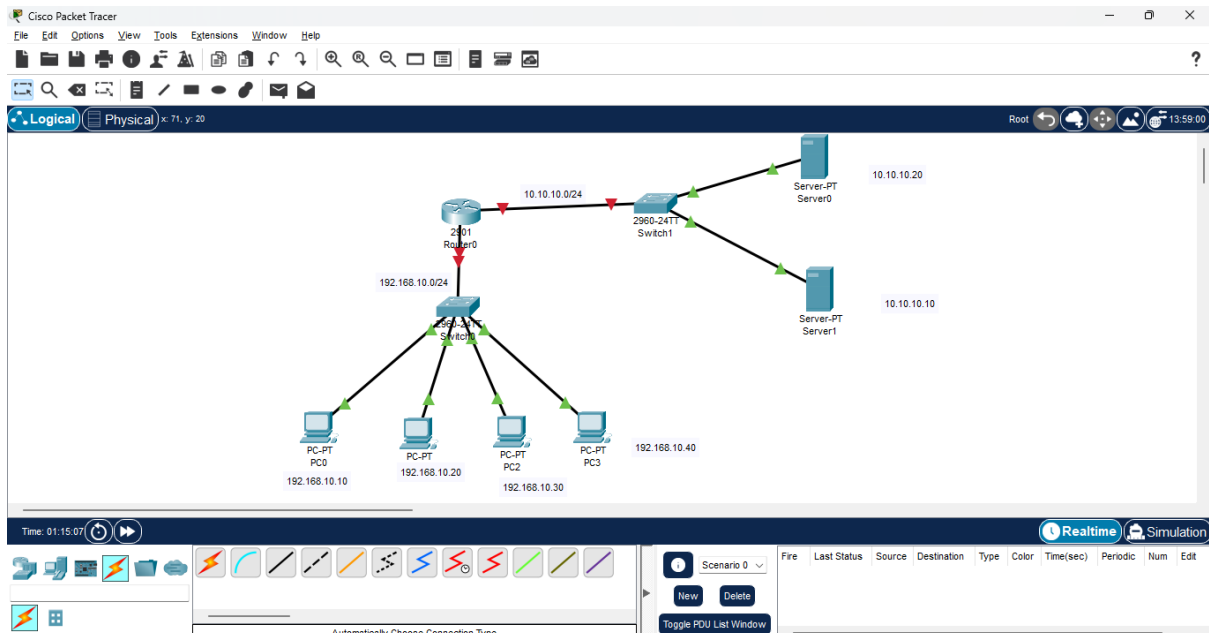


Q10) Implement ACLs to restrict traffic based on source and destination ports. Test rules by simulating legitimate and unauthorized traffic.

Access Control Lists (ACLs) are used in Cisco devices to **filter traffic** based on conditions like source/destination IPs, protocols, and ports. This ensures network security by allowing only authorized traffic.



Steps:

```
Router0
Physical Config CLI Attributes
IOS Command Line Interface
export@cisco.com.
Cisco CISCO2911/K9 (revision 1.0) with 491520K/32768K bytes of memory.
Processor board ID FTX152400KS
3 Gigabit Ethernet interfaces
DRAM configuration is 64 bits wide with parity disabled.
255K bytes of non-volatile configuration memory.
249856K bytes of ATA System CompactFlash 0 (Read/Write)

--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]:
Press RETURN to get started!

Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/1
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed
state to up
ip address 192.168.10.1 255.255.255.0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/2
Router(config-if)#no shutdown
```

```
Router0
Physical Config CLI Attributes
IOS Command Line Interface

Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#acce
Router(config)#access-list 10 per
Router(config)#access-list 10 permit ?
  A.B.C.D Address to match
    any Any source host
    host A single host address
Router(config)#access-list 10 permit host 192.168.10.10
Router(config)#access-list 10 permit host 192.168.10.20
Router(config)#
Router(config)#
Router(config)#acc
Router(config)#access-list 10 de
Router(config)#access-list 10 deny any ?
  <cr>
Router(config)#access-list 10 deny any
Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#int gig0/1
Router(config-if)#
Router(config-if)#
Router(config-if)#
Router(config-if)#access-
Router(config-if)#access-gr
Router(config-if)#access-grou
Router(config-if)#ip acc
Router(config-if)#ip access-group 10
```

**Result:**

```
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.10.10.10

Pinging 10.10.10.10 with 32 bytes of data:

Request timed out.
Reply from 10.10.10.10: bytes=32 time<1ms TTL=127
Reply from 10.10.10.10: bytes=32 time<1ms TTL=127
Reply from 10.10.10.10: bytes=32 time=9ms TTL=127

Ping statistics for 10.10.10.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 9ms, Average = 3ms
C:\>
```

```
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.10.10.20

Pinging 10.10.10.20 with 32 bytes of data:

Request timed out.
Reply from 10.10.10.20: bytes=32 time=12ms TTL=127
Reply from 10.10.10.20: bytes=32 time<1ms TTL=127
Reply from 10.10.10.20: bytes=32 time=10ms TTL=127

Ping statistics for 10.10.10.20:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 12ms, Average = 7ms
C:\>
```