WUKE ZHANG

1-ASIR

Actividad 2 - Simulación topologías de red

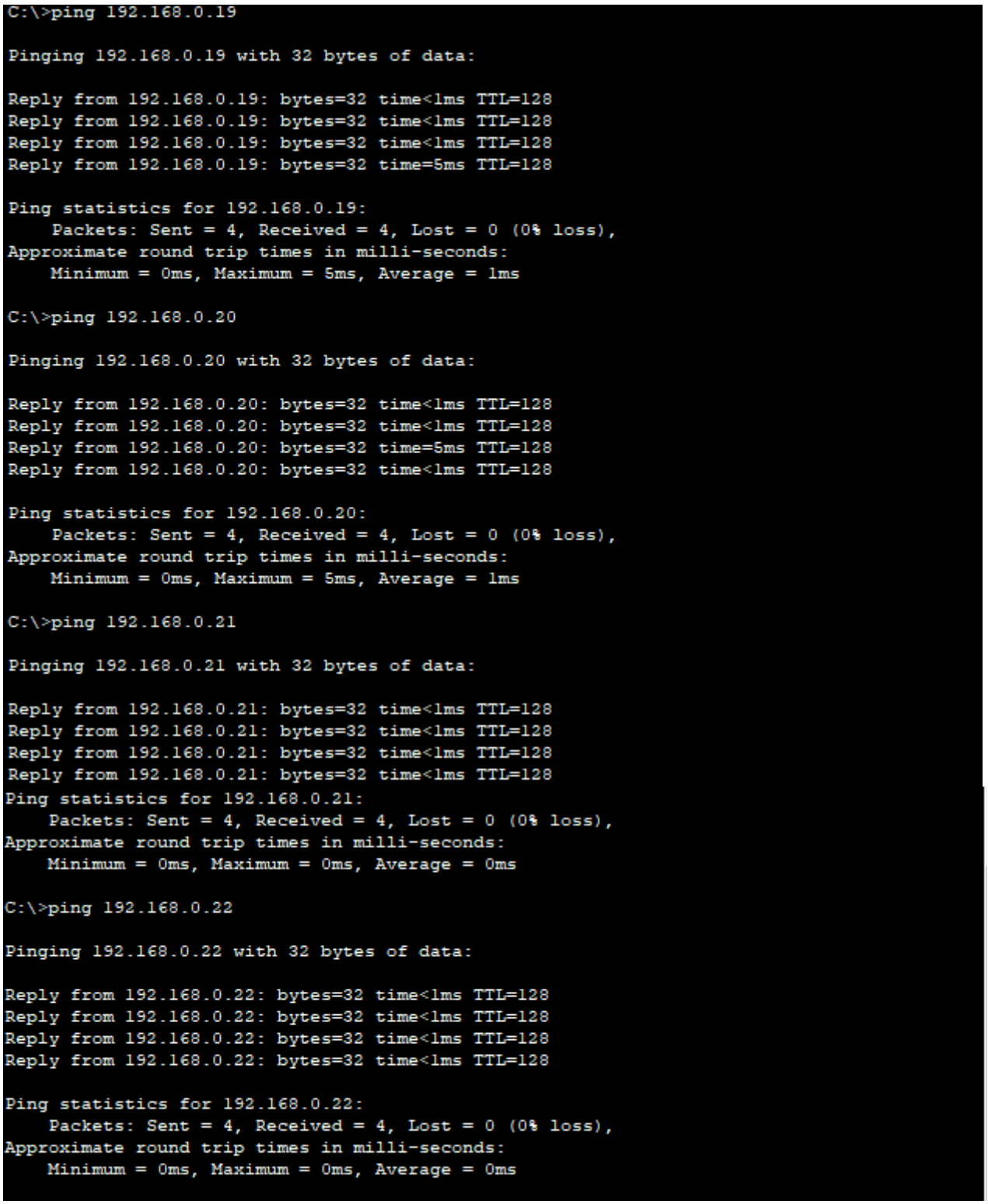
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.2

Pinging 192.168.0.2 with 32 bytes of data:

Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time<1ms TTL=128
Reply from 192.168.0.3: bytes=32 time=5ms TTL=128
Reply from 192.168.0.3: bytes=32 time<1ms TTL=128
Reply from 192.168.0.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 1ms

C:\>ping 192.168.0.4

Pinging 192.168.0.4 with 32 bytes of data:

Reply from 192.168.0.4: bytes=32 time<1ms TTL=128
Reply from 192.168.0.4: bytes=32 time<1ms TTL=128
Reply from 192.168.0.4: bytes=32 time<1ms TTL=128
Reply from 192.168.0.4: bytes=32 time=6ms TTL=128

Ping statistics for 192.168.0.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 6ms, Average = 1ms

C:\>ping 192.168.0.5

Pinging 192.168.0.5 with 32 bytes of data:

Reply from 192.168.0.5: bytes=32 time<1ms TTL=128
Reply from 192.168.0.5: bytes=32 time<1ms TTL=128
Reply from 192.168.0.5: bytes=32 time<1ms TTL=128
Reply from 192.168.0.5: bytes=32 time<1ms TTL=128
```

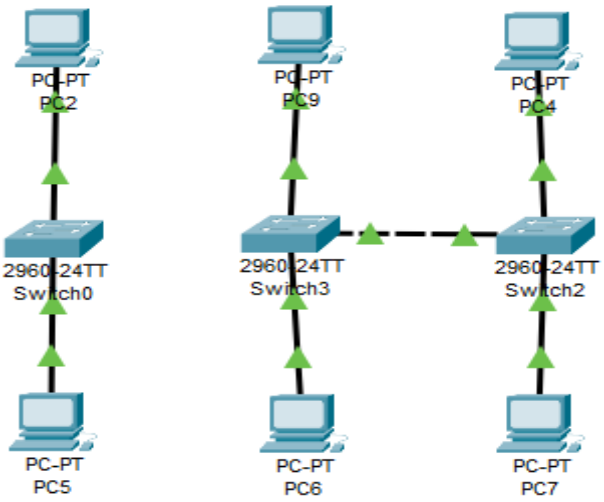
```
Ping statistics for 192.168.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.0.6

Pinging 192.168.0.6 with 32 bytes of data:

Reply from 192.168.0.6: bytes=32 time<1ms TTL=128
Reply from 192.168.0.6: bytes=32 time<1ms TTL=128
Reply from 192.168.0.6: bytes=32 time<1ms TTL=128
Reply from 192.168.0.6: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

```
C:\>ping 192.168.0.8

Pinging 192.168.0.8 with 32 bytes of data:

Reply from 192.168.0.8: bytes=32 time=3ms TTL=128
Reply from 192.168.0.8: bytes=32 time<1ms TTL=128
Reply from 192.168.0.8: bytes=32 time<1ms TTL=128
Reply from 192.168.0.8: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 0ms

C:\>ping 192.168.0.9

Pinging 192.168.0.9 with 32 bytes of data:

Reply from 192.168.0.9: bytes=32 time<1ms TTL=128
Reply from 192.168.0.9: bytes=32 time<1ms TTL=128
Reply from 192.168.0.9: bytes=32 time<1ms TTL=128
Reply from 192.168.0.9: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.9:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.0.10

Pinging 192.168.0.10 with 32 bytes of data:

Reply from 192.168.0.10: bytes=32 time<1ms TTL=128
Reply from 192.168.0.10: bytes=32 time=6ms TTL=128
Reply from 192.168.0.10: bytes=32 time<1ms TTL=128
Reply from 192.168.0.10: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 6ms, Average = 1ms
```

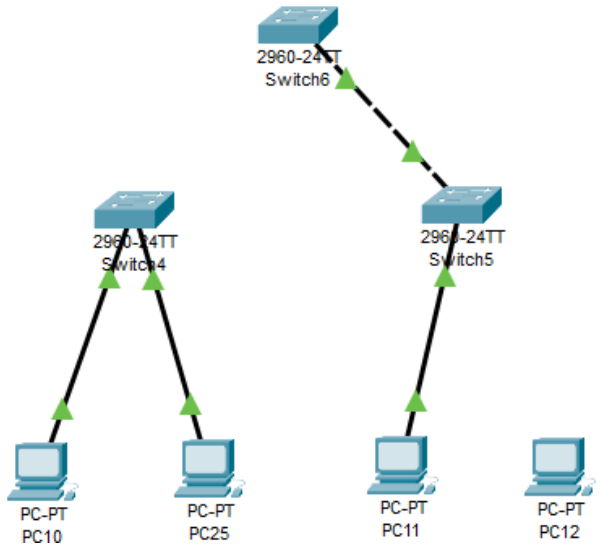
```
C:\>ping 192.168.0.12

Pinging 192.168.0.12 with 32 bytes of data:

Reply from 192.168.0.12: bytes=32 time<1ms TTL=128
Reply from 192.168.0.12: bytes=32 time<1ms TTL=128
Reply from 192.168.0.12: bytes=32 time<1ms TTL=128
Reply from 192.168.0.12: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.0.13

Pinging 192.168.0.13 with 32 bytes of data:

Reply from 192.168.0.13: bytes=32 time<1ms TTL=128
Reply from 192.168.0.13: bytes=32 time<1ms TTL=128
Reply from 192.168.0.13: bytes=32 time=5ms TTL=128
Reply from 192.168.0.13: bytes=32 time=6ms TTL=128

Ping statistics for 192.168.0.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 6ms, Average = 2ms

C:\>ping 192.168.0.14

Pinging 192.168.0.14 with 32 bytes of data:

Reply from 192.168.0.14: bytes=32 time<1ms TTL=128
Reply from 192.168.0.14: bytes=32 time<1ms TTL=128
Reply from 192.168.0.14: bytes=32 time<1ms TTL=128
Reply from 192.168.0.14: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.14:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.0.15

Pinging 192.168.0.15 with 32 bytes of data:

Reply from 192.168.0.15: bytes=32 time<1ms TTL=128
Reply from 192.168.0.15: bytes=32 time<1ms TTL=128
Reply from 192.168.0.15: bytes=32 time<1ms TTL=128
Reply from 192.168.0.15: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.15:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.0.16

Pinging 192.168.0.16 with 32 bytes of data:

Reply from 192.168.0.16: bytes=32 time<1ms TTL=128
Reply from 192.168.0.16: bytes=32 time=6ms TTL=128
Reply from 192.168.0.16: bytes=32 time<1ms TTL=128
Reply from 192.168.0.16: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.16:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 6ms, Average = 1ms
```



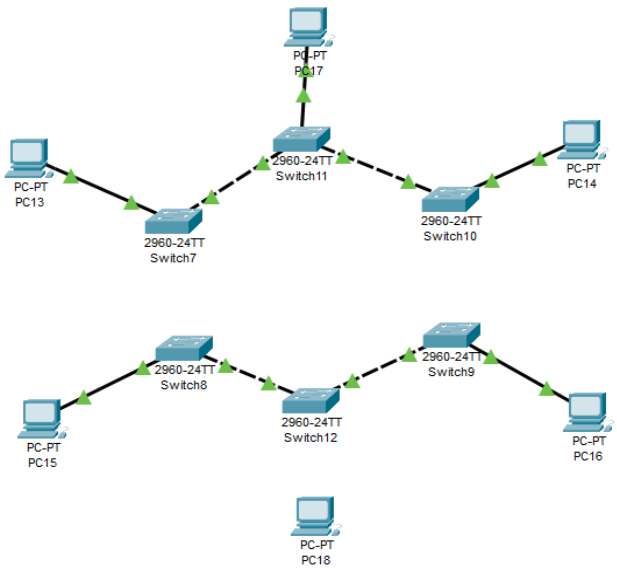
Pings: Pues hice un ping de una pc principal de la topolgía con todas las otras de las topologías y así con todas las otras topologías.



En el packet tracer si quitas una conexión en la topología bus, la conexión sigue porque la aplicación está anticuado porque en la vida real si quitamos una conexión en la topología bus, se quitán todos.



En esta topología de tipo árbol es una variación de la tipología bus, la falla de un nodo no implica la interrupción en las comunicaciones pero si cortamos la conexión directamente del pc si que se corta obviamente. Pero del switch principal con los otros no pasa nada.

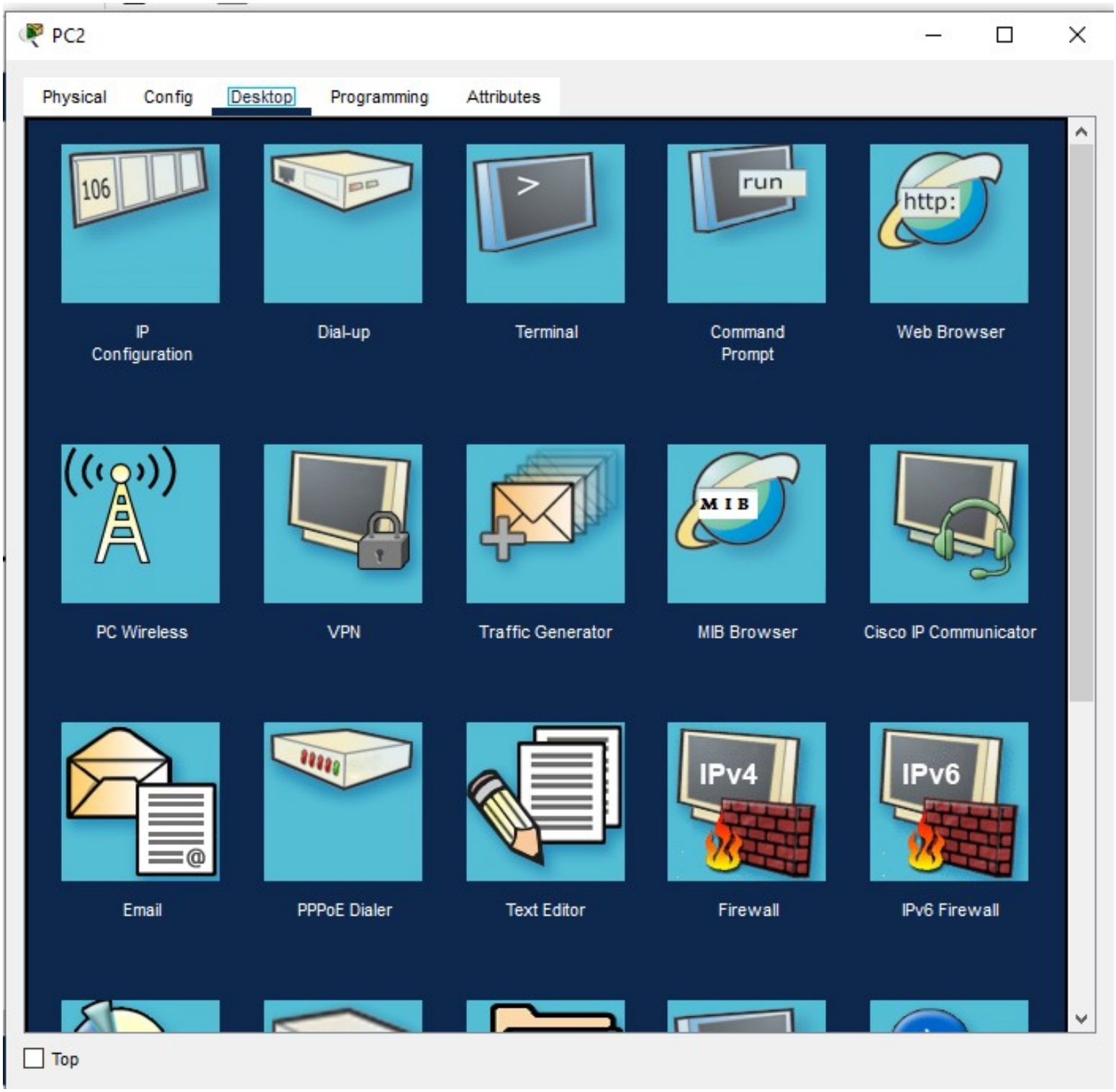


En esta tipología de anillo, si los corto pues ya no sería de tipología de anillo porque las conexiones de esta funcionan de forma que el switch manda información de forma de anillo pero ahora el switch le pregumta a todos los que sigan conectado con él.
Y si cortas la conexión con un pc pues no funciona porque hay un switch solo para cada pc.

En esta tipología en estrella si cortas la conexión con cualquier pc se corta la conexión con el switch solo del nodo determinado pero los otros se mantienen, sin embargo si lo cortas todo pues se pierden todos.

Creación de las topologías: Añadi pc´s y switchs hasta crear la topología que me pedían y luego añadi conexiones entre ellas.

IPS: Fui a los pcs 1 por uno en ip configuration y les añadi un ip diferente a cada uno.



PC19

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface	FastEthernet0
IP Configuration	
DHCP	○
Static	●
IPv4 Address	192.168.0.17
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
Automatic	○
Static	●
IPv6 Address	/
Link Local Address	FE80::240:BFF:FE04:99D0
Default Gateway	
DNS Server	
802.1X	
Use 802.1X Security	☐
Authentication	MD5
Username	
Password	

PC20

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface	FastEthernet0
IP Configuration	
DHCP	○
Static	●
IPv4 Address	192.168.0.18
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
Automatic	○
Static	●
IPv6 Address	/
Link Local Address	FE80::230:F2FF:FE66:EA10
Default Gateway	
DNS Server	
802.1X	
Use 802.1X Security	☐
Authentication	MD5
Username	
Password	

PC21

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface	FastEthernet0
IP Configuration	
DHCP	○
Static	●
IPv4 Address	192.168.0.21
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
Automatic	○
Static	●
IPv6 Address	/
Link Local Address	FE80::204:9AFF:FE05:D0A1
Default Gateway	
DNS Server	
802.1X	
Use 802.1X Security	☐
Authentication	MD5
Username	
Password	

PC24

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface	FastEthernet0
IP Configuration	
DHCP	○
Static	●
IPv4 Address	192.168.0.22
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
Automatic	○
Static	●
IPv6 Address	/
Link Local Address	FE80::201:42FF:FEC4:DA2E
Default Gateway	
DNS Server	
802.1X	
Use 802.1X Security	☐
Authentication	MD5
Username	
Password	

PC23

Physical | Config | Desktop | Programming | Attributes

IP Configuration

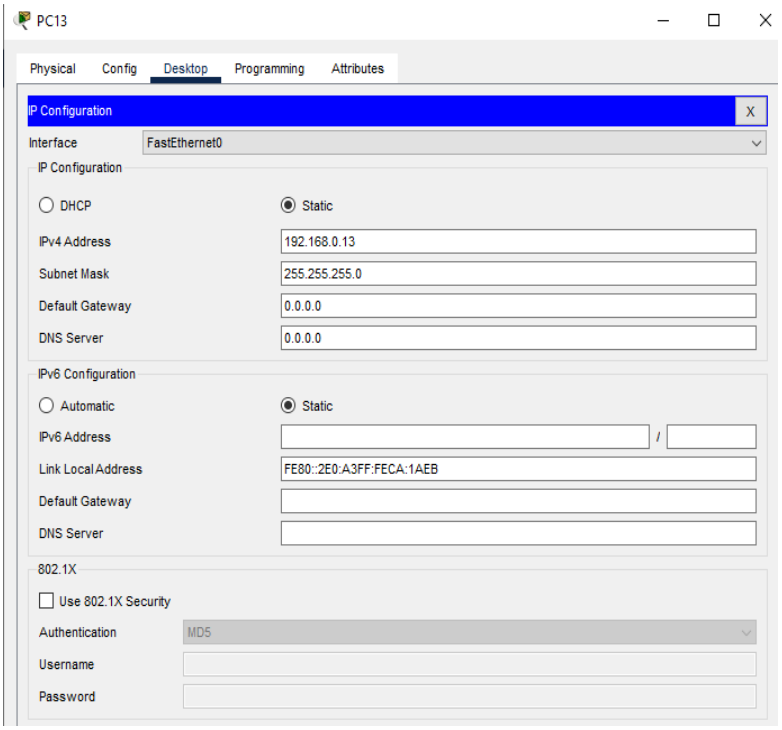
Interface	FastEthernet0
IP Configuration	
DHCP	○
Static	●
IPv4 Address	192.168.0.20
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
Automatic	○
Static	●
IPv6 Address	/
Link Local Address	FE80::2D0:BCFF:FEB7:DC54
Default Gateway	
DNS Server	
802.1X	
Use 802.1X Security	☐
Authentication	MD5
Username	
Password	

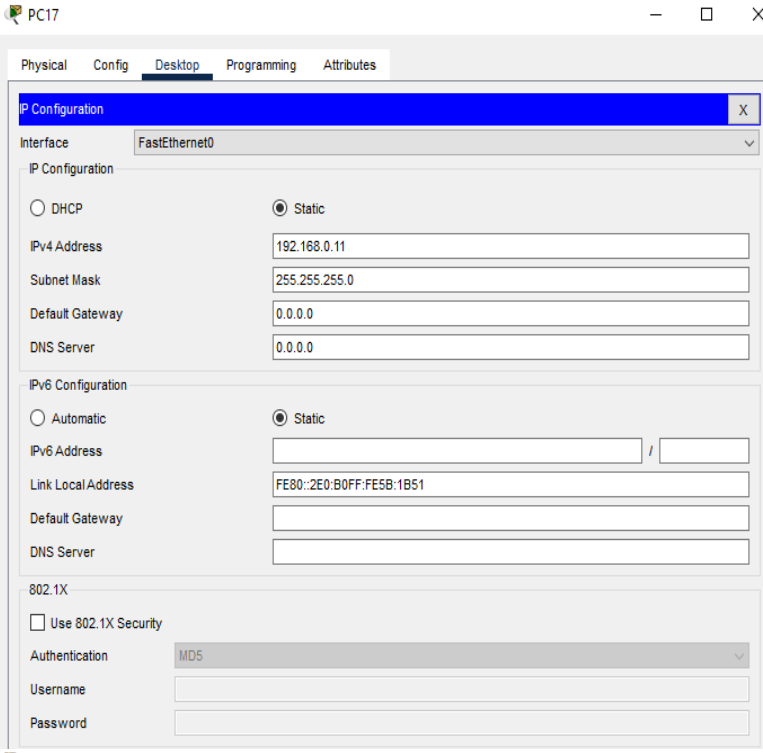
PC22

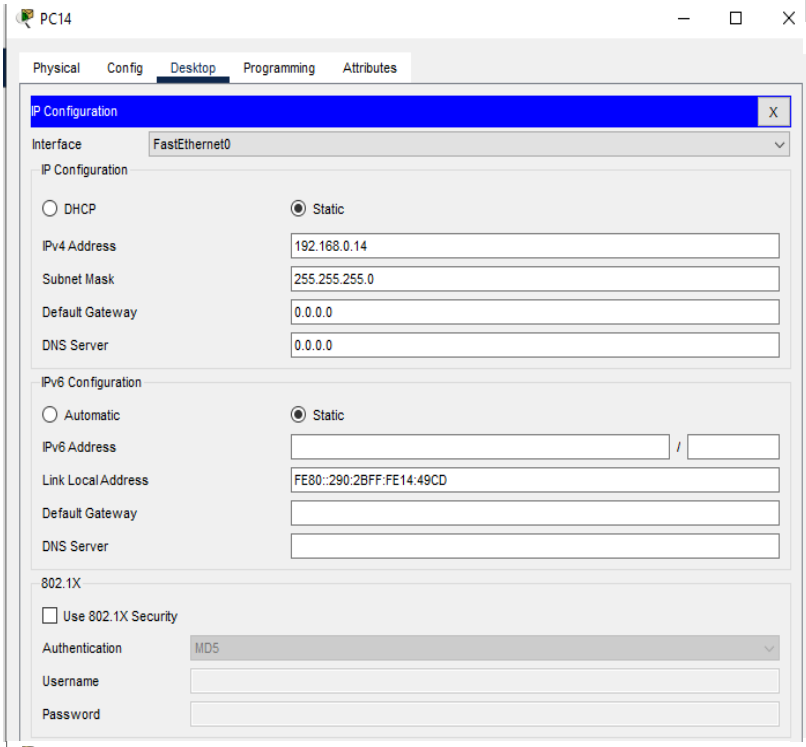
Physical | Config | Desktop | Programming | Attributes

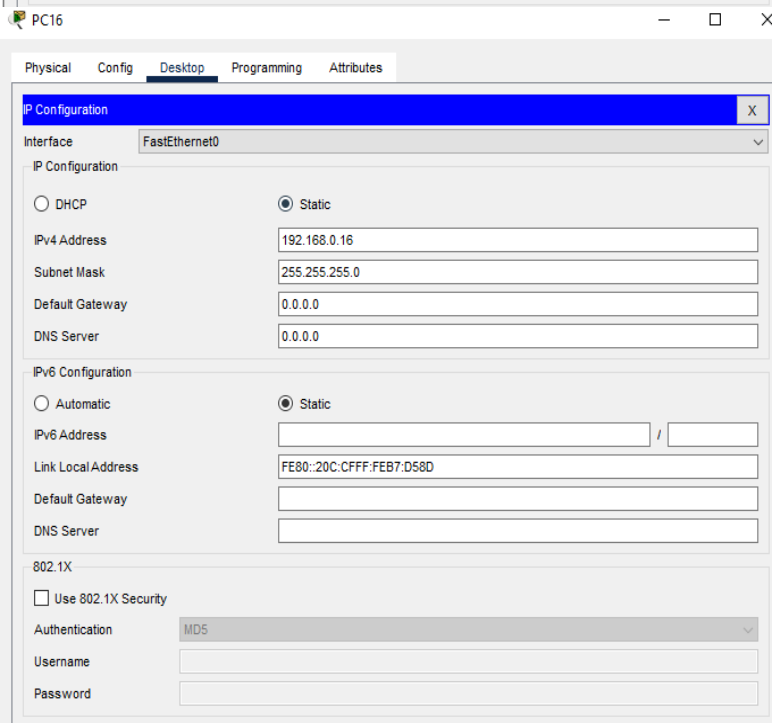
IP Configuration

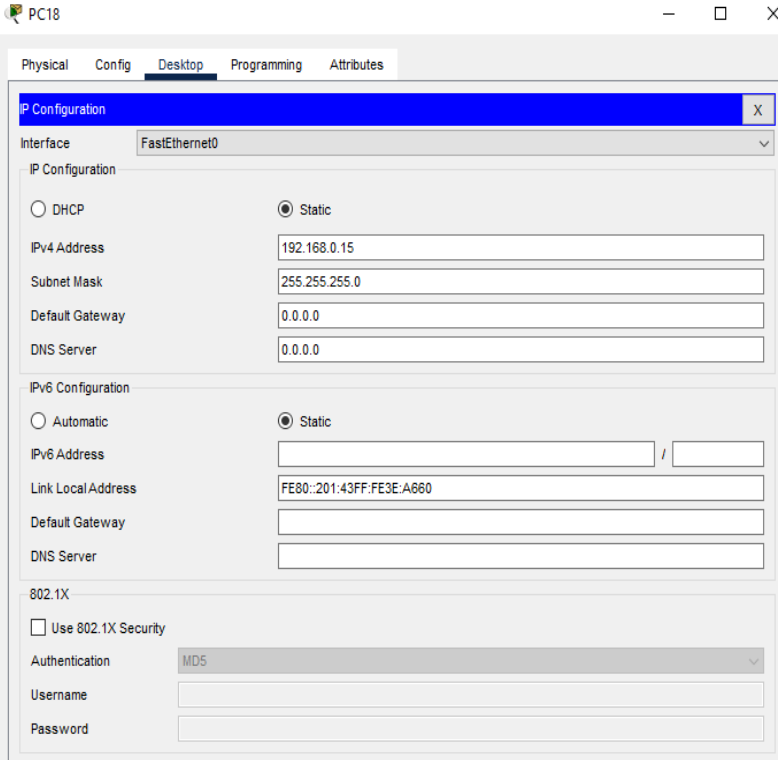
Interface	FastEthernet0
IP Configuration	
DHCP	○
Static	●
IPv4 Address	192.168.0.19
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
Automatic	○
Static	●
IPv6 Address	/
Link Local Address	FE80::201:97FF:FE8D:A1CE
Default Gateway	
DNS Server	
802.1X	
Use 802.1X Security	☐
Authentication	MD5
Username	
Password	

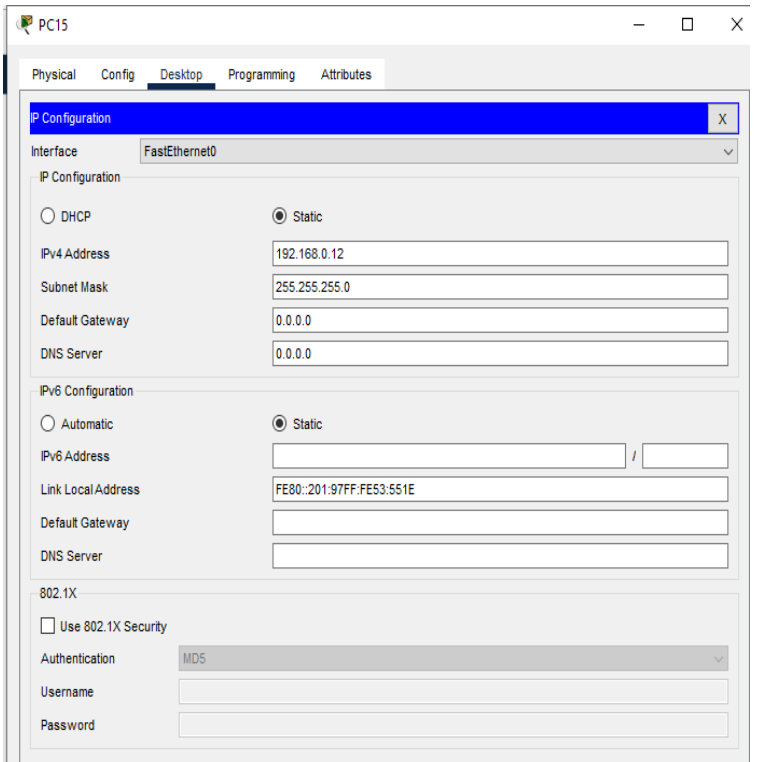

PC13
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.13
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::2E0:A3FF:FECA:1AEB
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC17
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.11
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::2E0:B0FF:FE5B:1B51
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC14
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.14
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::290:2BFF:FE14:49CD
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC16
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.16
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::20C:CFFF:FEB7:D58D
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC18
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.15
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::201:43FF:FE3E:A660
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC15
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.12
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::201:97FF:FE53:551E
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password

PC10

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

DHCP Static

IPv4 Address 192.168.0.7

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

Automatic Static

IPv6 Address /

Link Local Address FE80::2D0:BCFF:FE78:633C

Default Gateway

DNS Server

802.1X

Use 802.1X Security

Authentication MD5

Username

Password

PC25

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

DHCP Static

IPv4 Address 192.168.0.8

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

Automatic Static

IPv6 Address /

Link Local Address FE80::290:21FF:FE50:E66A

Default Gateway

DNS Server

802.1X

Use 802.1X Security

Authentication MD5

Username

Password

PC11

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

DHCP Static

IPv4 Address 192.168.0.9

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

Automatic Static

IPv6 Address /

Link Local Address FE80::260:47FF:FE5C:CA5E

Default Gateway

DNS Server

802.1X

Use 802.1X Security

Authentication MD5

Username

Password

PC12

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

DHCP Static

IPv4 Address 192.168.0.10

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

Automatic Static

IPv6 Address /

Link Local Address FE80::201:C7FF:FE9C:C902

Default Gateway

DNS Server

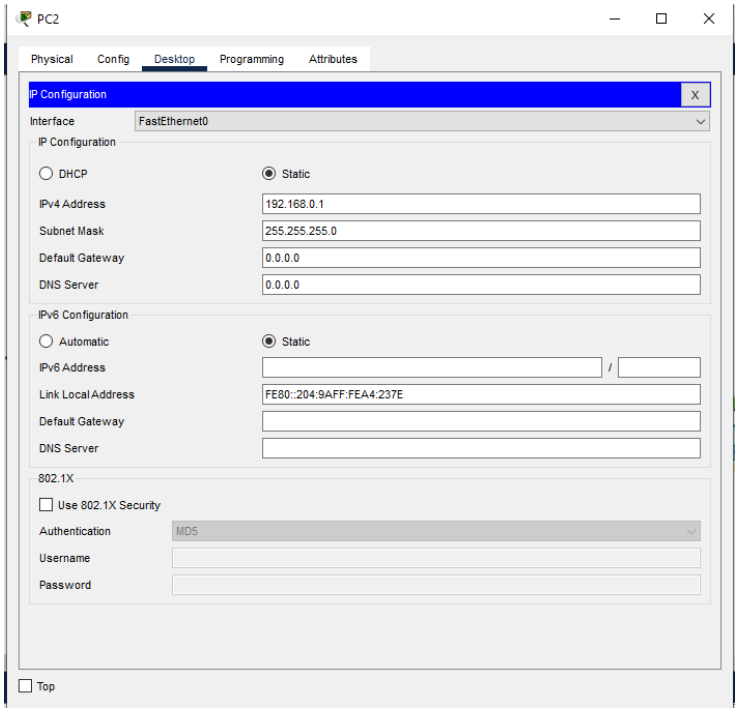
802.1X

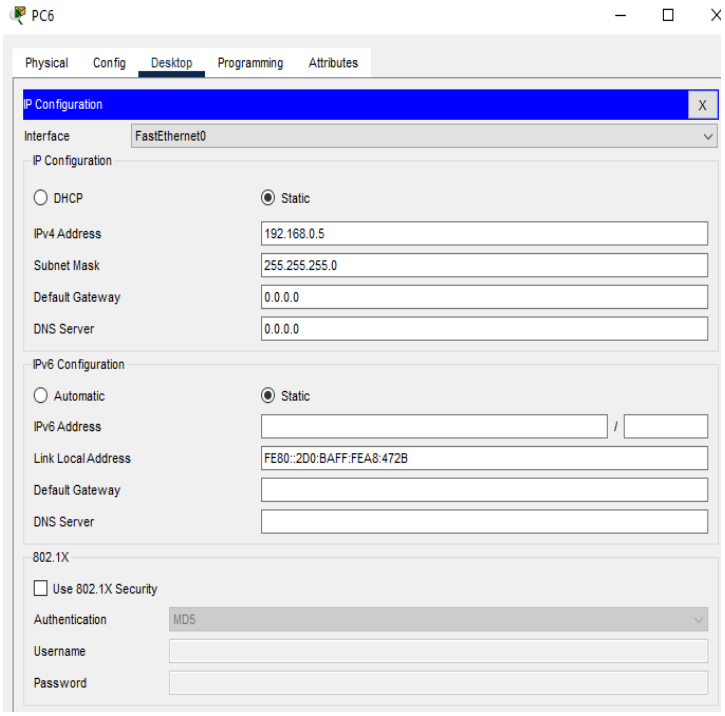
Use 802.1X Security

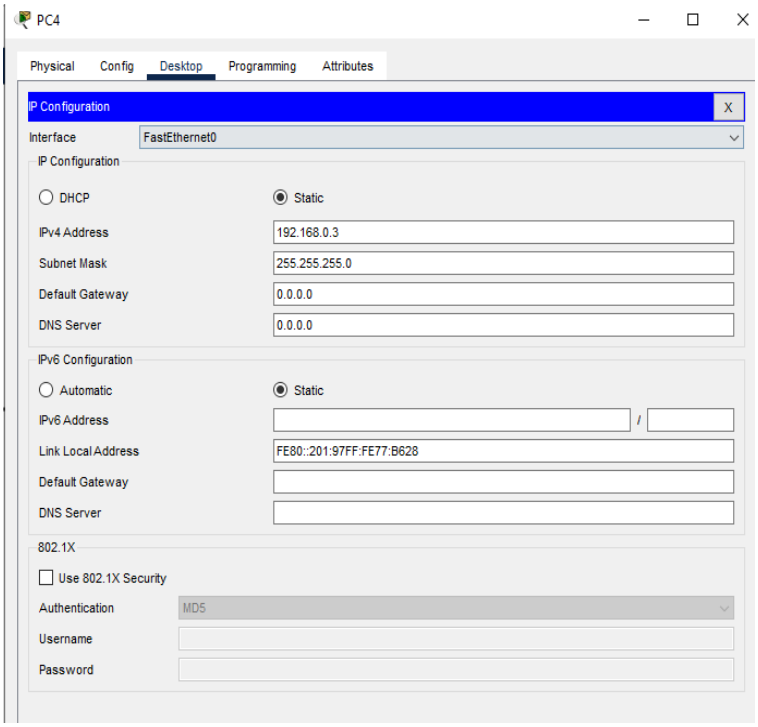
Authentication MD5

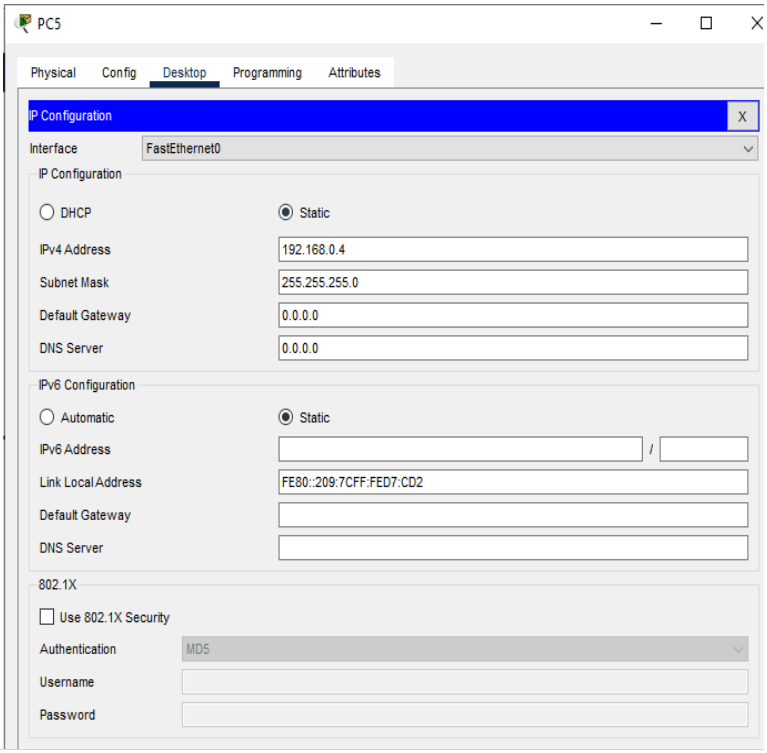
Username

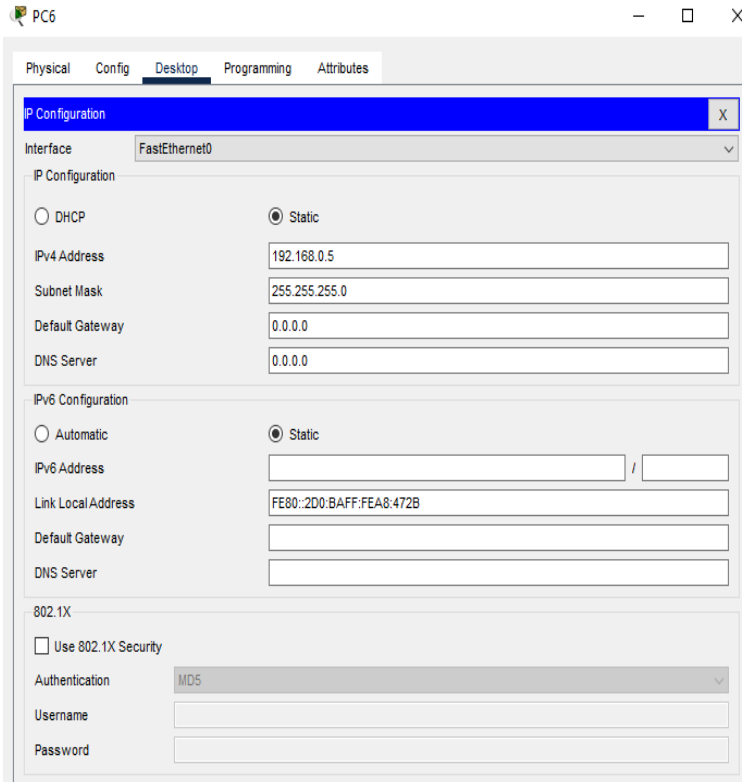
Password

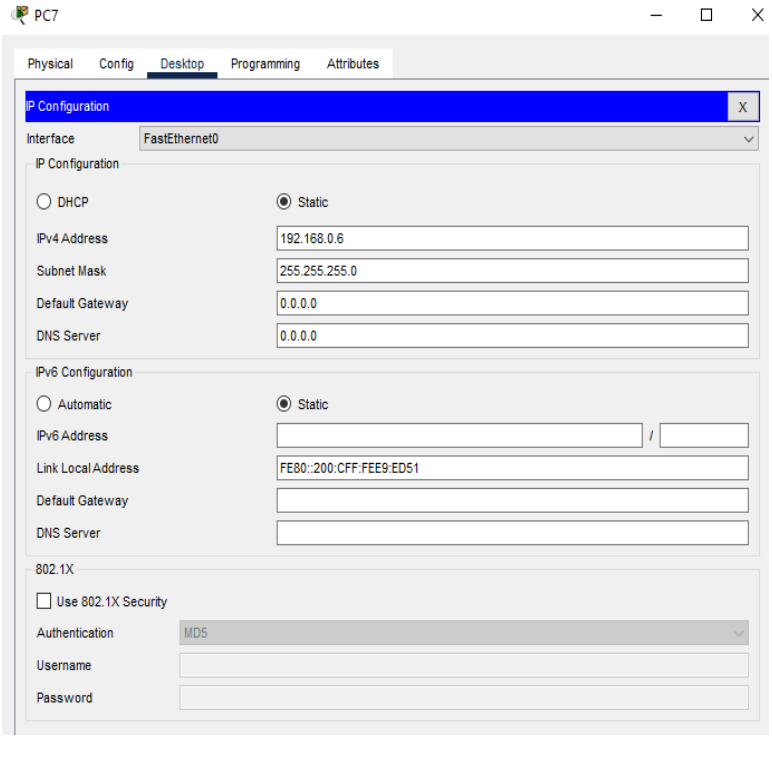

PC2
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.1
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::204:9AFF:FEA4:237E
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top


PC6
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.5
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::2D0:BAFF:FEA8:472B
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC4
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.3
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::201:97FF:FE77:B628
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC5
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.4
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::209:7CFF:FED7:CD2
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC6
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.5
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::2D0:BAFF:FEA8:472B
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password


PC7
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.0.6
Subnet Mask 255.255.255.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address /
Link Local Address FE80::200:CFF:FEE9:ED51
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password