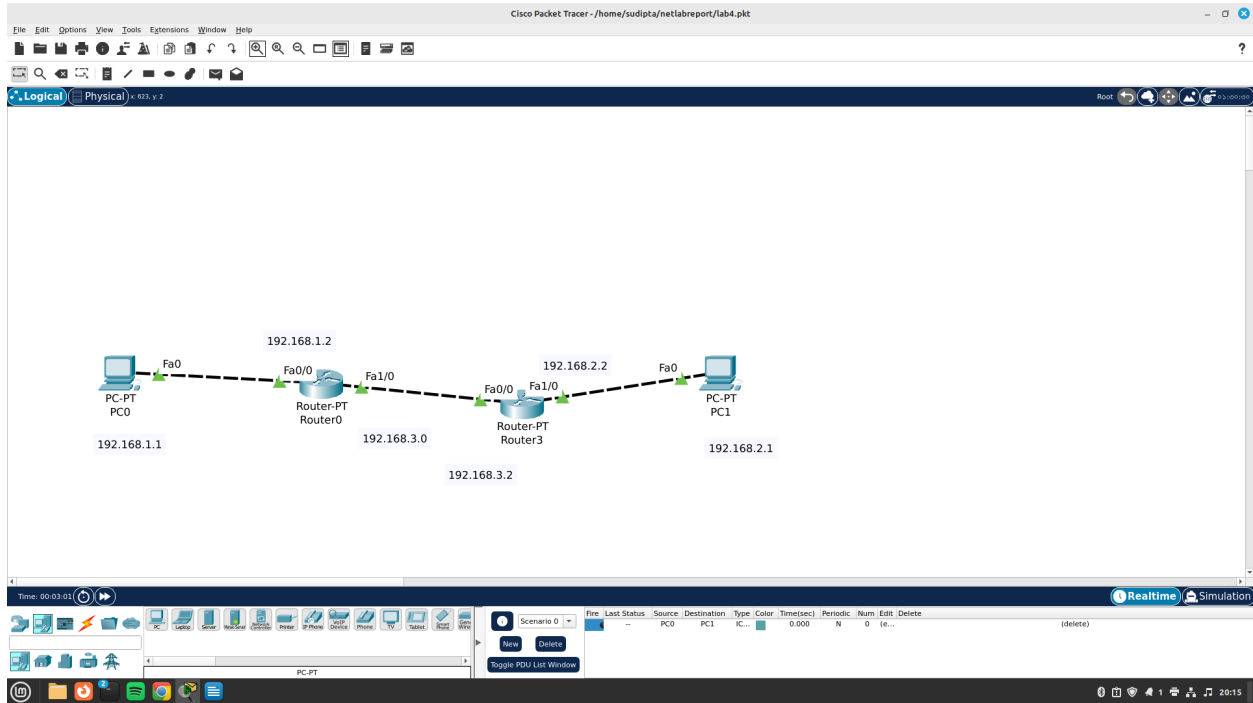


Figure 1: Network Diagram for Router configuration using CLI

3 Procedure

The above network diagram is created using Cisco Packet Tracer software. We use 4 PC-PT and 2 Router-PT here. The configuration of the router is done using CLI.

3.1 Router 1

```
Continue with configuration dialog? [yes/no]: no
Router>en %enable
Router#conf t %configure terminal
Router(config)#int fa0/0 %interface fa0/0
Router(config-if)#ip add 192.168.1.2 255.255.255.0
Router(config-if)#no shut %no shutdown i.e. make the port on
Router(config-if)#
Router(config-if)#exit
Router(config)#int fa1/0
Router(config-if)#ip add 192.168.3.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#exit
```

```

Router#
Router#en
Router#conf t
Router(config)#ip route 192.168.2.0 255.255.255.0 192.168.3.2
Router(config)#end
Router#
Router#sh ip route
C 192.168.1.0/24 is directly connected, FastEthernet0/0
S 192.168.2.0/24 [1/0] via 192.168.3.2
C 192.168.3.0/24 is directly connected, FastEthernet1/0
Router#

```

3.2 Router 2

```

Continue with configuration dialog? [yes/no]: no
Router>en
Router#conf t
Router(config)#int fa1/0
Router(config-if)#ip add 192.168.2.2 255.255.255.0
Router(config-if)#no shut
Router(config-if)#
Router(config-if)#exit
Router(config)#int fa0/0
Router(config-if)#ip add 192.168.3.2 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#exit
Router#
Router#en
Router#conf t
Router(config)#ip route 192.168.1.0 255.255.255.0 192.168.3.1
Router(config)#end
Router#
Router#sh ip route
S 192.168.1.0/24 [1/0] via 192.168.3.1
C 192.168.2.0/24 is directly connected, FastEthernet1/0
C 192.168.3.0/24 is directly connected, FastEthernet0/0
Router#

```

4 Result

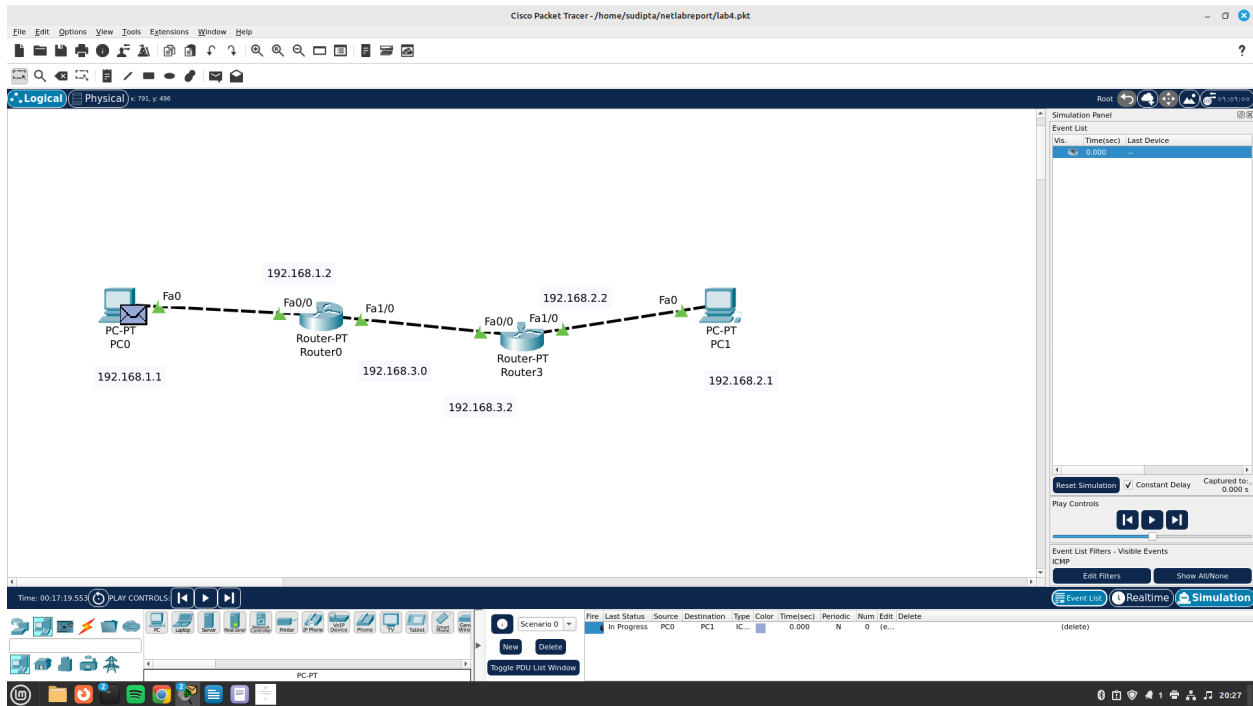


Figure 2: The Packet is leaving the source computer

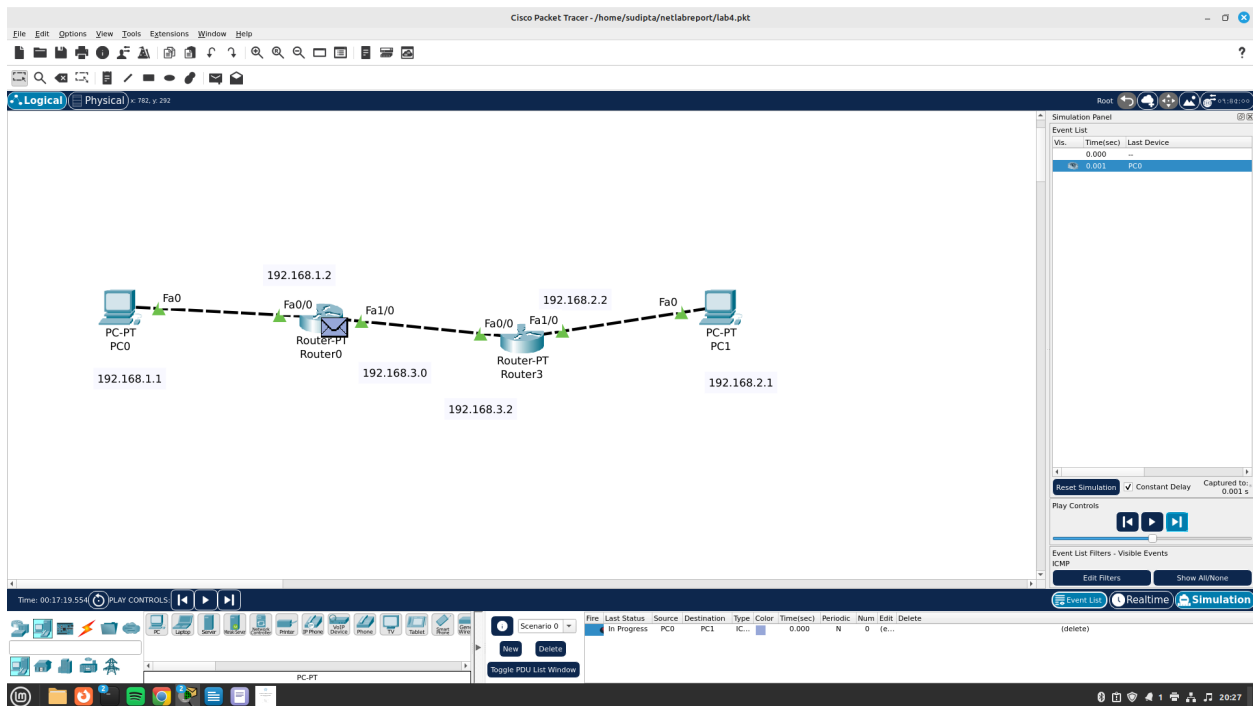


Figure 3: The Packet reached the first router

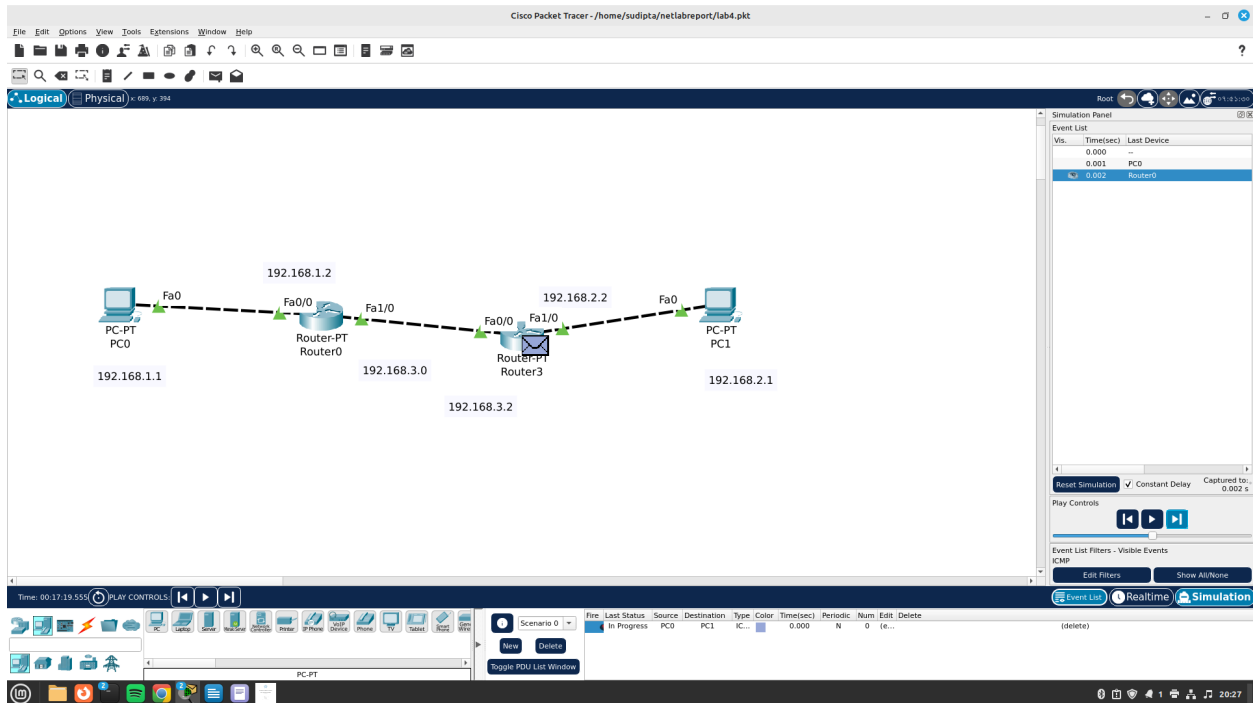


Figure 4: The Packet reached the second router

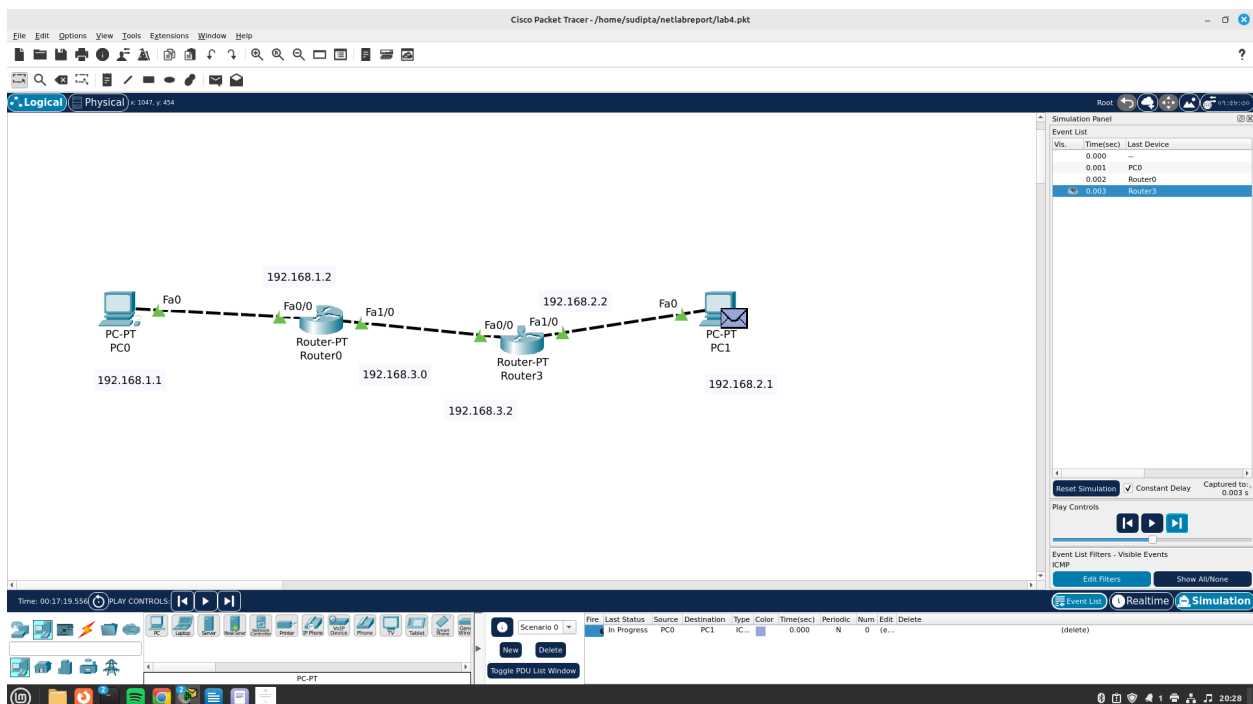


Figure 5: The Packet reached the destination

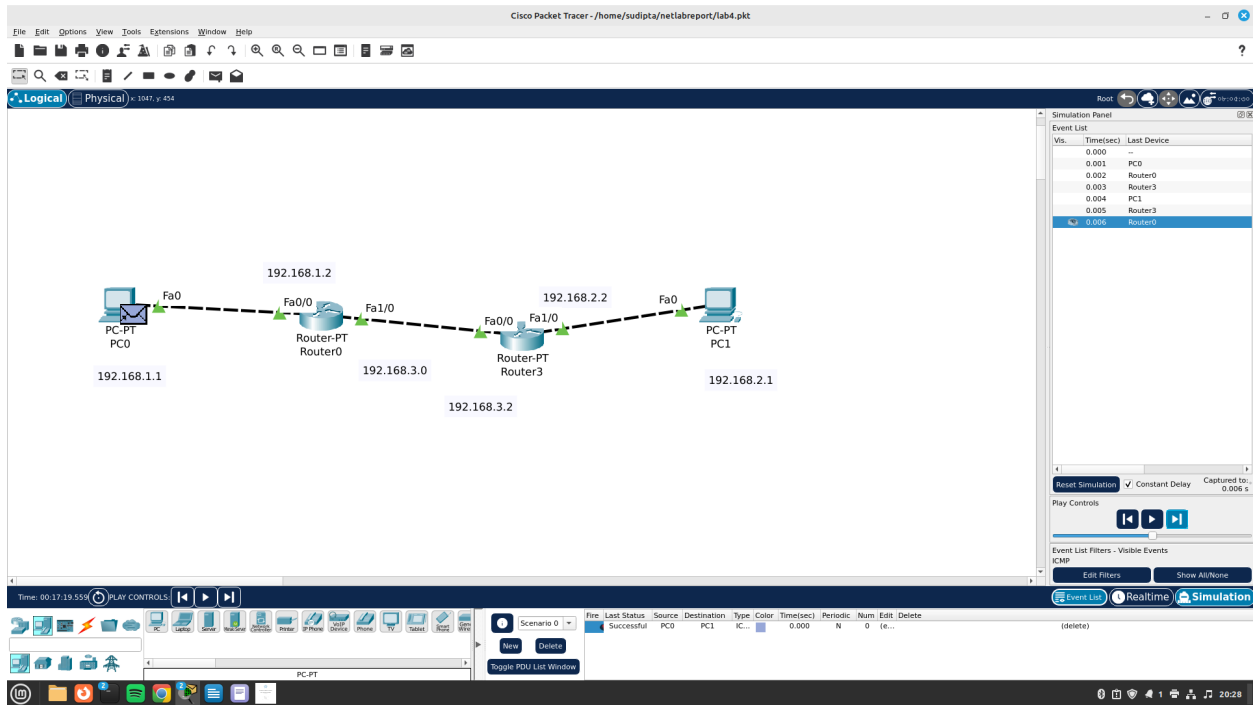


Figure 6: The ACK reached the source node

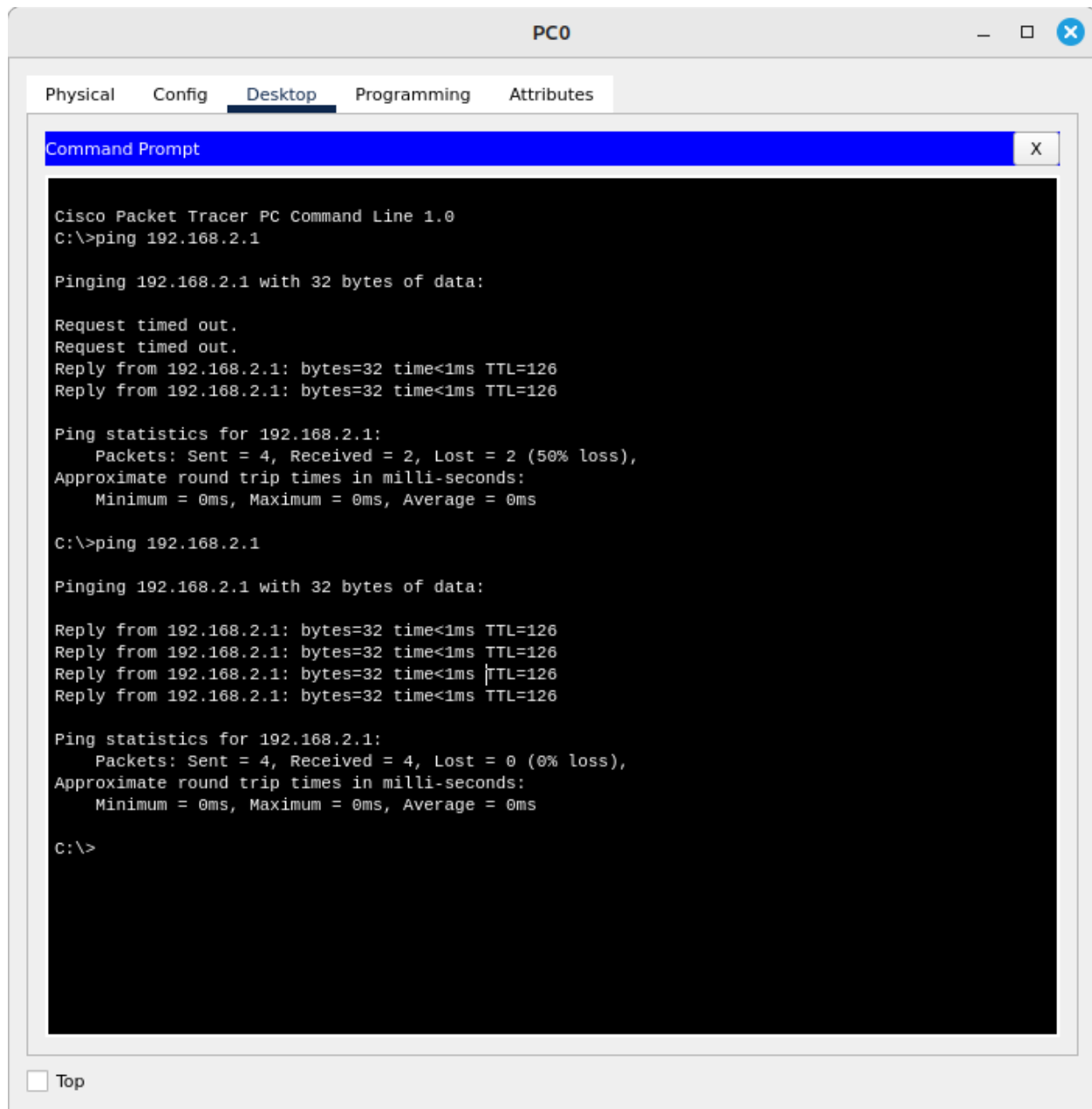


Figure 7: Ping result for the given network