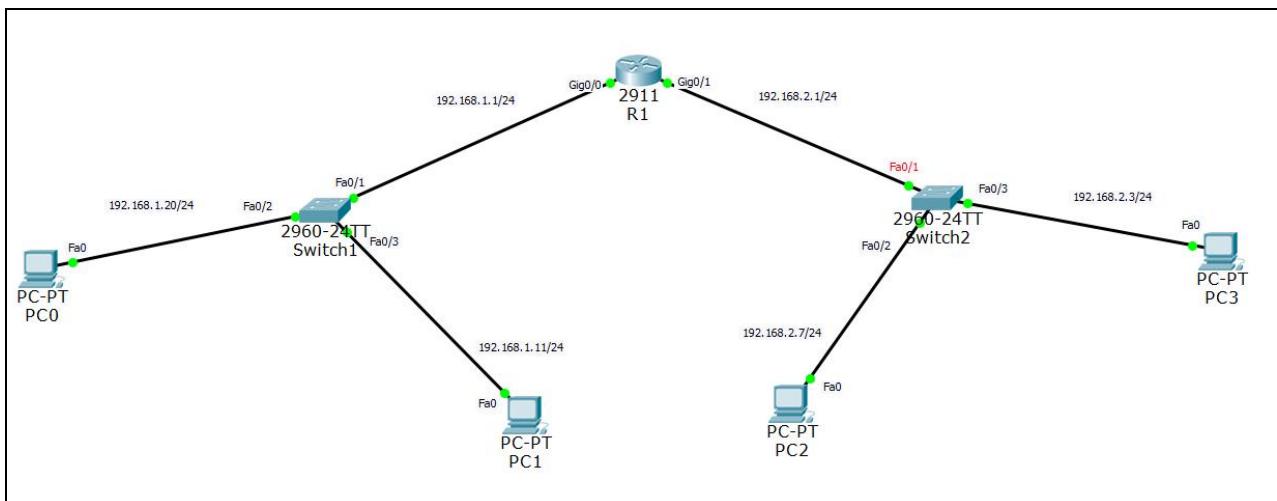
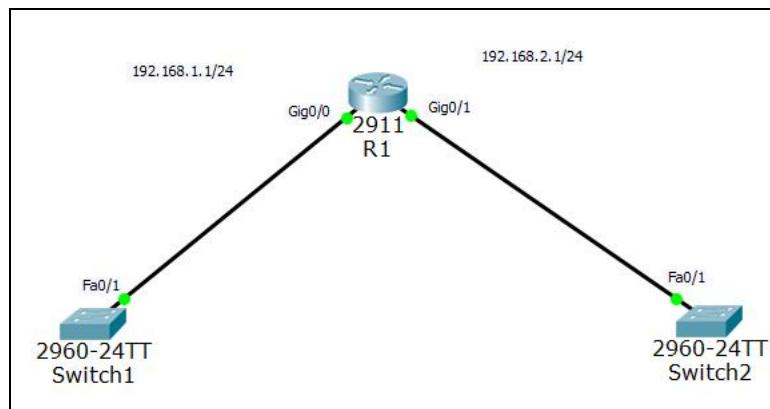


Cisco Packet Tracer - Subnetting dual-network setup



(subnetting two networks with the 2911 Router and 2960 Switches)

- Enable router to connect two different networks.
- Configure it to global configuration.
- Name the router (hereR1) ; enable username and password.
- Interface giga-ethernet Connection with two switches [g0/0 & g0/1] (the switch creates a private "lane" just for them. This keeps the network fast and efficient).
- In each giga-eth. Connection need to assign ip address and save it.
- After verifying router interface (using "show ip route" command).
- Assign each PCs with IP Address, Gateway and ping with one another.
- Turn on simulation to check connectivity.

R1

Physical Config CLI

IOS Command Line Interface

```
Router>enable
Router#conf t
Enter configuration commands, one per line. End with
CNTL/Z.
Router(config)#hostname R1
R1(config)#enable password pass@123
R1(config)#username nit password pass@123
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#enable
R1#exit
```

```
%password
Password:
R1#config t
Enter configuration commands, one per line. End with
CNTL/Z.
R1(config)#int g0/0/0
%Invalid interface type and number
R1(config)#int g0/0
R1(config-if)#ip address 192.168.1.1 255.255.255.0
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed
state to up

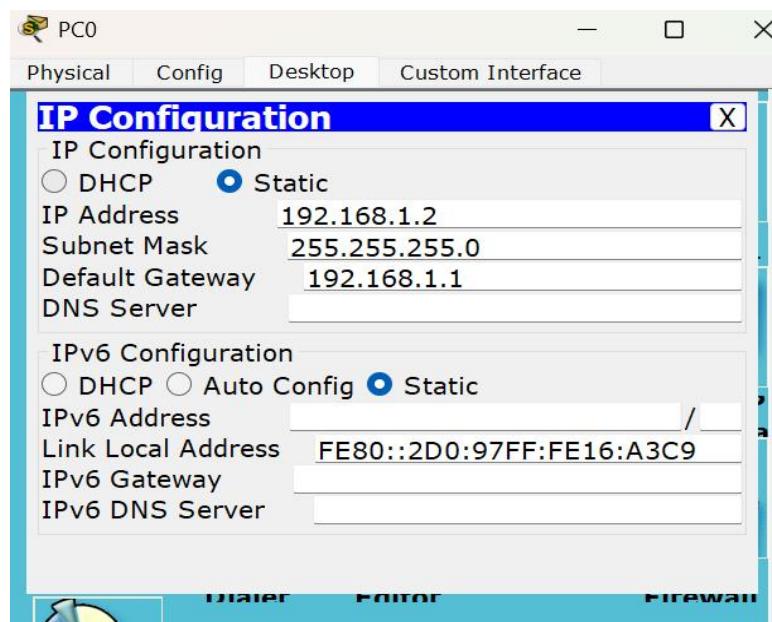
%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet0/0, changed state to up
exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Enter configuration commands, one per line. End with
CNTL/Z.
R1(config)#int g0/1
R1(config-if)#ip address 192.168.2.1 255.255.255.0
R1(config-if)#no shut

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed
state to up

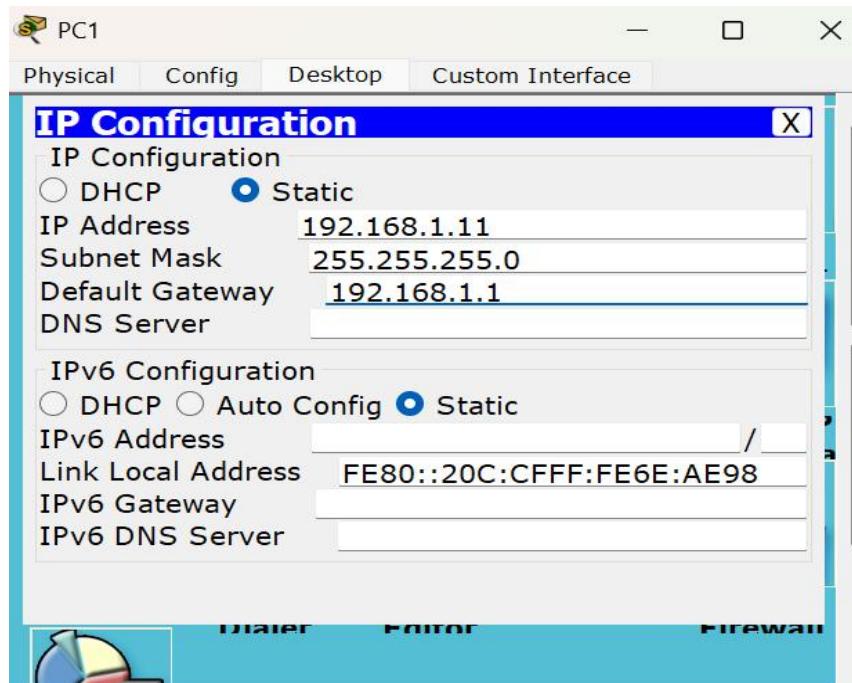
%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet0/1, changed state to up
exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#write
Building configuration...
[OK]
R1#
```



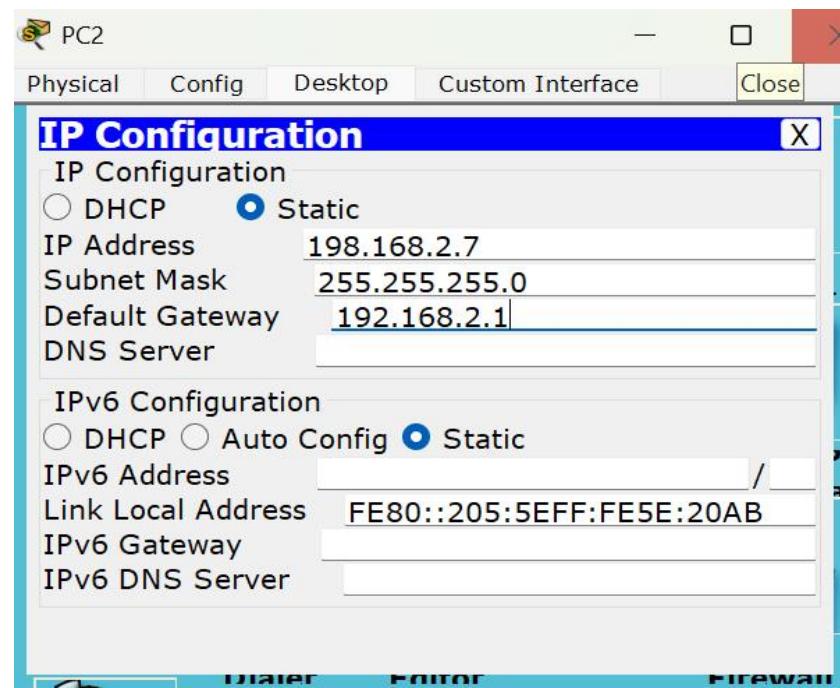
The window title is "PC0". The tab bar includes "Physical", "Config", "Desktop", and "Custom Interface". The main panel is titled "Command Prompt". The terminal output shows two ping sessions. The first session pings 192.168.2.3 and the second session pings 192.168.2.7. Both sessions show 100% packet loss.

```
Ping statistics for 192.168.2.3:  
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 0ms, Maximum = 2ms, Average = 1ms  
  
PC>ping 192.168.2.7  
  
Pinging 192.168.2.7 with 32 bytes of data:  
  
Reply from 192.168.2.7: bytes=32 time=1ms TTL=127  
Reply from 192.168.2.7: bytes=32 time=0ms TTL=127  
Reply from 192.168.2.7: bytes=32 time=0ms TTL=127  
Reply from 192.168.2.7: bytes=32 time=0ms TTL=127  
  
Ping statistics for 192.168.2.7:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 0ms, Maximum = 1ms, Average = 0ms  
  
PC>
```



The window title is "PC1". The tab bar includes "Physical", "Config", "Desktop", and "Custom Interface". The main panel is titled "Command Prompt". The terminal output shows two ping operations. The first ping to 192.168.1.20 resulted in 75% loss. The second ping to 192.168.1.20 resulted in 0% loss.

```
Ping statistics for 192.168.1.20:  
Packets: Sent = 4, Received = 1, Lost = 3 (75% loss),  
Approximate round trip times in milli-seconds:  
    Minimum = 4ms, Maximum = 4ms, Average = 4ms  
  
PC>ping 192.168.1.20  
  
Pinging 192.168.1.20 with 32 bytes of data:  
  
Reply from 192.168.1.20: bytes=32 time=0ms TTL=128  
Reply from 192.168.1.20: bytes=32 time=1ms TTL=128  
Reply from 192.168.1.20: bytes=32 time=1ms TTL=128  
Reply from 192.168.1.20: bytes=32 time=0ms TTL=128  
  
Ping statistics for 192.168.1.20:  
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
    Minimum = 0ms, Maximum = 1ms, Average = 0ms  
  
PC>
```



Command Prompt

```
PC>ping 192.168.1.20
Pinging 192.168.1.20 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.20: bytes=32 time=0ms TTL=127
Reply from 192.168.1.20: bytes=32 time=0ms TTL=127
Reply from 192.168.1.20: bytes=32 time=1ms TTL=127

Ping statistics for 192.168.1.20:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>ping 192.168.1.11
Pinging 192.168.1.11 with 32 bytes of data:
```

