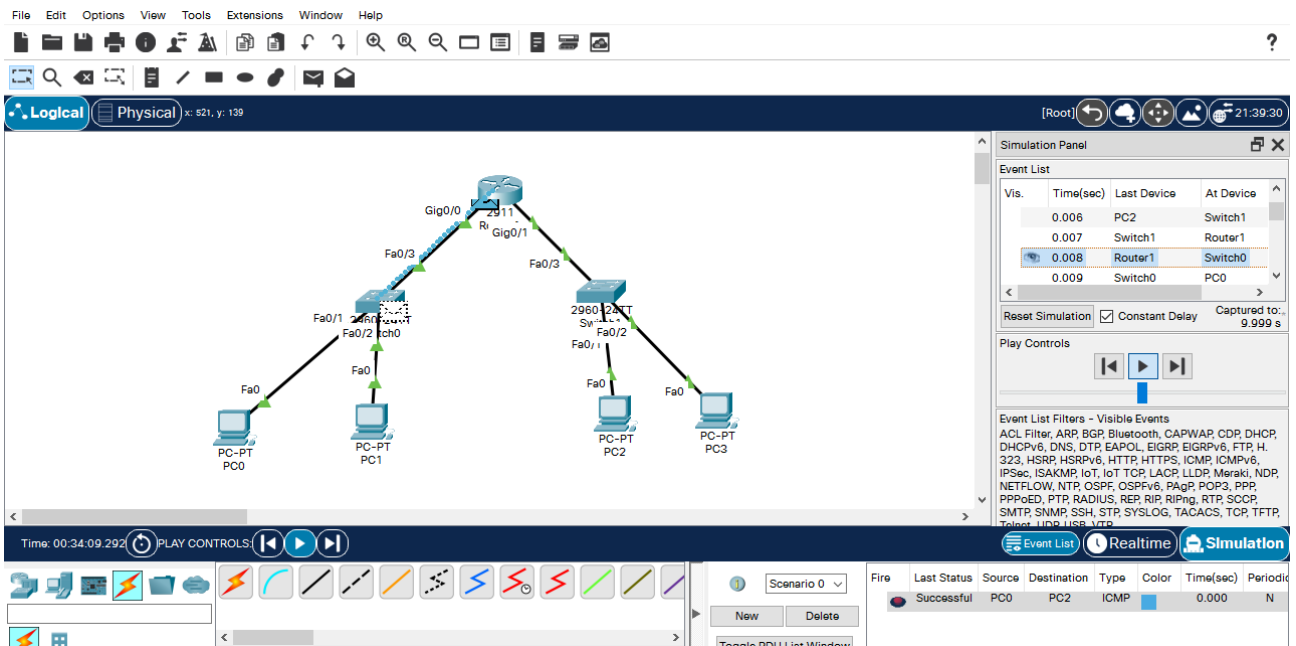


Experiment 4 Basic LAN Setup via Packet Tracer.

Step 1:



Step 2:

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address: 10.10.10.1

Subnet Mask: 255.0.0.0

Default Gateway: 10.10.10.3

DNS Server: 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address: /

Link Local Address: FE80::2E0:B0FF:FE63:9D4

Default Gateway:

DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

Step 3:

The screenshot shows the 'IP Configuration' window for the 'FastEthernet0' interface. The 'Static' radio button is selected under 'IP Configuration'. The fields are filled with: IPv4 Address: 192.168.1.1, Subnet Mask: 255.255.255.0, Default Gateway: 192.168.1.3, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is also selected. The fields are: IPv6 Address (empty), Link Local Address: FE80::202:4AFF:FEE4:85B2, Default Gateway (empty), and DNS Server (empty). The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to 'MD5', and 'Username' and 'Password' fields empty.

| Interface | FastEthernet0 |
|---|--------------------------|
| IP Configuration | |
| <input type="radio"/> DHCP <input checked="" type="radio"/> Static | |
| IPv4 Address | 192.168.1.1 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.1.3 |
| DNS Server | 0.0.0.0 |
| IPv6 Configuration | |
| <input type="radio"/> Automatic <input checked="" type="radio"/> Static | |
| IPv6 Address | / |
| Link Local Address | FE80::202:4AFF:FEE4:85B2 |
| Default Gateway | |
| DNS Server | |
| 802.1X | |
| <input type="checkbox"/> Use 802.1X Security | |
| Authentication | MD5 |
| Username | |
| Password | |

Step 4:

The screenshot shows the 'GigabitEthernet0/0' configuration window. The 'Port Status' is 'On'. The 'Bandwidth' is '100 Mbps' and 'Duplex' is 'Full Duplex', both with 'Auto' checked. The 'MAC Address' is '0050.0FEB.0901'. The 'IP Configuration' section has 'IPv4 Address' as '10.10.10.3' and 'Subnet Mask' as '255.0.0.0'. The 'Tx Ring Limit' is '10'.

| GLOBAL | Config | CLI | Attributes |
|--------------------|--------|-----|------------|
| Settings | | | |
| Algorithm Settings | | | |
| ROUTING | | | |
| Static | | | |
| RIP | | | |
| SWITCHING | | | |
| VLAN Database | | | |
| INTERFACE | | | |
| GigabitEthernet0/0 | | | |
| GigabitEthernet0/1 | | | |
| GigabitEthernet0/2 | | | |

| GigabitEthernet0/0 | |
|-------------------------|--|
| Port Status | <input checked="" type="checkbox"/> On |
| Bandwidth | <input type="radio"/> 1000 Mbps <input checked="" type="radio"/> 100 Mbps <input type="radio"/> 10 Mbps <input checked="" type="checkbox"/> Auto |
| Duplex | <input type="radio"/> Half Duplex <input checked="" type="radio"/> Full Duplex <input checked="" type="checkbox"/> Auto |
| MAC Address | 0050.0FEB.0901 |
| IP Configuration | |
| IPv4 Address | 10.10.10.3 |
| Subnet Mask | 255.0.0.0 |
| Tx Ring Limit | 10 |

Equivalent IOS Commands

```
$LINEPROTO-S=UP/DOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/1
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
```

Step 5:

```
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=127
Reply from 192.168.1.1: bytes=32 time<1ms TTL=127
Reply from 192.168.1.1: bytes=32 time<1ms TTL=127
Reply from 192.168.1.1: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```