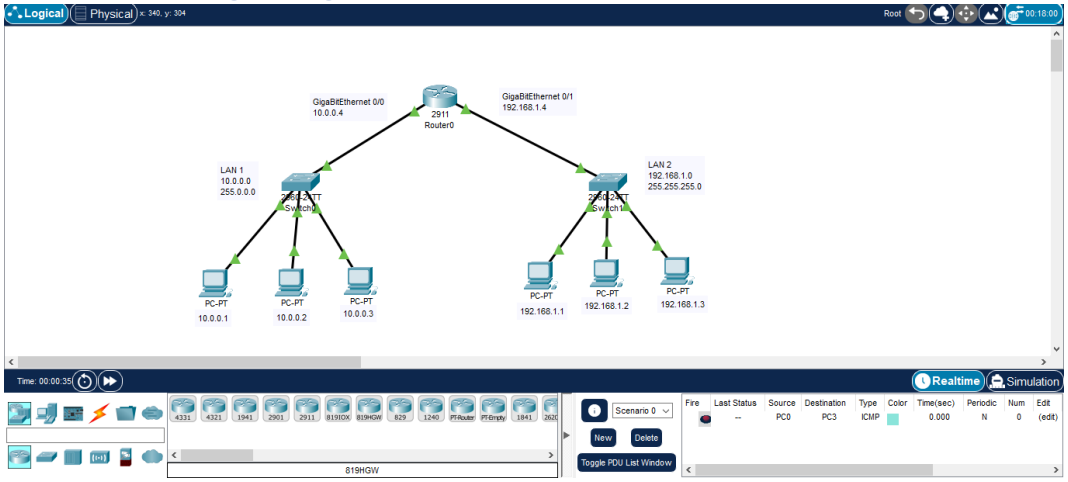
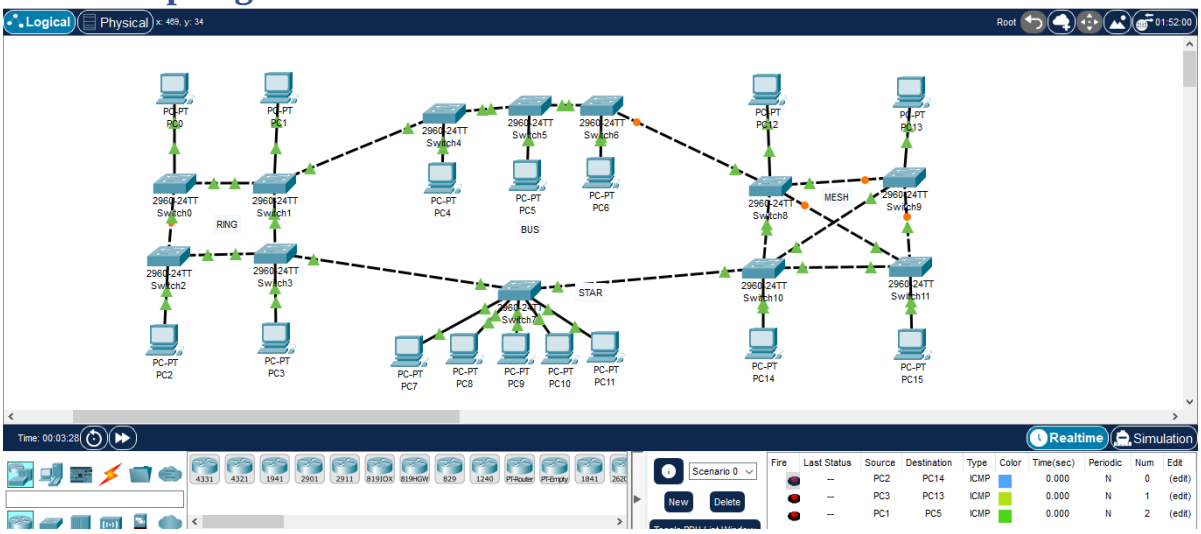
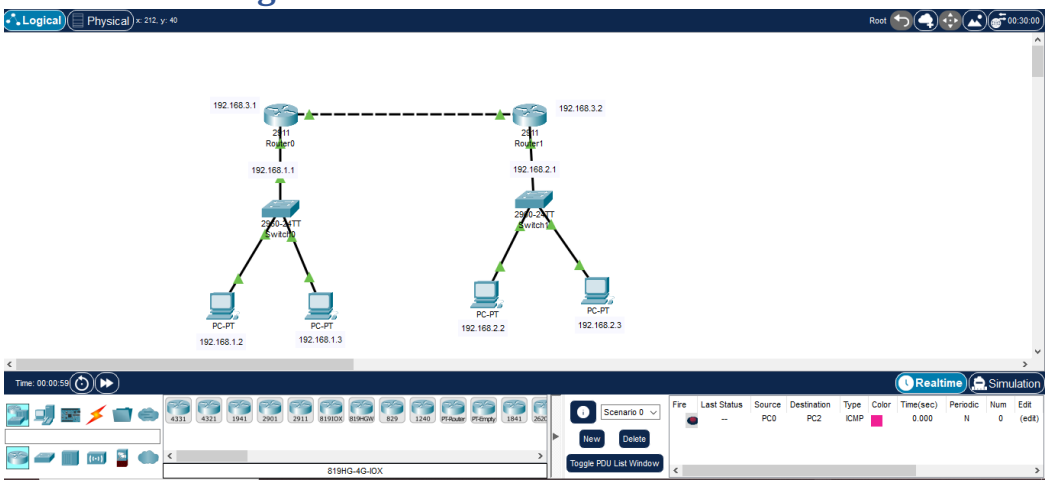
Lab#1: Networking using Router



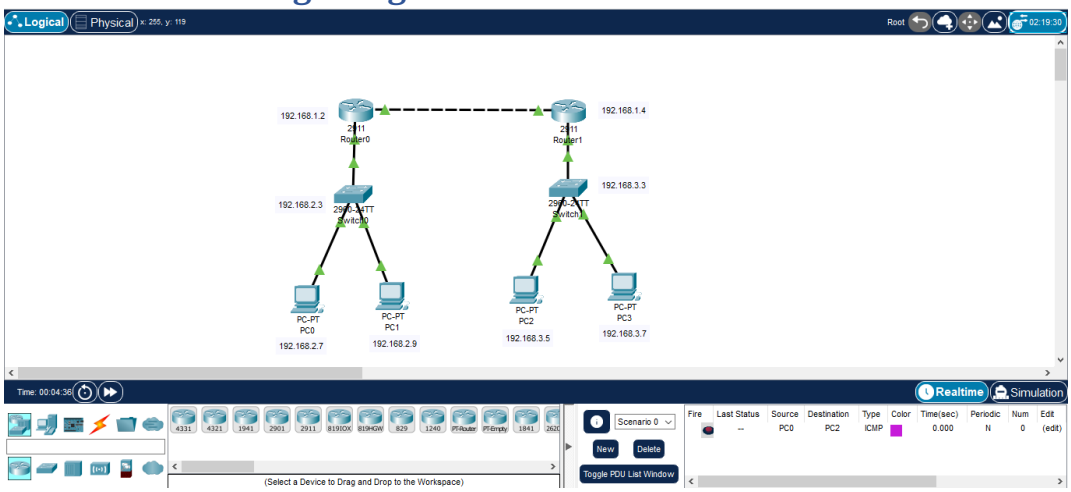
Lab#2: Topologies



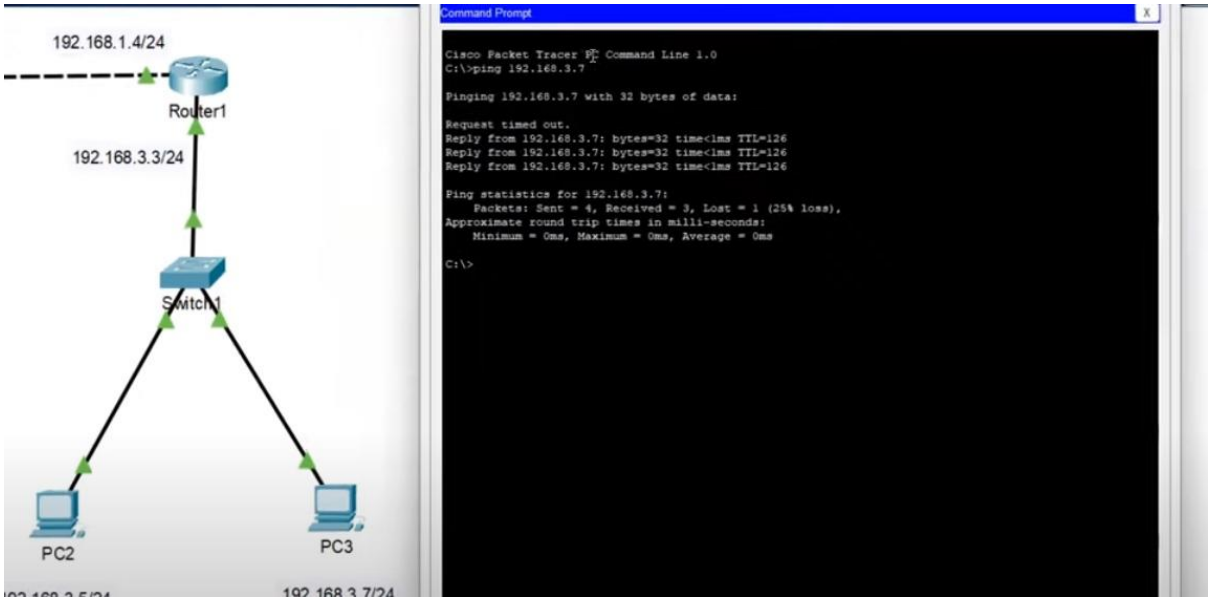
Lab#3: Static Routing



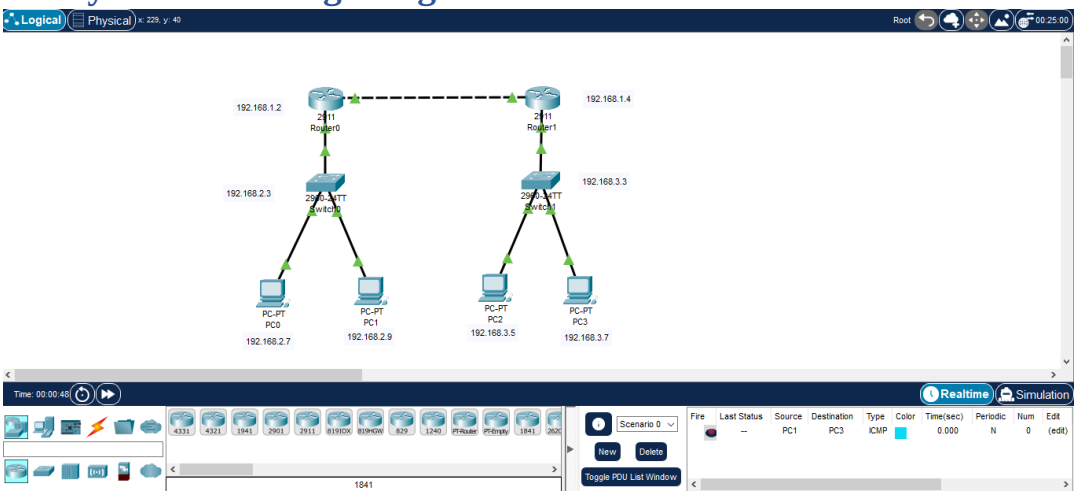
Lab#3B: Static Routing using CLI

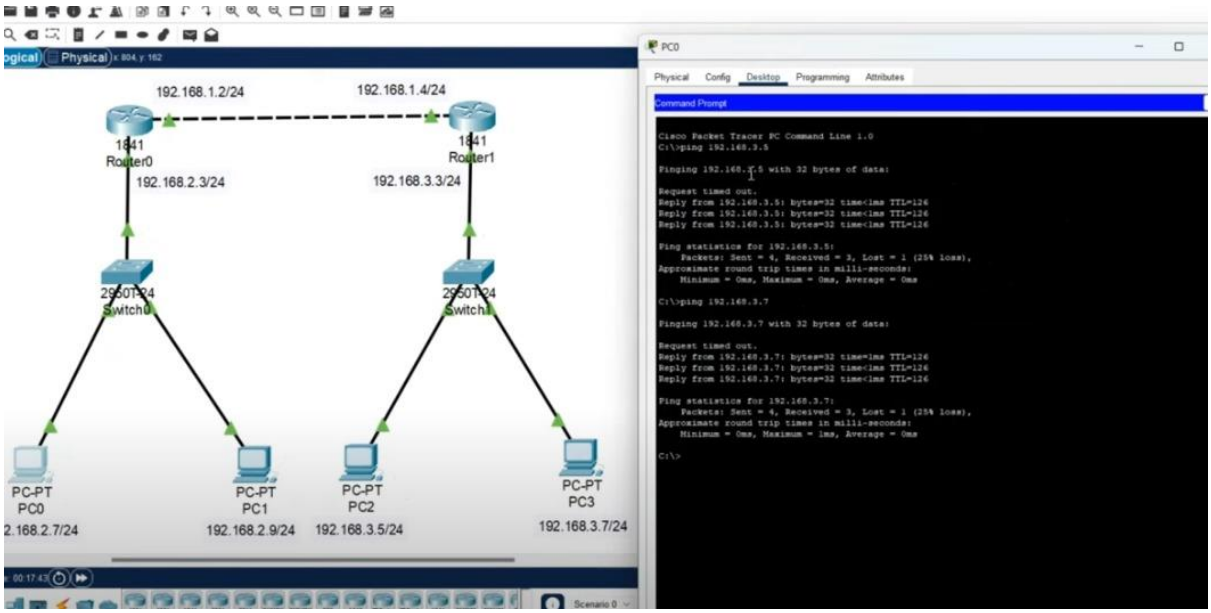



24
Switch1
PC3
importers, exporters, distributors and users are responsible for
compliance with U.S. and local country laws. By using this product you
agree to comply with applicable laws and regulations. If you are unable
to comply with U.S. and local laws, return this product immediately.
A summary of U.S. laws governing Cisco cryptographic products may be four
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html
If you require further assistance please contact us by sending email to
export@cisco.com.
Cisco 1841 (revision 5.0) with 114688K/16384K bytes of memory.
Processor board ID FTX0947Z18E
M860 processor: part number 0, mask 49
2 FastEthernet/IEEE 802.3 interface(s)
191K bytes of NVRAM.
63488K bytes of ATA CompactFlash (Read/Write)
Cisco IOS Software, 1841 Software (C1841-ADVIPSERVICESK9-M), Version 12.4
(fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Wed 18-Jul-07 04:52 by pt_team
Press RETURN to get started!
Router>en
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.

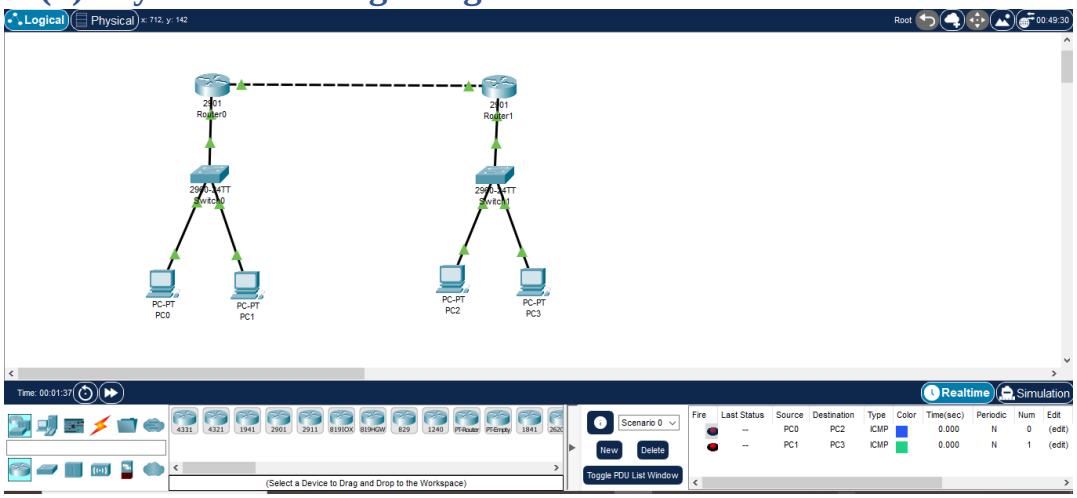

192.168.1.4/24
Router1
192.168.3.3/24
Switch1
PC2
PC3
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.3.7
Pinging 192.168.3.7 with 32 bytes of data:
Request timed out.
Reply from 192.168.3.7: bytes=32 time<1ms TTL=126
Reply from 192.168.3.7: bytes=32 time<1ms TTL=126
Reply from 192.168.3.7: bytes=32 time<1ms TTL=126
Ping statistics for 192.168.3.7:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>

Lab#4: Dynamic Routing using CLI

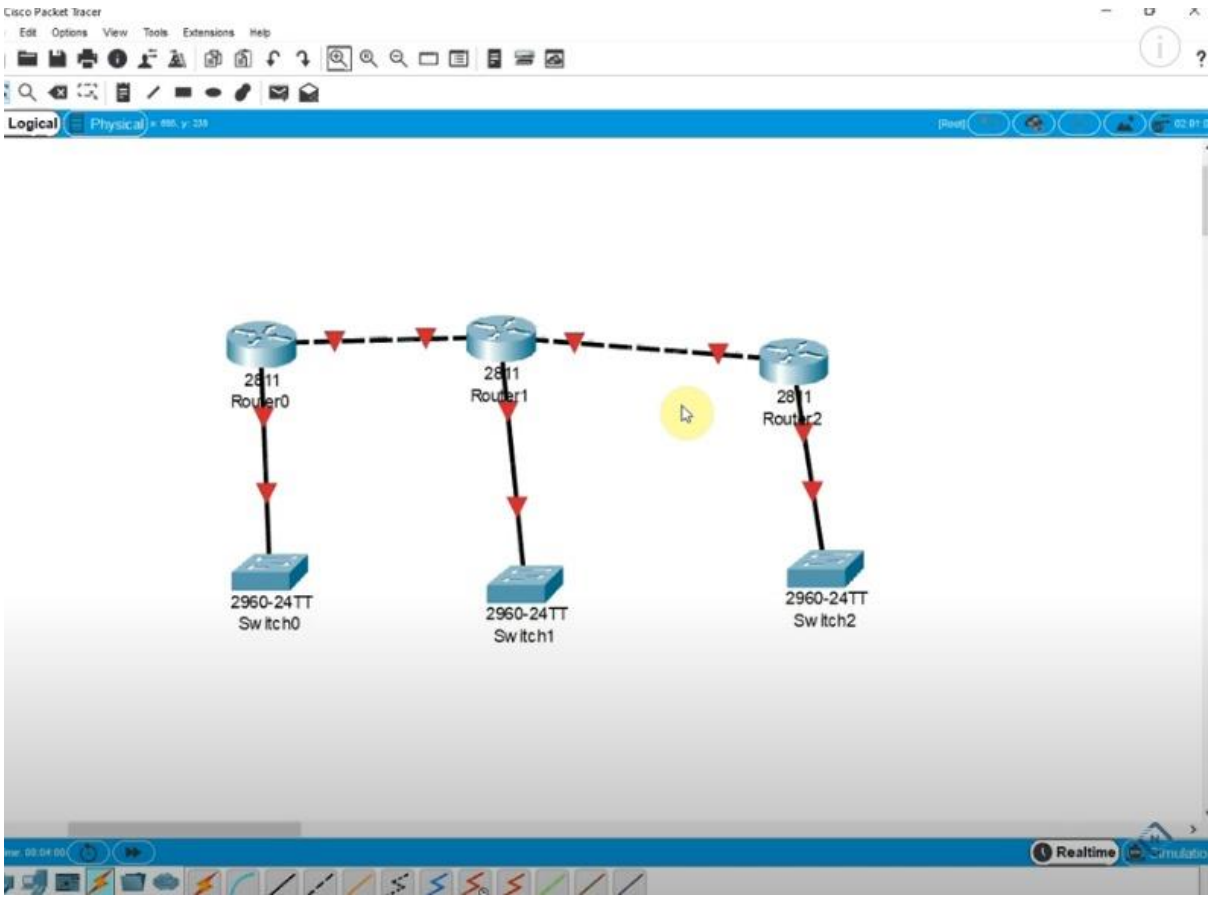


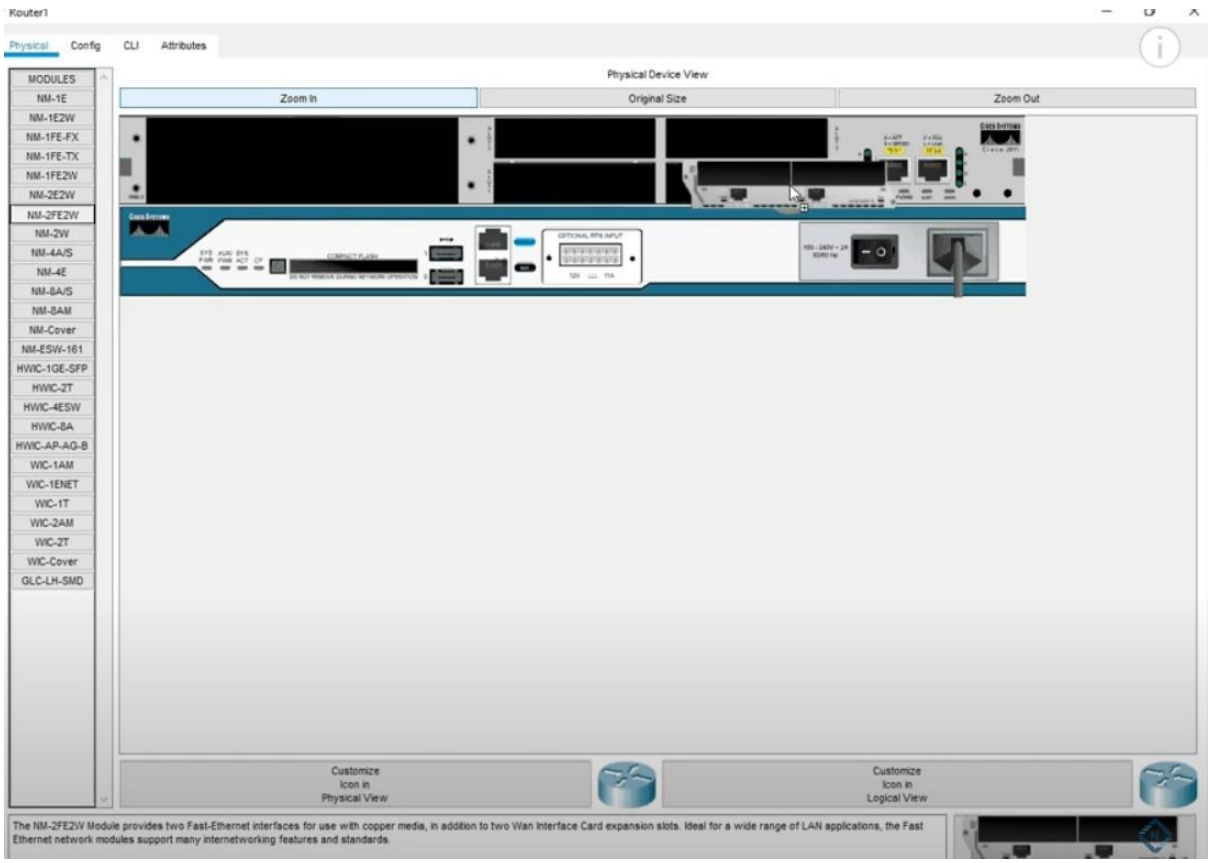


Lab#4(b): Dynamic Routing using RIP

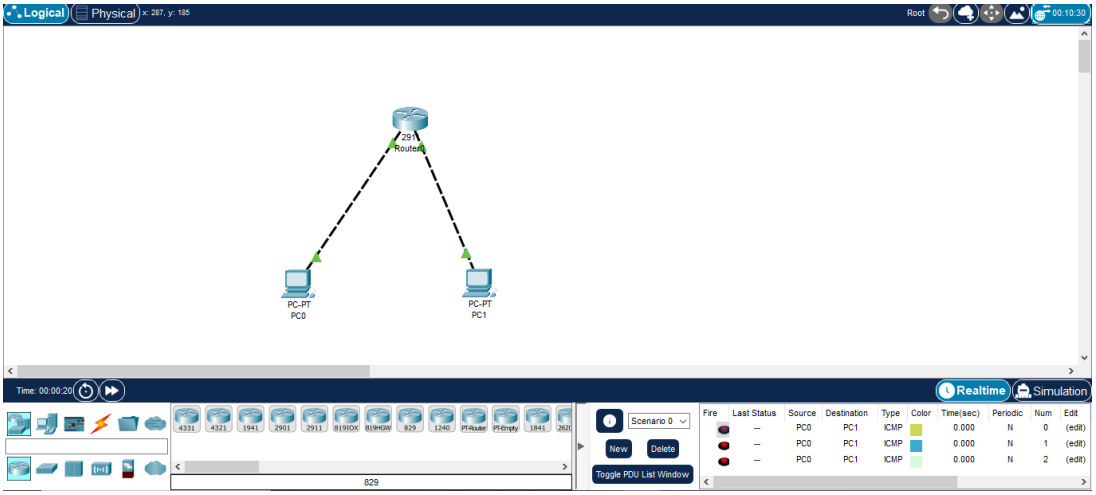


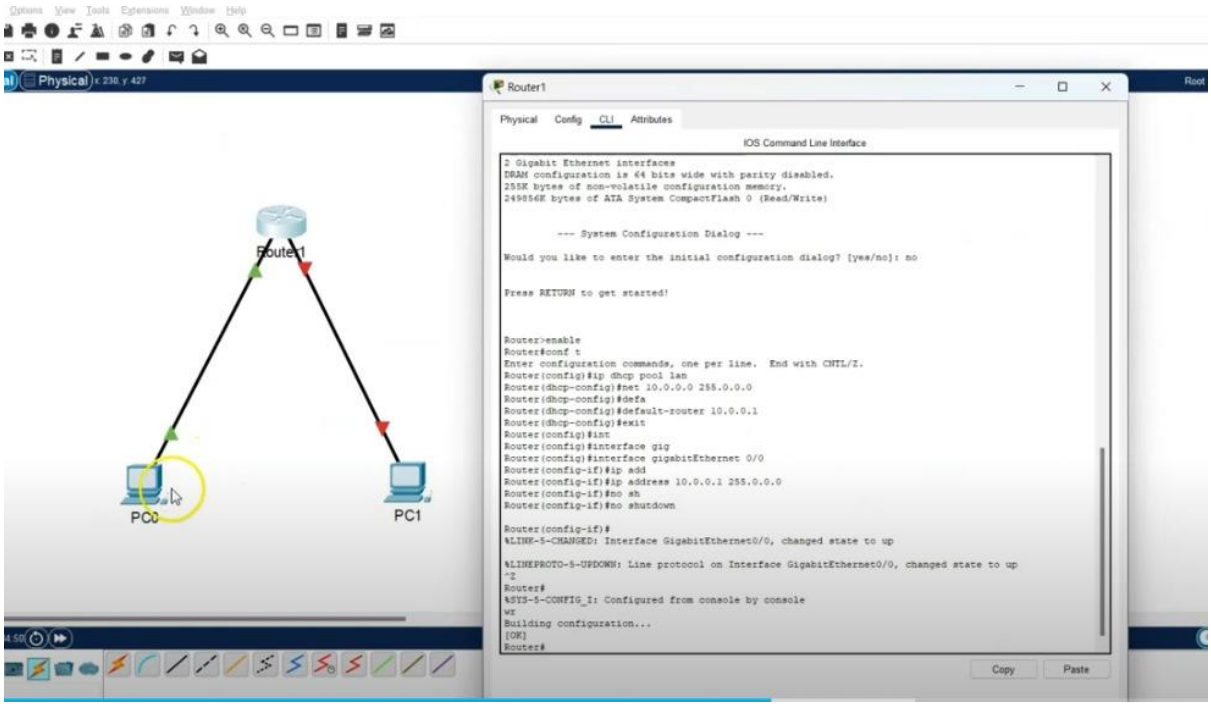
Lab#4(c): INSERTING PORT:

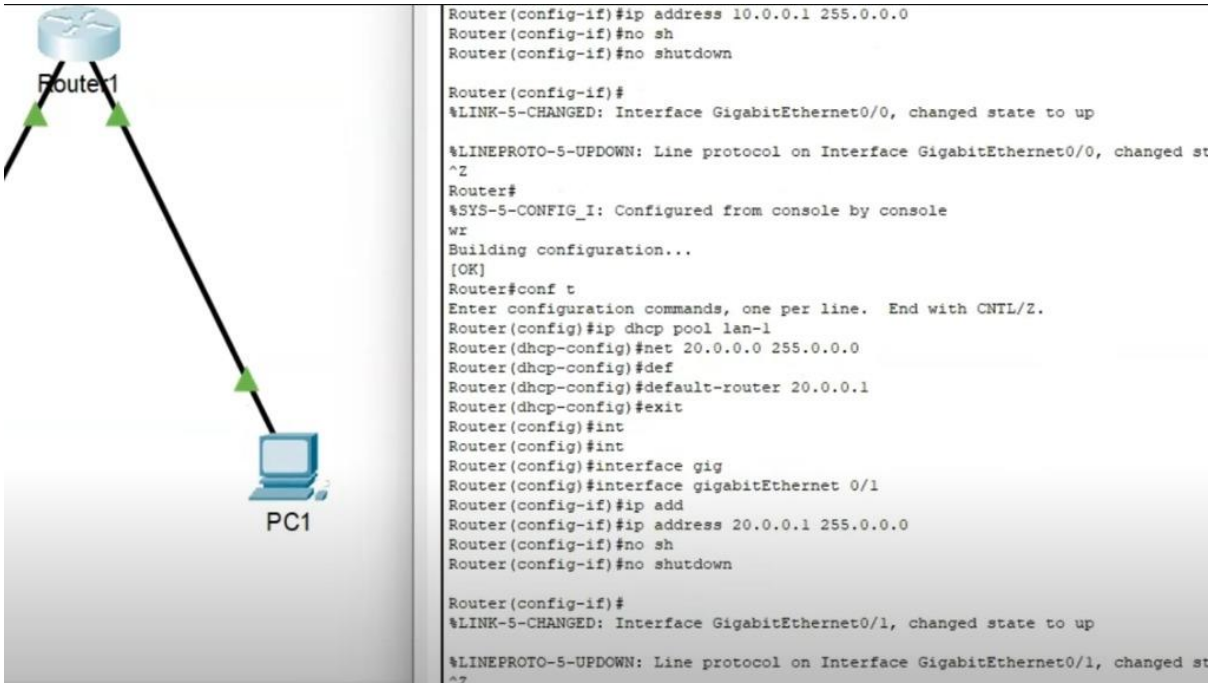




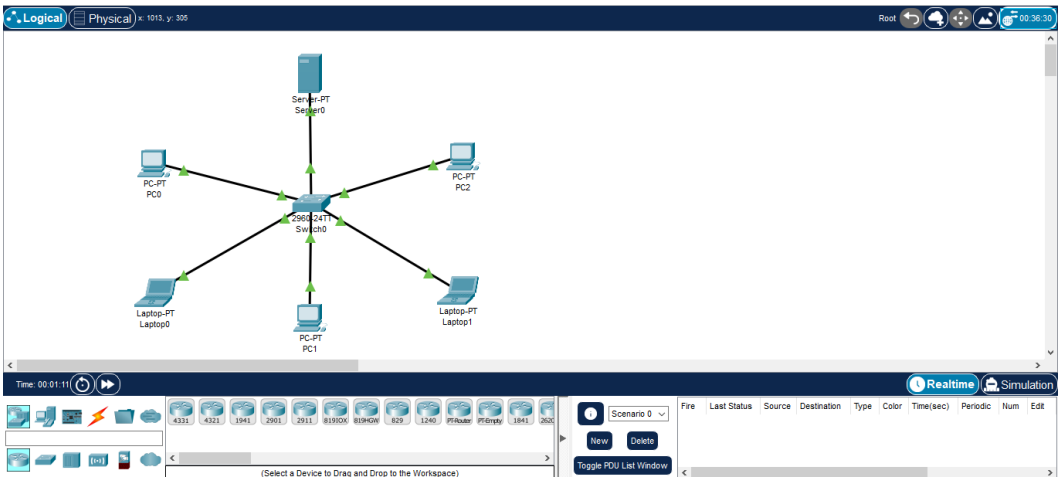
Lab#5: DHCP on Router

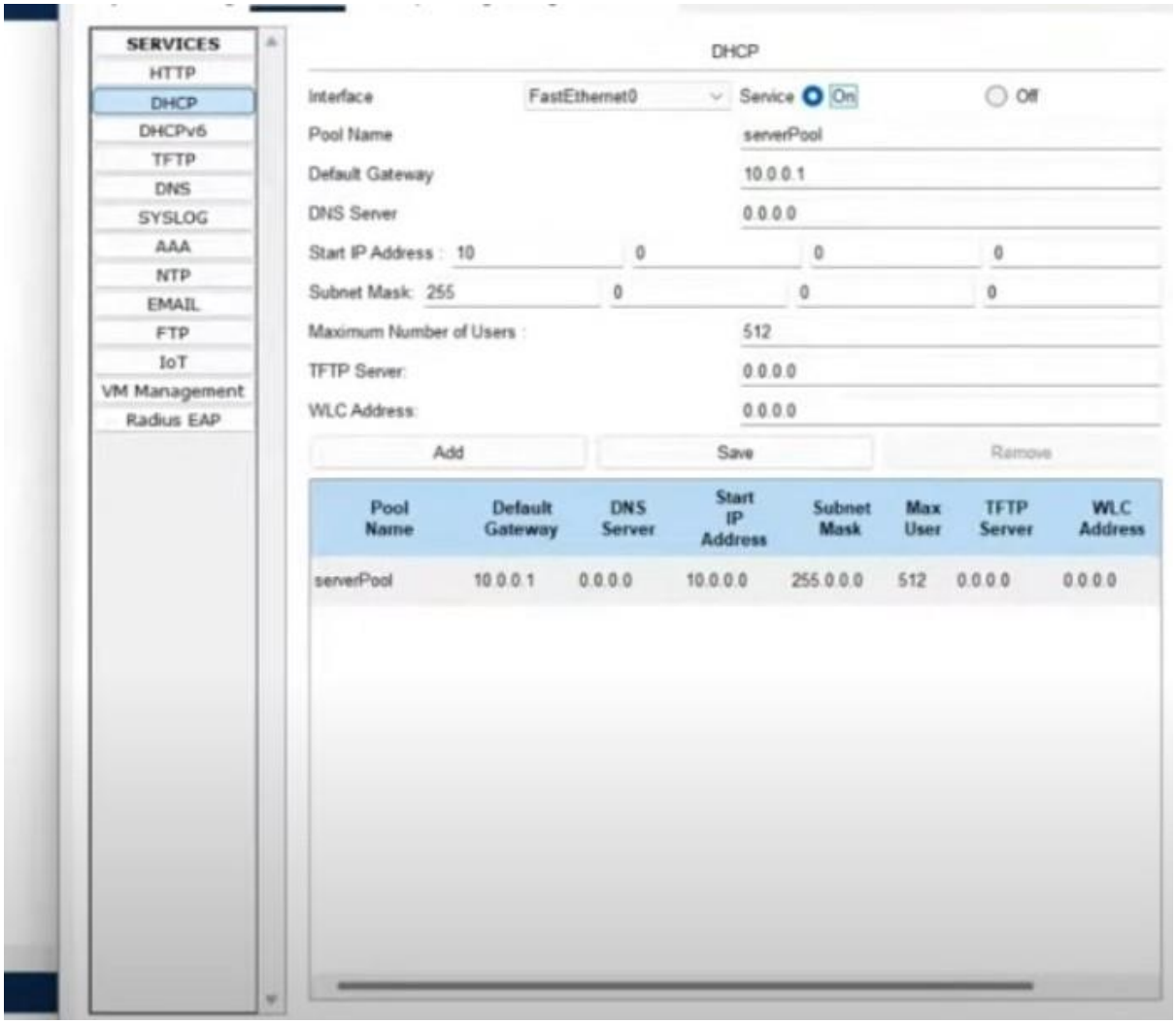


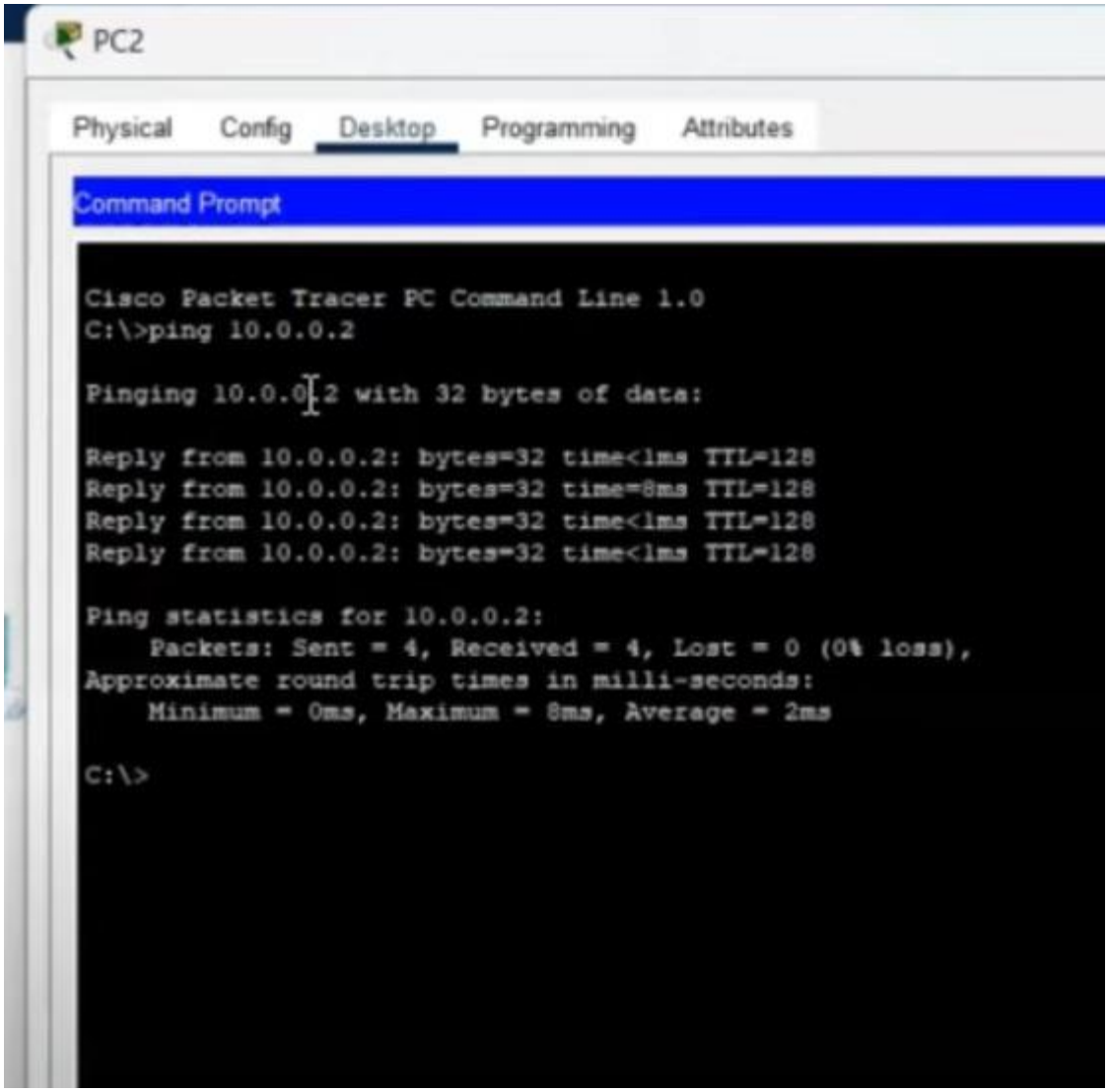



Router1
PC1
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#no sh
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed st
^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip dhcp pool lan-1
Router(dhcp-config)#net 20.0.0.0 255.0.0.0
Router(dhcp-config)#def
Router(dhcp-config)#default-router 20.0.0.1
Router(dhcp-config)#exit
Router(config)#int
Router(config)#int
Router(config)#interface gig
Router(config)#interface gigabitEthernet 0/1
Router(config-if)#ip add
Router(config-if)#ip address 20.0.0.1 255.0.0.0
Router(config-if)#no sh
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 st

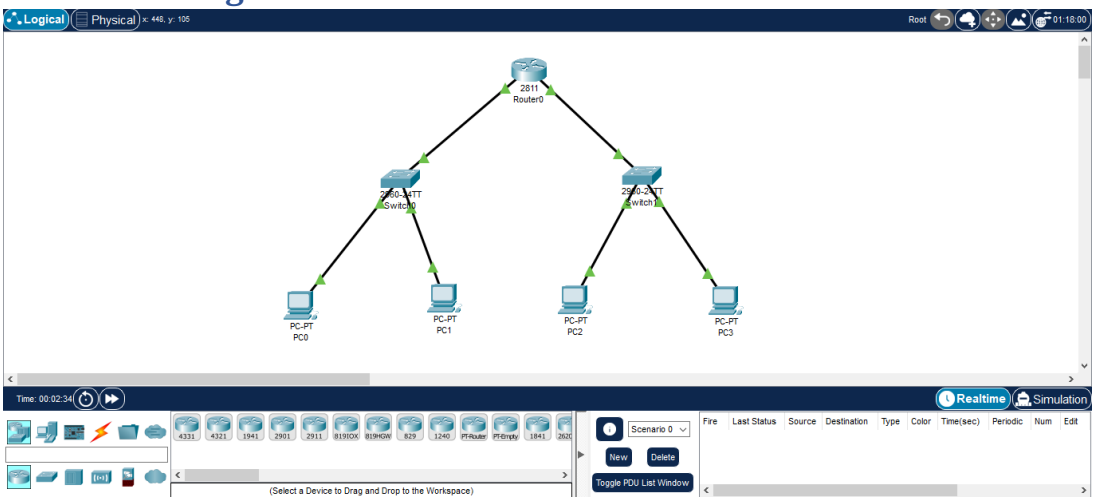
Lab#6: DHCP on Server

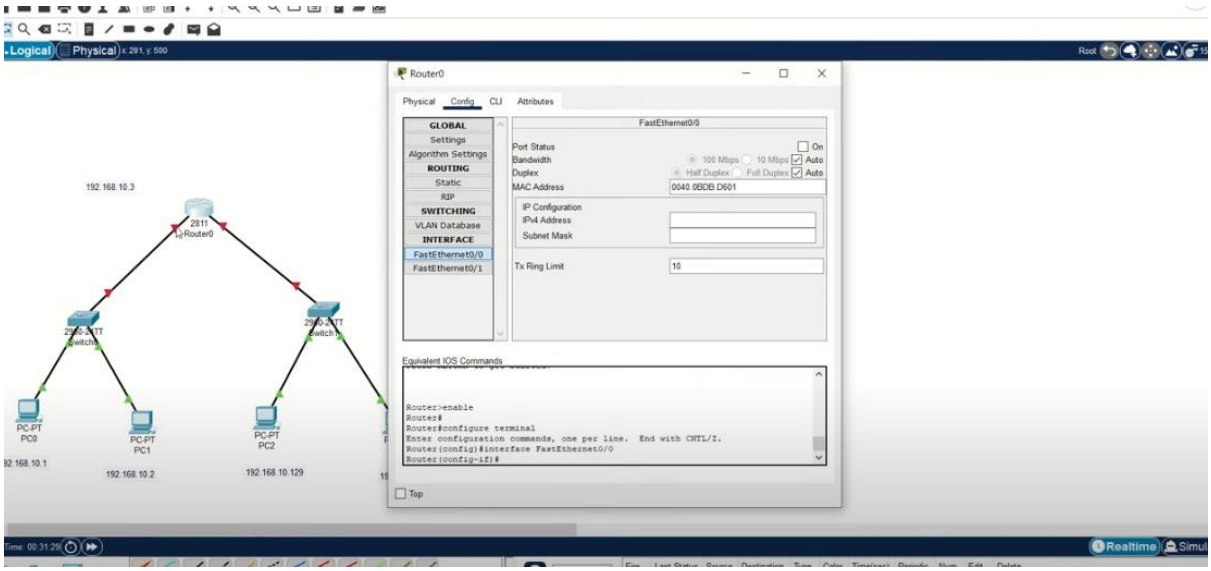


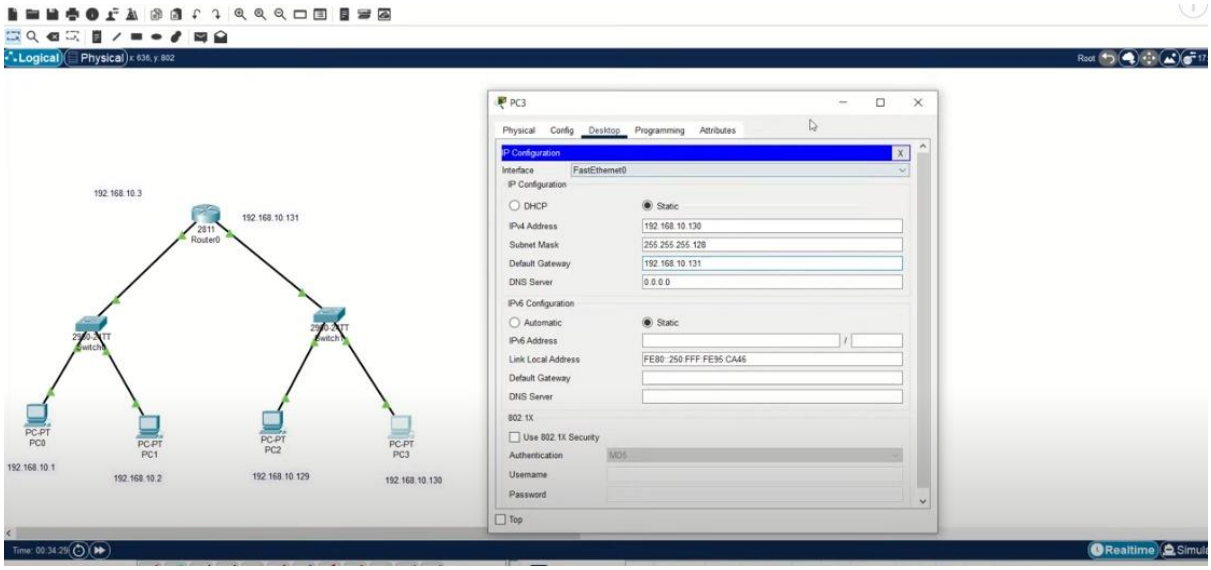


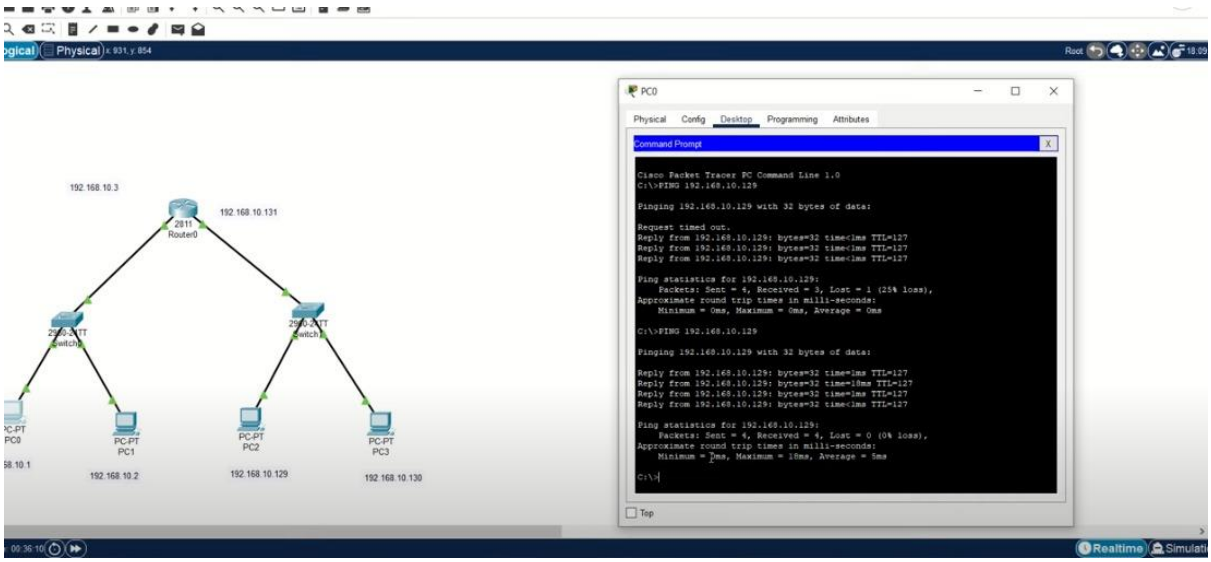


Lab#7: Subnetting

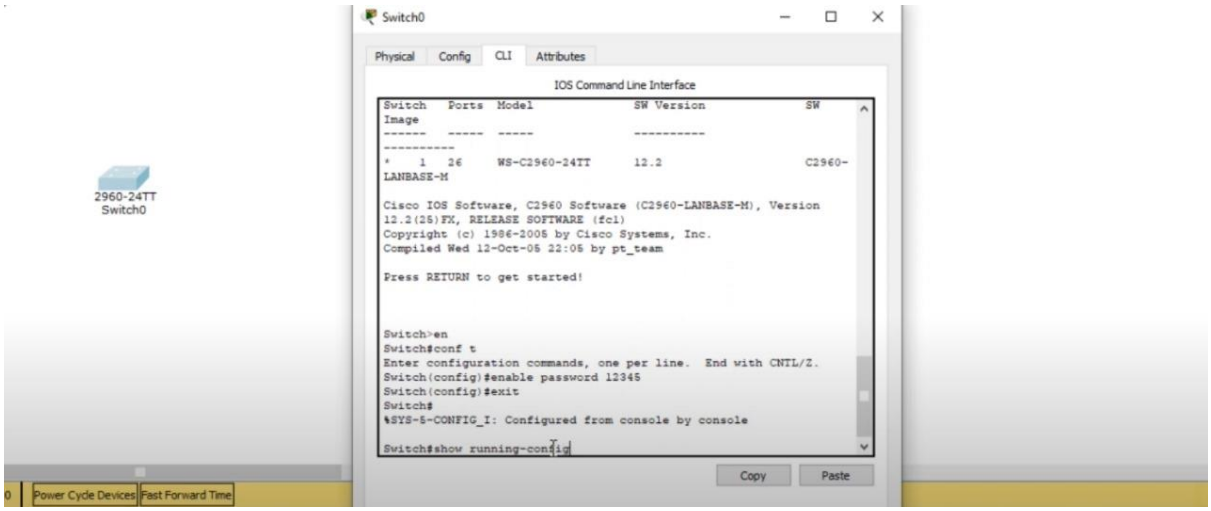


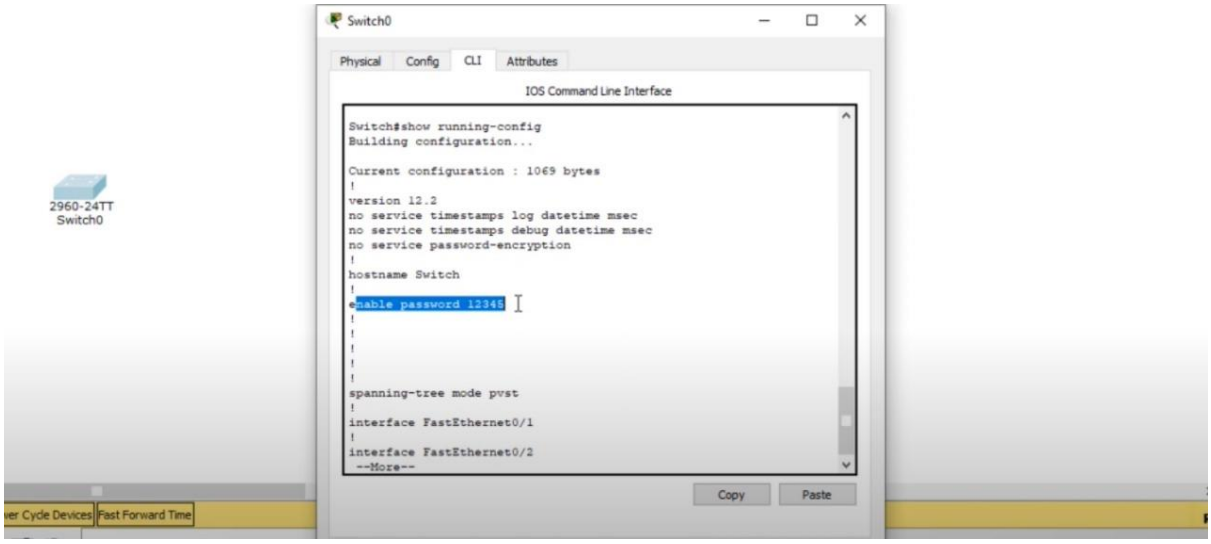

Router0
Physical Config CLI Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1
FastEthernet0/0
Port Status
Bandwidth
Duplex
MAC Address
0040.0BDB.D601
IP Configuration
IPv4 Address
Subnet Mask
Tx Ring Limit
10
Equivalent IOS Commands
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Top
192.168.10.3
2811
Router0
PC-PT
PC0
PC1
PC2
192.168.10.1
192.168.10.2
192.168.10.129

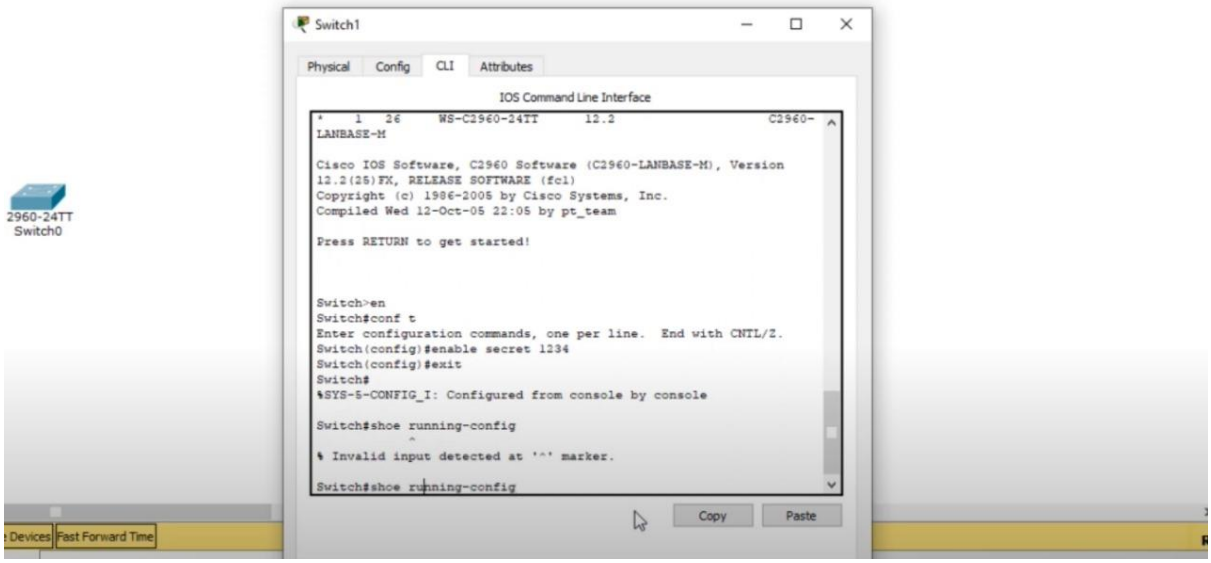

PC3
Physical Config Desktop Programming Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
192.168.10.130
Subnet Mask
255.255.255.128
Default Gateway
192.168.10.131
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::250:FFF:FE95:CA46
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top
192.168.10.3
192.168.10.131
2811
Router0
PC-PT
PC0
PC1
PC2
PC3
192.168.10.1
192.168.10.2
192.168.10.129
192.168.10.130


PC0
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>PING 192.168.10.129
Pinging 192.168.10.129 with 32 bytes of data:
Request timed out.
Reply from 192.168.10.129: bytes=32 time<1ms TTL=127
Reply from 192.168.10.129: bytes=32 time<1ms TTL=127
Reply from 192.168.10.129: bytes=32 time<1ms TTL=127
Ping statistics for 192.168.10.129:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>PING 192.168.10.129
Pinging 192.168.10.129 with 32 bytes of data:
Reply from 192.168.10.129: bytes=32 time=1ms TTL=127
Reply from 192.168.10.129: bytes=32 time=10ms TTL=127
Reply from 192.168.10.129: bytes=32 time=1ms TTL=127
Reply from 192.168.10.129: bytes=32 time<1ms TTL=127
Ping statistics for 192.168.10.129:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 10ms, Average = 5ms
C:\>
Top
192.168.10.3
192.168.10.131
2811
Router0
PC-PT
PC0
PC1
PC2
PC3
192.168.10.2
192.168.10.129
192.168.10.130

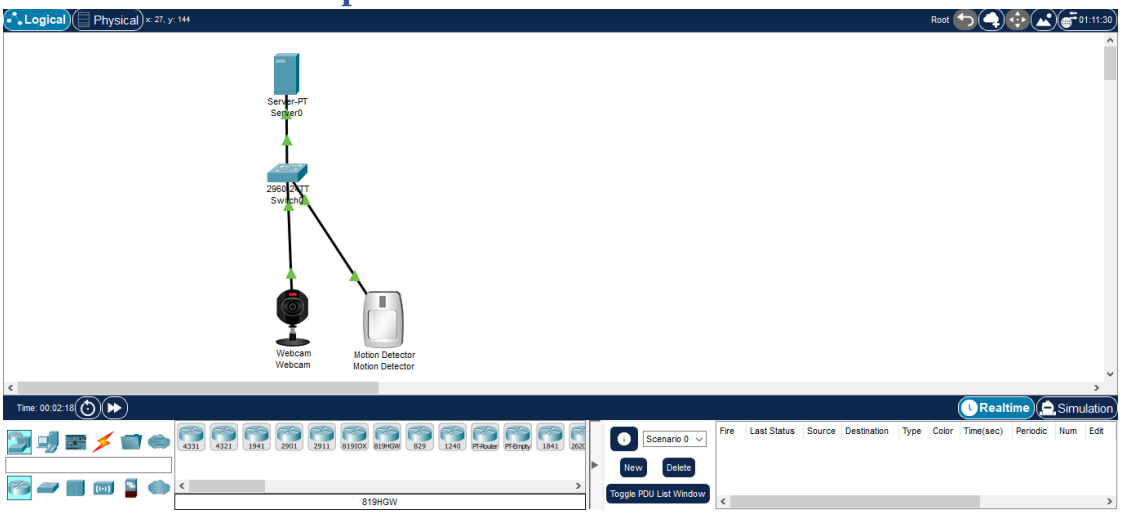
Lab#8: Setting Password

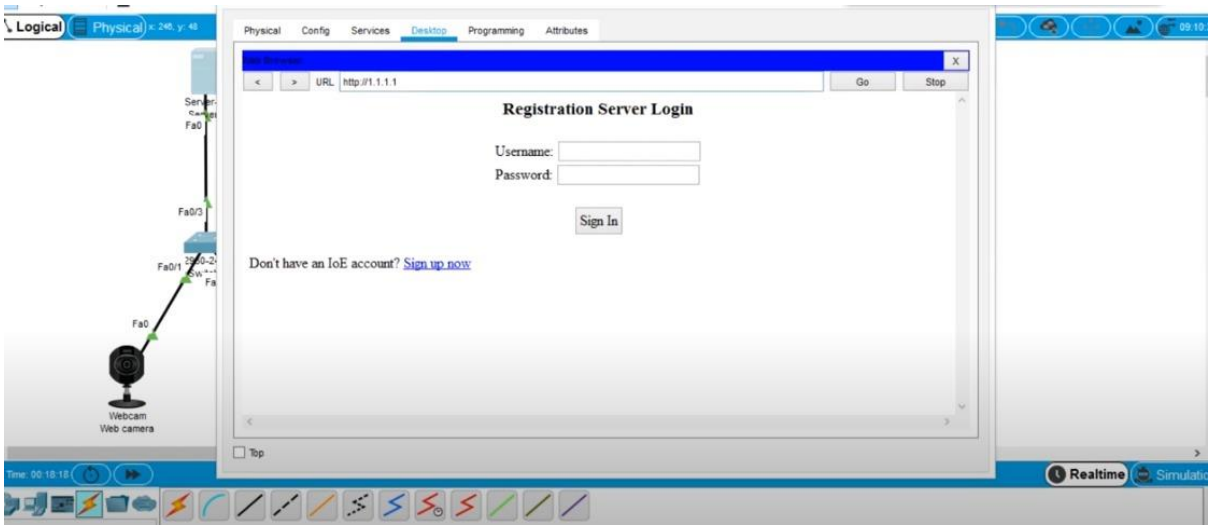


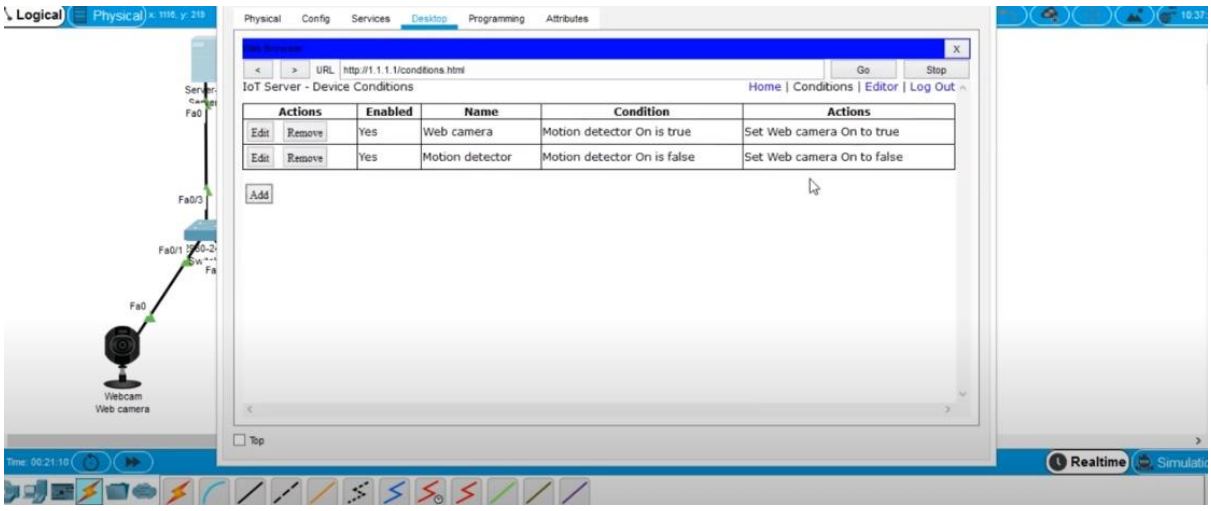



2960-24TT
Switch0
Switch1
Physical
Config
CLI
Attributes
IOS Command Line Interface
* 1 26 WS-C2960-24TT 12.2 C2960-
LANBASE-M
Cisco IOS Software, C2960 Software (C2960-LANBASE-M), Version
12.2(25)FX, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2005 by Cisco Systems, Inc.
Compiled Wed 12-Oct-05 22:05 by pt_team
Press RETURN to get started!
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#enable secret 1234
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
Switch#shoe running-config
^
% Invalid input detected at '^' marker.
Switch#shoe running-config
Copy
Paste
Devices
Fast Forward Time

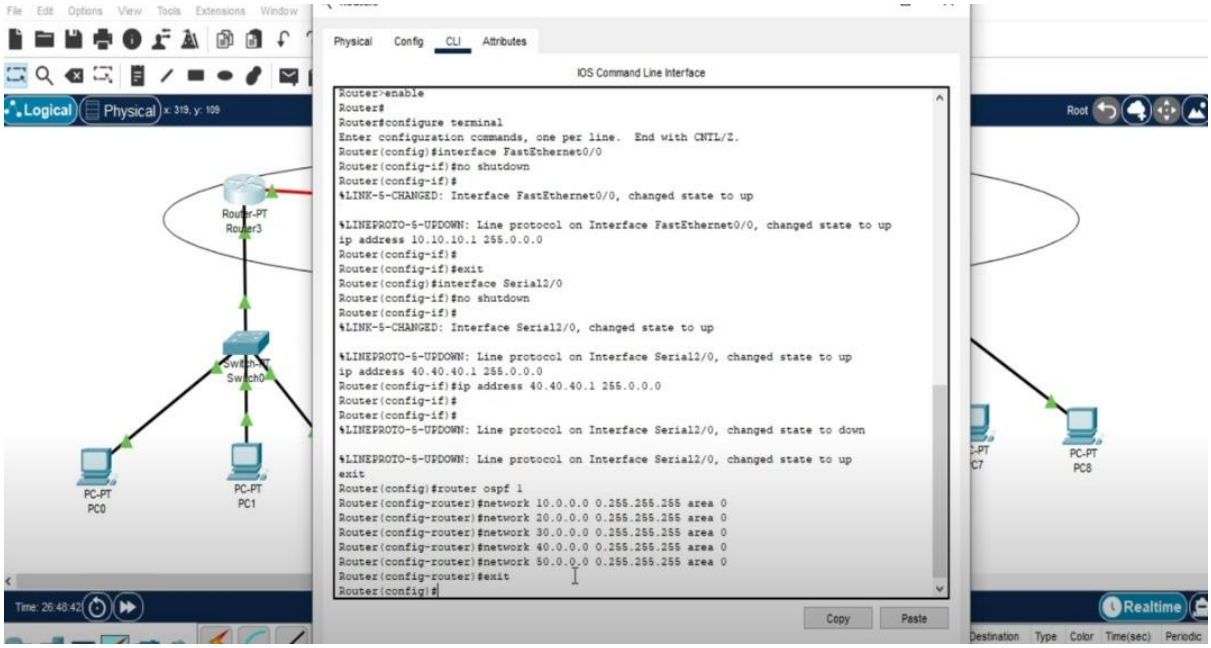
Lab#9: Smart Home Implementation

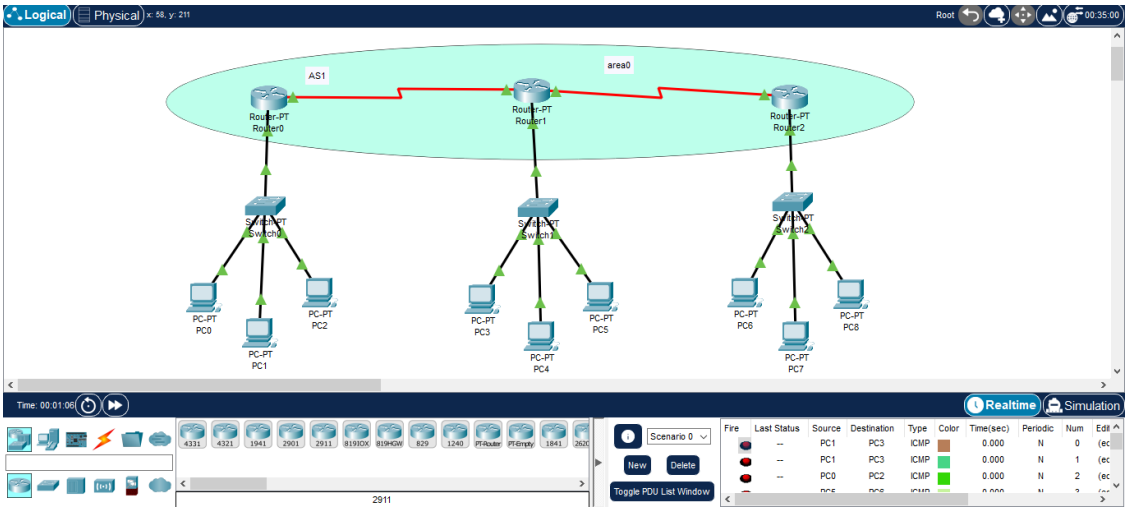






Lab#10: OSPF


Physical Config CLI Attributes
IOS Command Line Interface
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
ip address 10.10.10.1 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
ip address 40.40.40.1 255.0.0.0
Router(config-if)#ip address 40.40.40.1 255.0.0.0
Router(config-if)#
Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
exit
Router(config)#router ospf 1
Router(config-router)#network 10.0.0.0 0.255.255.255 area 0
Router(config-router)#network 20.0.0.0 0.255.255.255 area 0
Router(config-router)#network 30.0.0.0 0.255.255.255 area 0
Router(config-router)#network 40.0.0.0 0.255.255.255 area 0
Router(config-router)#network 50.0.0.0 0.255.255.255 area 0
Router(config-router)#exit
Router(config)#
Copy
Paste
Router-PT Router3
Switch-PT Switch0
PC-PT PC0
PC-PT PC1
PC-PT PC8
Realtime


Logical Physical
Root
AS1
area0
Router-PT Router0
Router-PT Router1
Router-PT Router2
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
PC-PT PC5
PC-PT PC6
PC-PT PC7
PC-PT PC8
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
2911