Report for Advertising Client

Introduction

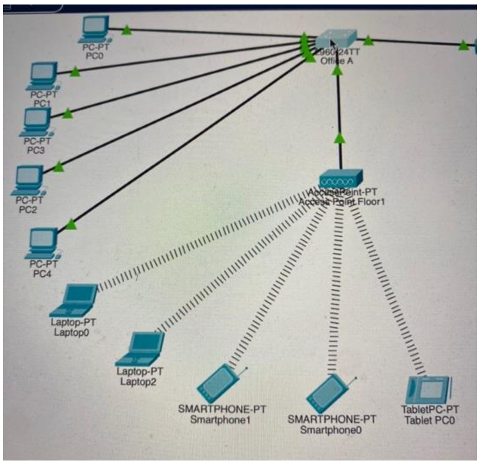
Creating a network for an advertising client is essential to the success of their marketing campaign. Utilizing the correct network can provide an advertising client with valuable insights, contacts, and resources necessary to achieve their marketing goals. In addition, utilizing the right network can position an advertising client in front of a large number of potential clients. This ultimately leads to increased sales and profits for their company. In this report, I will discuss the importance of creating a network for an advertising client while also describing the steps for creating an effective network for an advertising client.

Objectives and Overview of Report

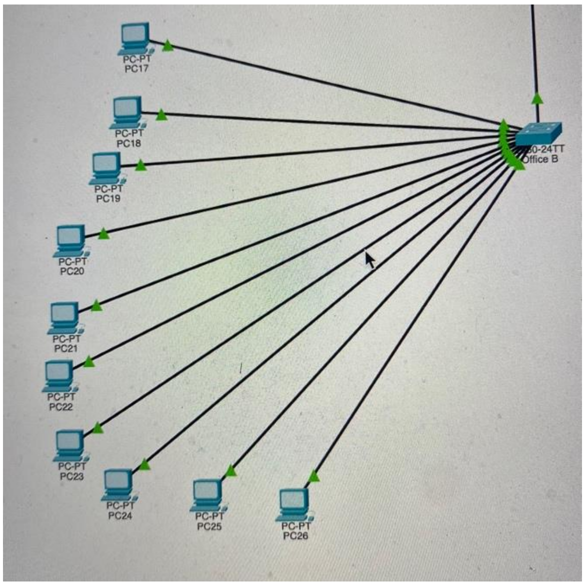
- Identifying and choosing what type of network is needed by the client – it was mentioned in the briefing that the type of network needed is a LAN(local area network).This shows that the network is going to be used in connecting electronic devices in a single, limited area.
- Creating a list of necessary elements needed by the client in the network and element you believe would be necessary by the client as well.
- Start building the network from the base level and then add more elements until the desired network is built. This method helps in tracking the network in case of errors or any problems occur in the building process.

Creating the network

The network being designed for the client is a medium-level LAN network with about 50 employees which would span the 2 floors. Each of this floor should consist of 2 offices with 10 open-plan desks per office i.e. (40 in total) , both wired and wireless connections. I went the route of 5 PCs and 5 wireless connected devices (2 laptops,1 tablet and 2 smartphones) for the first office which is labelled **Office A.** All the devices in Office A were all connected to a switch which also acted as my means of identification for the office name. Since the wireless devices cannot be physically connected to the switch, I deployed an access point which acted as a bridge in connecting the wireless devices to the switch. The PCs which are wired were just connected to the switch directly using Copper Straight-through wires.



Office B consists of 10 PCs which are connected to a different switch which indicates the name of the second office.

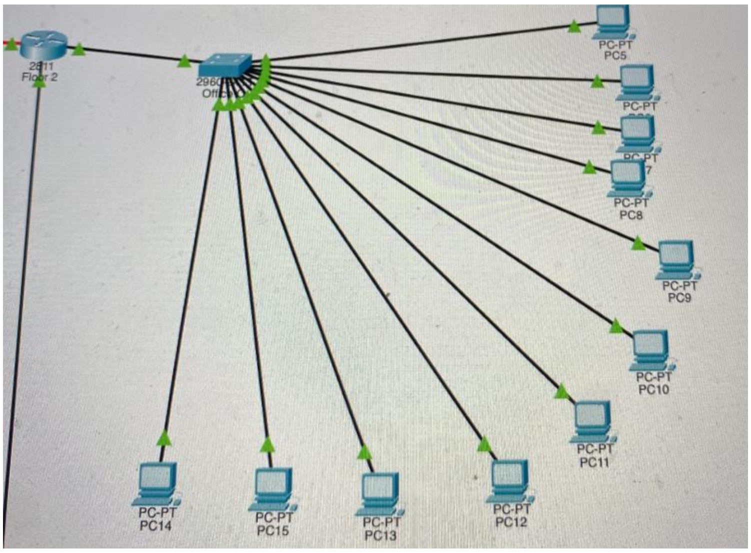


Both of the **Offices A and B** are on the same floor (**Floor 1**) are connected to the same router over Copper Straight-through wires. This router stands as the means for both offices to communicate with each other. The router has 2 Fast Ethernet ports which are where both **Offices** derives their IP addresses from. **Office A** has the IP addresses 192.168.10.1/26 and subnet 255.255.255.192. This also carries over to **Office B** with IP addresses 192.168.30.1/26 and the same subnet as **Office A.** This was achieved by the use of the CIDR IP addressing scheme. The subnet masking indicates that a total of 26 different devices can be connected to this IP address i.e.(26 bits are for the network) even though both offices have just 10 devices each. This gives more space in the offices in the case of more employees are hired or employees bring their personal devices into the building and want to connect to the router from the offices. This would eliminate the hassle of making new IP addresses for those devices.

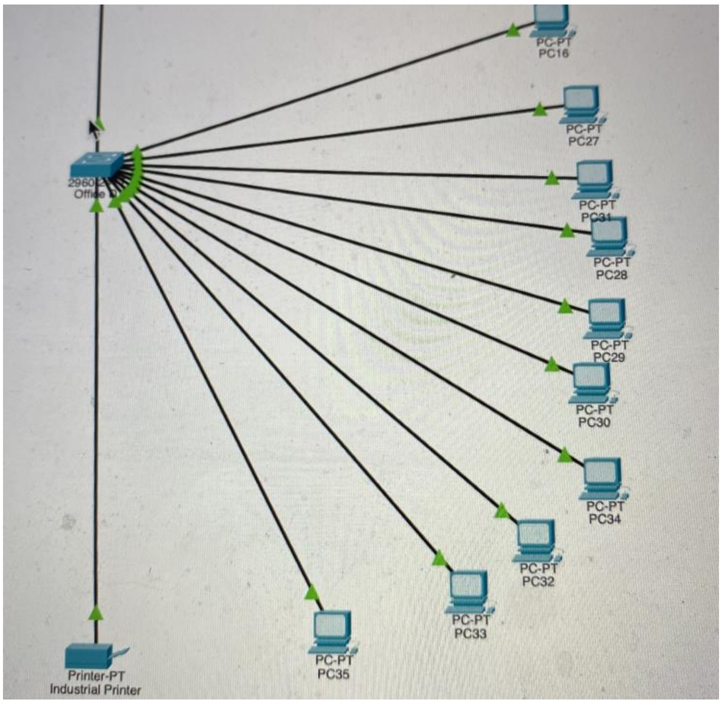
The Classless Inter-Domain Routing (CIDR) IP addressing scheme is a method for assigning addresses within a network. The scheme was designed to make addressing more manageable and efficient. It replaces the old system based on classes A, B, and C. This scheme will help in specifying IP addresses for the networking devices used in the network to ensure scalability while the wastage of addresses is minimized.

These same ideologies and methodologies were applied when designing the second floor of the client's network. It also consists of two separate Offices labelled Offices C and D, each having 10 devices connected to switches which are then connected to each other through a router designated for the floor. Office C has 10 PCs while Office D has 10 PCs and an Industrial Printer which will be used in handling any printing required by the client. Office C has the IP addresses 192.168.20.1/26 and subnet 255.255.255.192 and Office D has the IP addresses 192.168.40.1/26 and subnet 255.255.255.192 like the other offices since we want their sizes to be the same.

Office C



Office D



The printer is the only device on the entire network with a static IP address, this help in making sure that a different IP address is not mistakenly assigned to it and every device trying to connect to it knows the address at any given point. Both of the routers are then connected to each other through a serial connection with Floor 1 having IP addresses

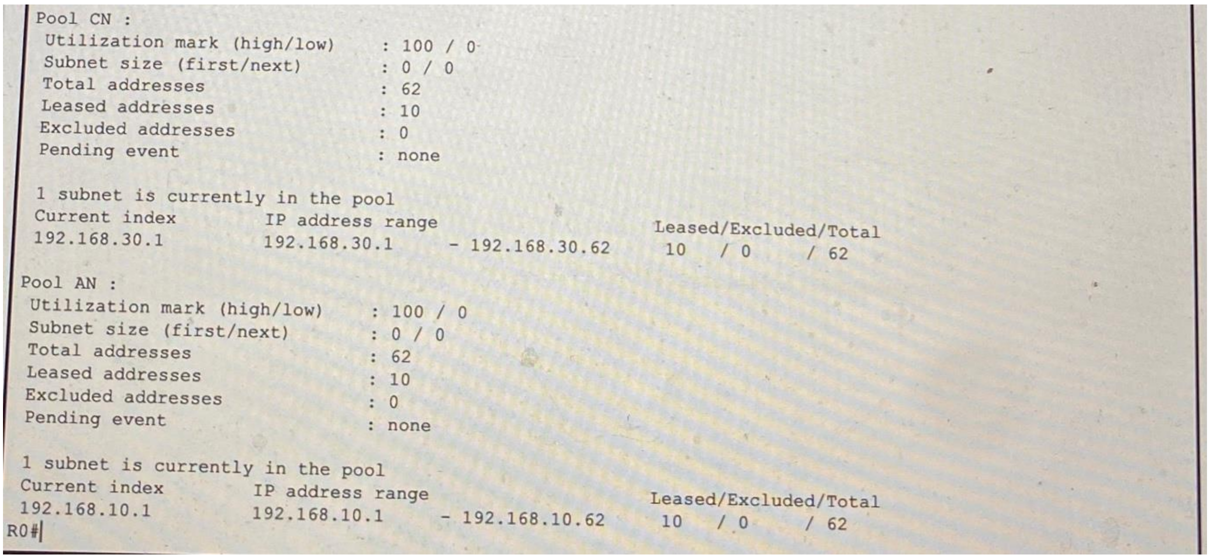
10.10.10.1/8 and subnet mask 255.0.0.0 and Floor 2 has IP address 10.10.20.1/8 and subnet mask 255.0.0.0. Having the extra bits on the network helps the client build upon the already made network if expansion is being considered but not too much that it would be considered not efficient and wastage.

All other devices on the network are all assigned IP addresses using the DHCP protocol. DHCP (Dynamic Host Configuration Protocol) is a protocol used in computer networks to provide the necessary configuration information for a computer on a network. It can be used to create, delete, or configure computers on the network, as well as assign IP addresses to devices on the network.

This protocol is used to configure TCP/IP networks. When a machine connects to the network, it requests an IP address from the DHCP server so that it can communicate with other devices on the network. The DHCP server responds by transmitting the IP address and other information to the machine that requested it. The IP address is used by the machine to connect to the network. The DHCP server maintains a database of all the addresses assigned to devices on the network so that new machines can be added to the network without having to manually configure them. DHCP was used in this network to automatically assign IP addresses to the devices on the network which saves a lot of time when compared to manually assigning IP addresses to each device.

Since there are 2 different offices on each floor, a DHCP pool was made for each office which adds up to a total of four DHCP pools used in the network. Both floor's DHCP will be shown below:

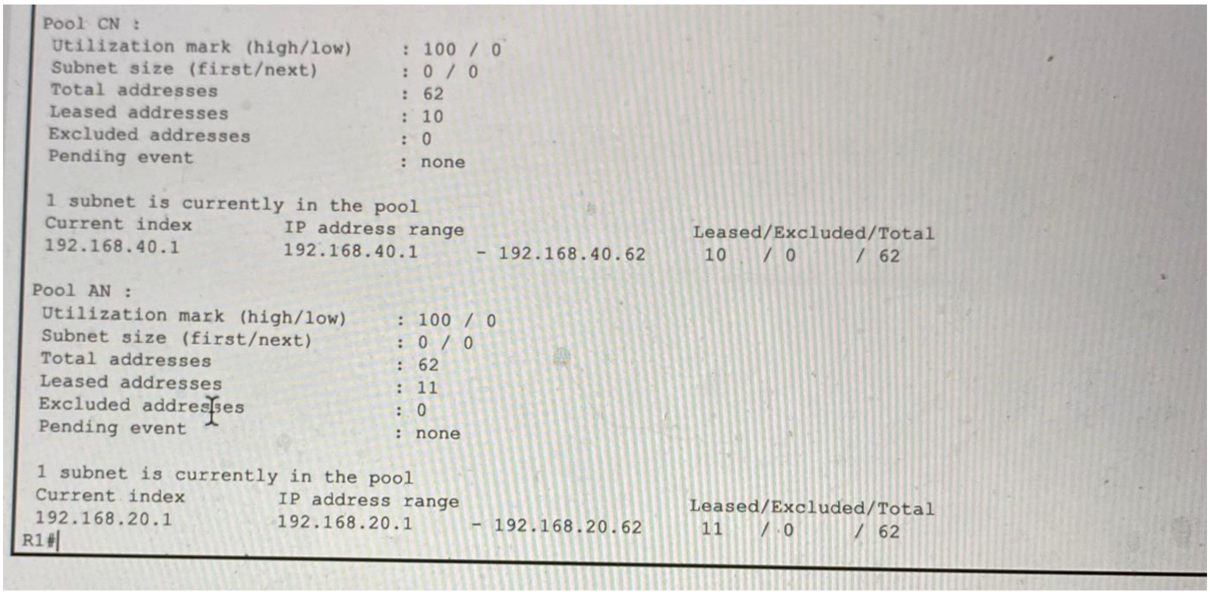
Floor 1:



```
Pool CN :
 Utilization mark (high/low)    : 100 / 0
 Subnet size (first/next)       : 0 / 0
 Total addresses                : 62
 Leased addresses               : 10
 Excluded addresses             : 0
 Pending event                  : none

 1 subnet is currently in the pool
 Current index        IP address range                    Leased/Excluded/Total
 192.168.30.1         192.168.30.1     - 192.168.30.62     10    / 0     / 62

Pool AN :
 Utilization mark (high/low)    : 100 / 0
 Subnet size (first/next)       : 0 / 0
 Total addresses                : 62
 Leased addresses               : 10
 Excluded addresses             : 0
 Pending event                  : none

 1 subnet is currently in the pool
 Current index        IP address range                    Leased/Excluded/Total
 192.168.10.1         192.168.10.1     - 192.168.10.62     10    / 0     / 62
R0#
```

Pool CN is the DHCP pool for Office B and Pool AN is that of Office A.

Floor 2:



```
Pool CN :
 Utilization mark (high/low)    : 100 / 0
 Subnet size (first/next)       : 0 / 0
 Total addresses                : 62
 Leased addresses               : 10
 Excluded addresses             : 0
 Pending event                  : none

 1 subnet is currently in the pool
 Current index        IP address range                    Leased/Excluded/Total
 192.168.40.1         192.168.40.1     - 192.168.40.62     10    / 0     / 62

Pool AN :
 Utilization mark (high/low)    : 100 / 0
 Subnet size (first/next)       : 0 / 0
 Total addresses                : 62
 Leased addresses               : 11
 Excluded addresses             : 0
 Pending event                  : none

 1 subnet is currently in the pool
 Current index        IP address range                    Leased/Excluded/Total
 192.168.20.1         192.168.20.1     - 192.168.20.62     11    / 0     / 62
R1#
```

Pool CN is the DHCP pool for Office D and Pool AN is for Office A.

Another protocol used within the network is the RIP routing protocol in particular version 2. The RIPv2 (routing information protocol version 2) is a classless, distance vector routing protocol as defined in RFC 1723. A classless routing protocol simply means the subnet mask is included within the network address in its routing updates. RIPv2 is based on the IEEE 802.1D standard and supports both IPv4 and IPv6 networks. Compared to RIPv1, RIPv2 has many significant improvements. Some of these improvements include support for faster convergence times and increased security. RIPv2 was introduced as a replacement for the aging RIPv1 protocol due to its lower overhead and better scalability. RIPv2 is used when creating the network to share IP addresses between networks to enable each device to be able to route any message through the network. Below is the routing table for each router in the network.

Floor 1:

```
R0#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 10.0.0.0/8 is directly connected, Serial0/3/0
```

```
L 10.10.10.1/32 is directly connected, Serial0/3/0
192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.10.0/26 is directly connected, FastEthernet0/0
L 192.168.10.1/32 is directly connected, FastEthernet0/0
R 192.168.20.0/24 [120/1] via 10.10.20.1, 00:00:18, Serial0/3/0
192.168.30.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.30.0/26 is directly connected, FastEthernet0/1
L 192.168.30.1/32 is directly connected, FastEthernet0/1
R 192.168.40.0/24 [120/1] via 10.10.20.1, 00:00:18, Serial0/3/0
```

Floor 2:

```
R1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 10.0.0.0/8 is directly connected, Serial0/3/0
L 10.10.20.1/32 is directly connected, Serial0/3/0
R 192.168.10.0/24 [120/1] via 10.10.10.1, 00:00:26, Serial0/3/0
192.168.20.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.20.0/26 is directly connected, FastEthernet0/0
L 192.168.20.1/32 is directly connected, FastEthernet0/0
R 192.168.30.0/24 [120/1] via 10.10.10.1, 00:00:26, Serial0/3/0
192.168.40.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.40.0/26 is directly connected, FastEthernet0/1
L 192.168.40.1/32 is directly connected, FastEthernet0/1
```

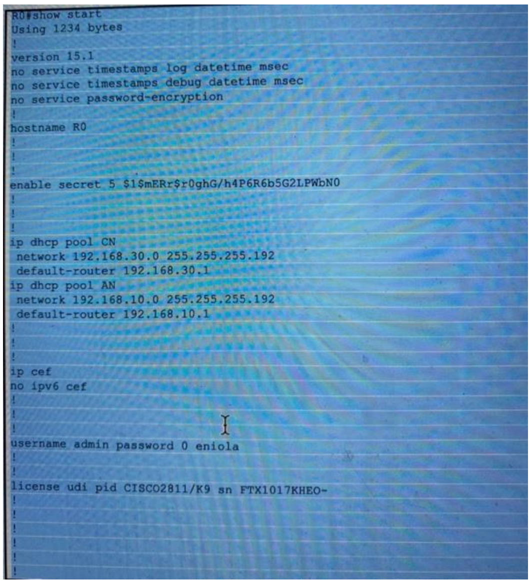
A total of 7 networking devices were used when designing the discussed network and they are as listed:

- Router (Floor 1)
- Router(Floor 2)
- Switch(Office A)
- Switch(Office B)
- Switch(Office C)
- Switch(Office D)
- Access Point 1

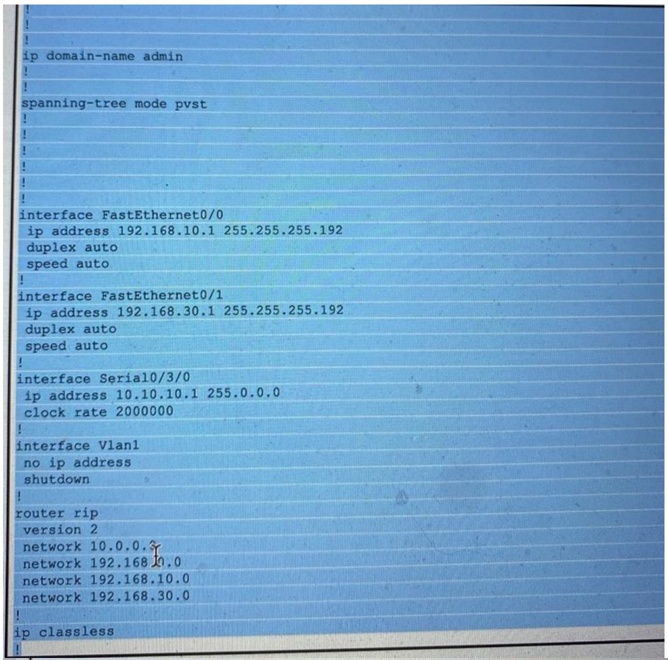
The switches were used in connecting the devices in their offices to the router responsible for connectivity there. The access point was used in connecting the wireless devices in Office A to the switch as they cannot be connected physically. The routers were assigned to each floor the help the devices be able to connect to other devices not in their IP address. Two routers were used as they were cost efficient and could designate IP addresses within a router to different offices on the floor instead of having a router per office which seemed excessive and would be too expensive and impractical.

Configuration details of each networking device will be shown below next.

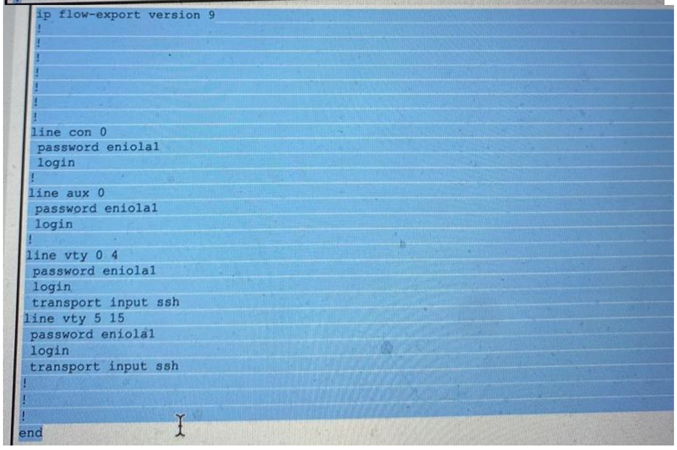
Router (Floor 1):



```
R0#show start
Using 1234 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R0
!
!
!
enable secret 5 $1$mERr$r0ghG/h4P6R6b5G2LPWbN0
!
!
!
ip dhcp pool CN
 network 192.168.30.0 255.255.255.192
 default-router 192.168.30.1
ip dhcp pool AN
 network 192.168.10.0 255.255.255.192
 default-router 192.168.10.1
!
!
!
ip cef
no ipv6 cef
!
!
!
username admin password 0 eniola
!
!
license udi pid CISCO2811/K9 sn FTX1017KHEO-
!
!
!
!
!
!
```

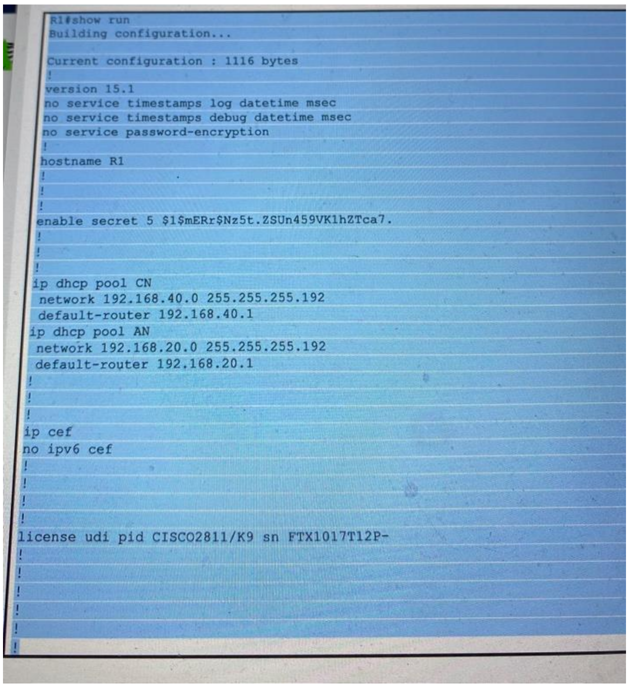


```
!
!
!
ip domain-name admin
!
!
spanning-tree mode pvst
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 192.168.10.1 255.255.255.192
 duplex auto
 speed auto
!
interface FastEthernet0/1
 ip address 192.168.30.1 255.255.255.192
 duplex auto
 speed auto
!
interface Serial0/3/0
 ip address 10.10.10.1 255.0.0.0
 clock rate 2000000
!
interface Vlan1
 no ip address
 shutdown
!
router rip
 version 2
 network 10.0.0.0
 network 192.168.20.0
 network 192.168.10.0
 network 192.168.30.0
!
ip classless
!
```

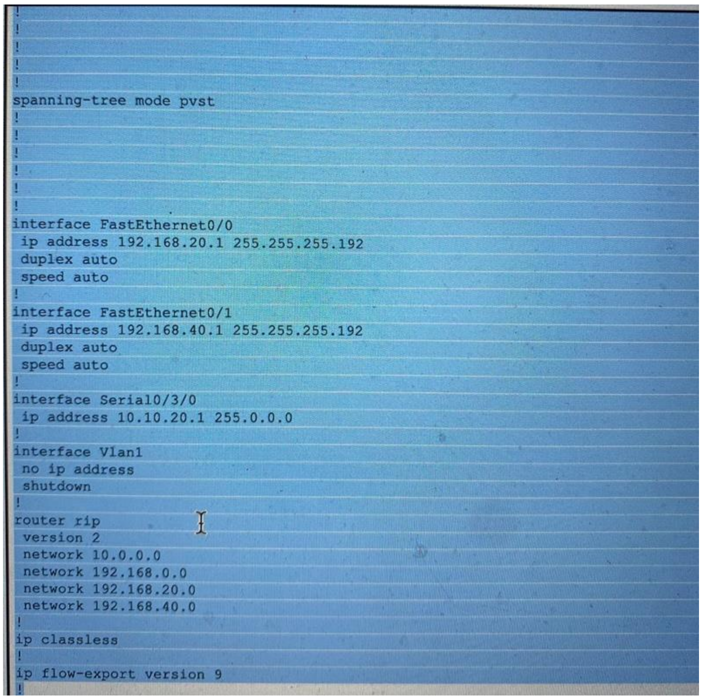


```
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
 password eniola1
 login
!
line aux 0
 password eniola1
 login
!
line vty 0 4
 password eniola1
 login
 transport input ssh
line vty 5 15
 password eniola1
 login
 transport input ssh
!
!
!
end
```

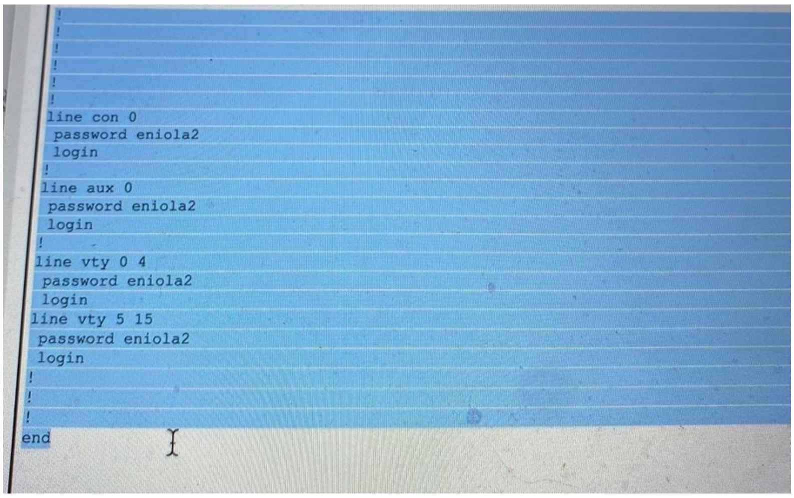
Router (Floor 2):



```
R1#show run
Building configuration...

Current configuration : 1116 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R1
!
!
!
enable secret 5 $1$mERr$Nz5t.ZSUn459VK1hZTca7.
!
!
!
ip dhcp pool CN
 network 192.168.40.0 255.255.255.192
 default-router 192.168.40.1
ip dhcp pool AN
 network 192.168.20.0 255.255.255.192
 default-router 192.168.20.1
!
!
!
ip cef
no ipv6 cef
!
!
!
!
license udi pid CISCO2811/K9 sn FTX1017T12P-
!
!
!
!
!
!
```

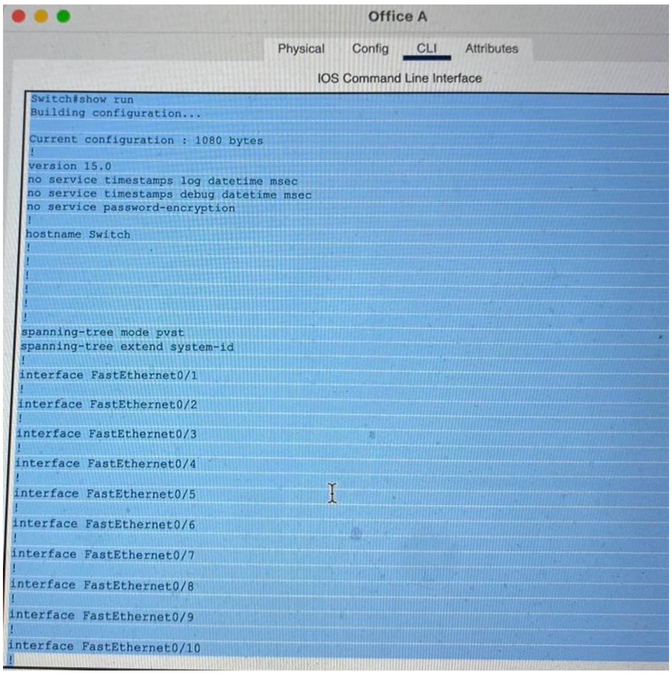


```
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 192.168.20.1 255.255.255.192
 duplex auto
 speed auto
!
interface FastEthernet0/1
 ip address 192.168.40.1 255.255.255.192
 duplex auto
 speed auto
!
interface Serial0/3/0
 ip address 10.10.20.1 255.0.0.0
!
interface Vlan1
 no ip address
 shutdown
!
router rip
 version 2
 network 10.0.0.0
 network 192.168.0.0
 network 192.168.20.0
 network 192.168.40.0
!
ip classless
!
ip flow-export version 9
!
```

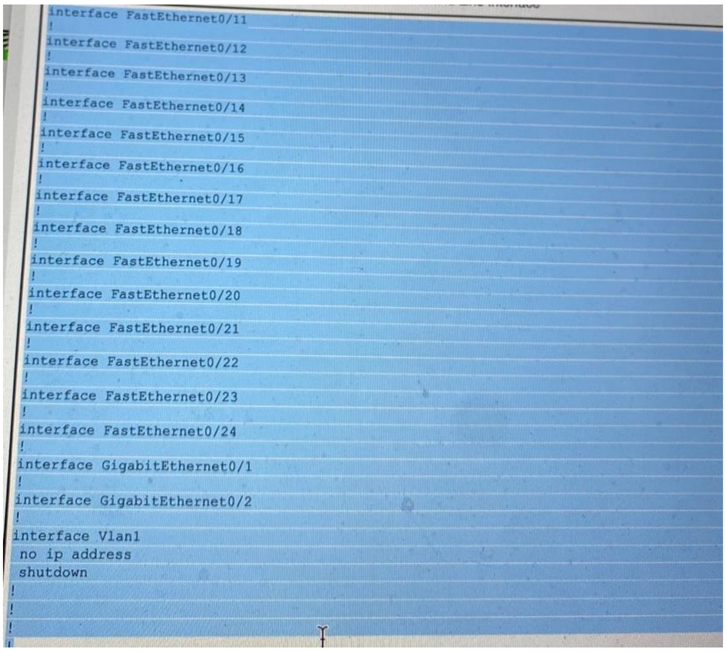


```
!
!
!
!
!
!
line con 0
 password eniola2
 login
!
line aux 0
 password eniola2
 login
!
line vty 0 4
 password eniola2
 login
line vty 5 15
 password eniola2
 login
!
!
!
end
```

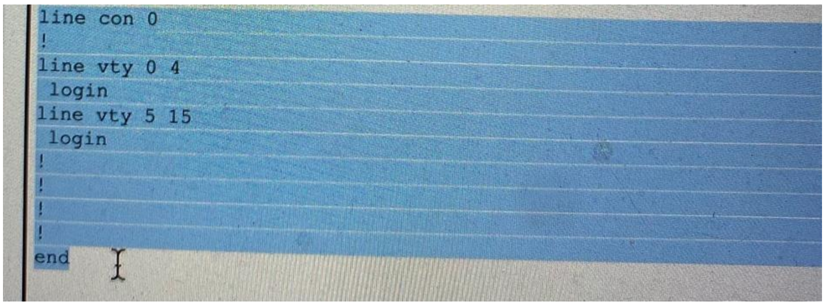
Switch (Office A)



```
Switch#show run
Building configuration...

Current configuration : 1080 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Switch
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
interface FastEthernet0/2
!
interface FastEthernet0/3
!
interface FastEthernet0/4
!
interface FastEthernet0/5
!
interface FastEthernet0/6
!
interface FastEthernet0/7
!
interface FastEthernet0/8
!
interface FastEthernet0/9
!
interface FastEthernet0/10
!
```

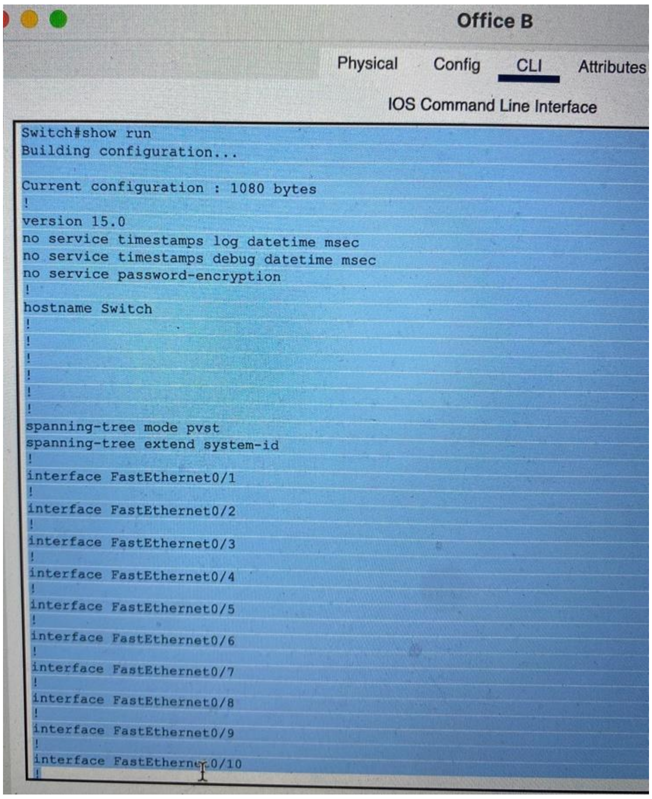


```
interface FastEthernet0/11
!
interface FastEthernet0/12
!
interface FastEthernet0/13
!
interface FastEthernet0/14
!
interface FastEthernet0/15
!
interface FastEthernet0/16
!
interface FastEthernet0/17
!
interface FastEthernet0/18
!
interface FastEthernet0/19
!
interface FastEthernet0/20
!
interface FastEthernet0/21
!
interface FastEthernet0/22
!
interface FastEthernet0/23
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
 shutdown
!
!
!
!
```

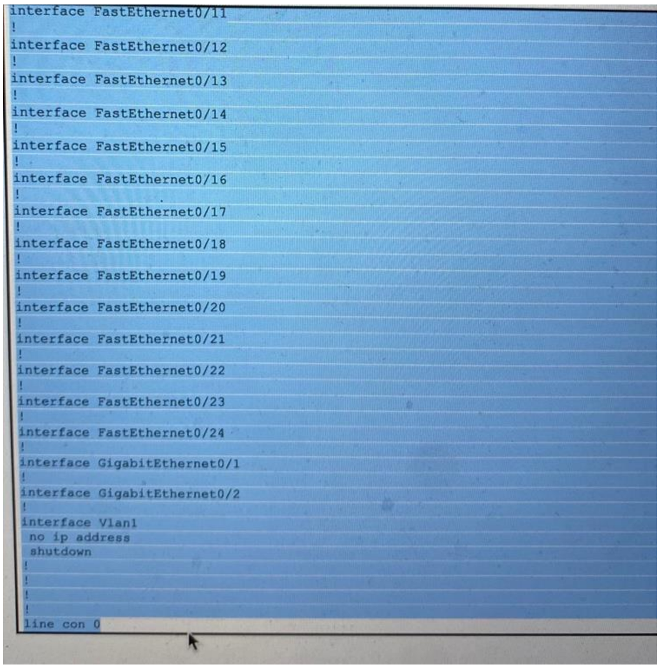


```
line con 0
!
line vty 0 4
 login
line vty 5 15
 login
!
!
!
!
end
```

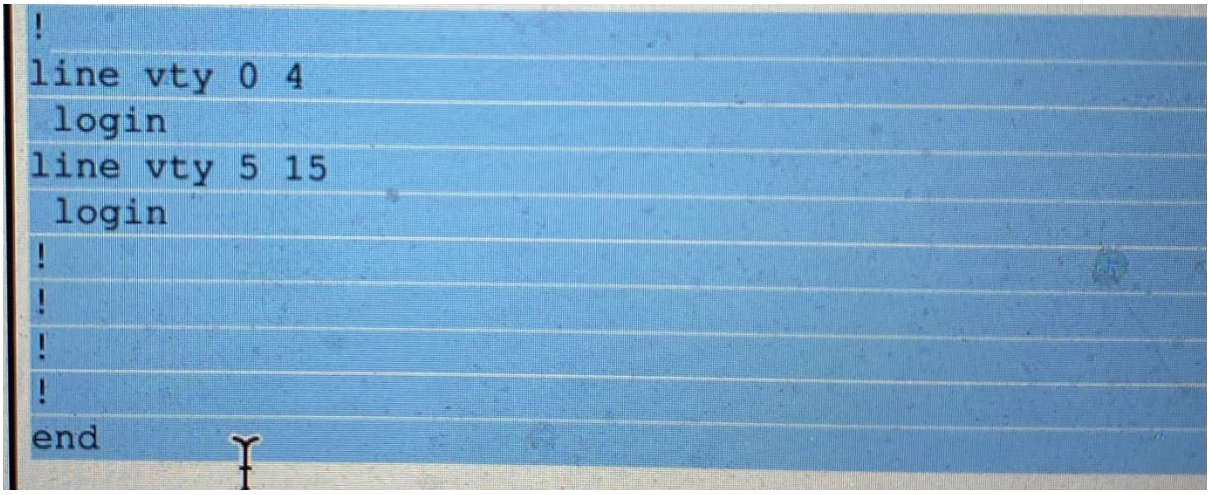
Switch (Office B)



```
Switch#show run
Building configuration...

Current configuration : 1080 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Switch
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
interface FastEthernet0/2
!
interface FastEthernet0/3
!
interface FastEthernet0/4
!
interface FastEthernet0/5
!
interface FastEthernet0/6
!
interface FastEthernet0/7
!
interface FastEthernet0/8
!
interface FastEthernet0/9
!
interface FastEthernet0/10
!
```

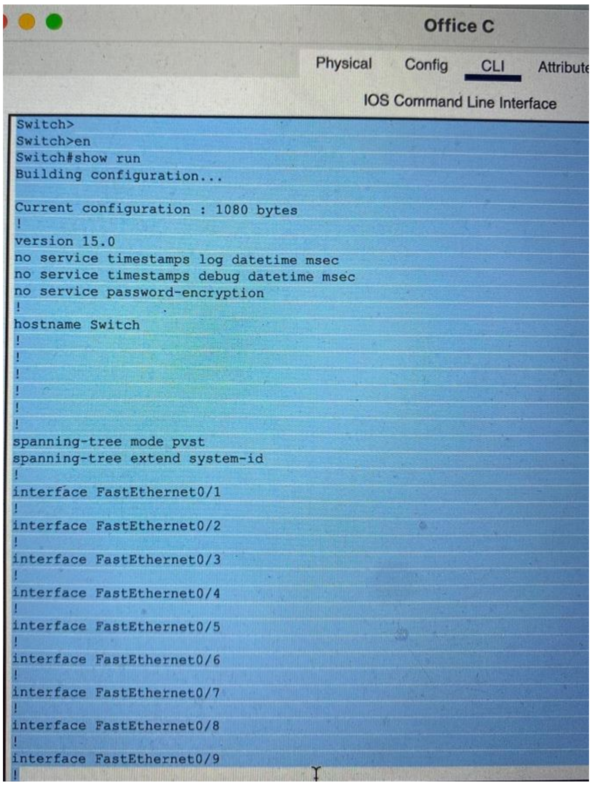


```
interface FastEthernet0/11
!
interface FastEthernet0/12
!
interface FastEthernet0/13
!
interface FastEthernet0/14
!
interface FastEthernet0/15
!
interface FastEthernet0/16
!
interface FastEthernet0/17
!
interface FastEthernet0/18
!
interface FastEthernet0/19
!
interface FastEthernet0/20
!
interface FastEthernet0/21
!
interface FastEthernet0/22
!
interface FastEthernet0/23
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
 shutdown
!
!
!
!
line con 0
```

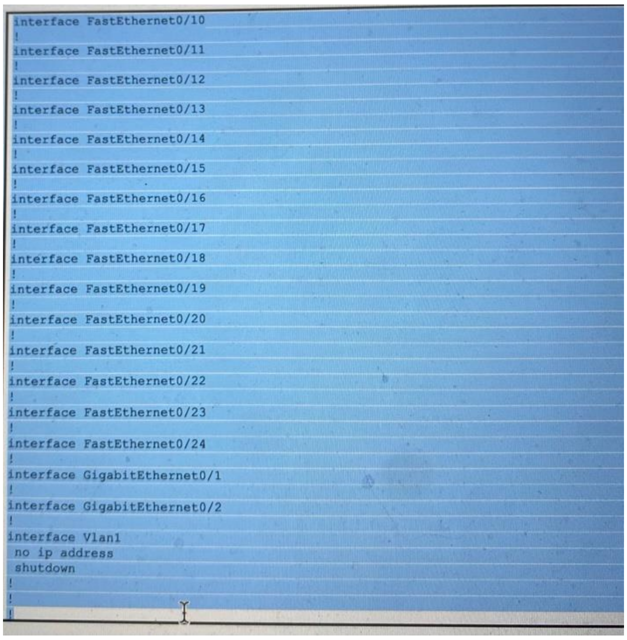


```
!
line vty 0 4
 login
line vty 5 15
 login
!
!
!
!
end
```

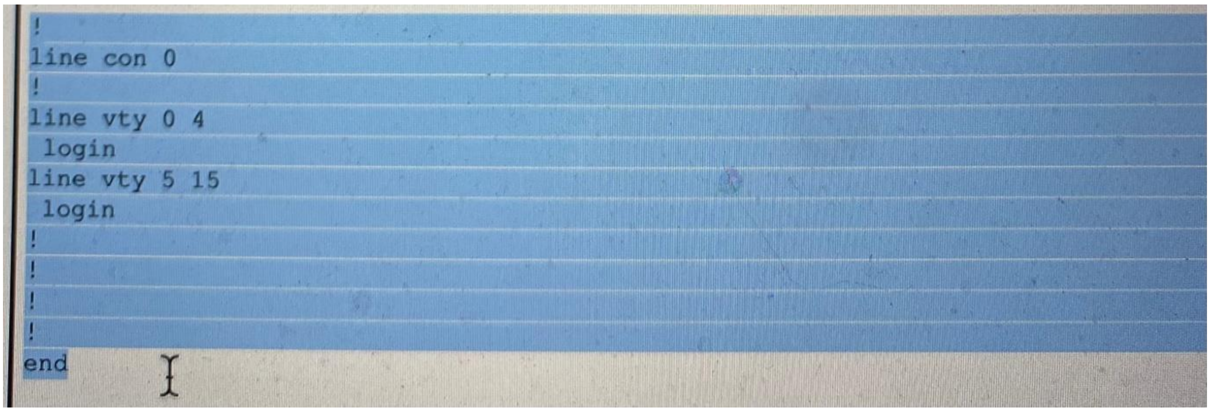
Switch (Office C)



```
Switch>
Switch>en
Switch#show run
Building configuration...

Current configuration : 1080 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Switch
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
interface FastEthernet0/2
!
interface FastEthernet0/3
!
interface FastEthernet0/4
!
interface FastEthernet0/5
!
interface FastEthernet0/6
!
interface FastEthernet0/7
!
interface FastEthernet0/8
!
interface FastEthernet0/9
!
```

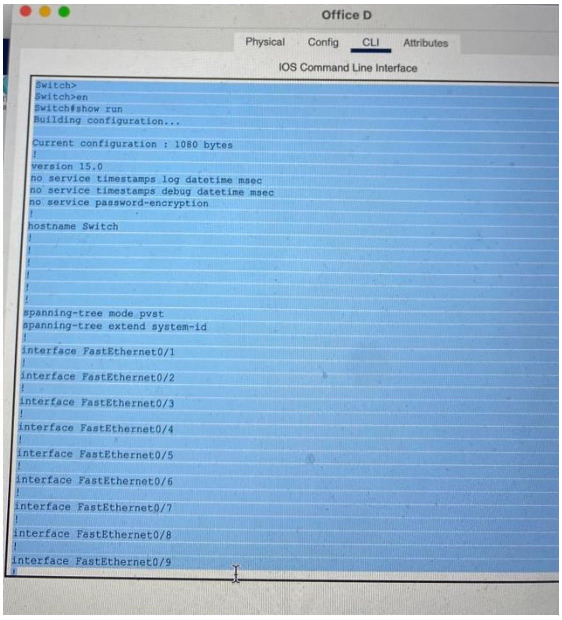


```
interface FastEthernet0/10
!
interface FastEthernet0/11
!
interface FastEthernet0/12
!
interface FastEthernet0/13
!
interface FastEthernet0/14
!
interface FastEthernet0/15
!
interface FastEthernet0/16
!
interface FastEthernet0/17
!
interface FastEthernet0/18
!
interface FastEthernet0/19
!
interface FastEthernet0/20
!
interface FastEthernet0/21
!
interface FastEthernet0/22
!
interface FastEthernet0/23
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
 shutdown
!
!
!
```

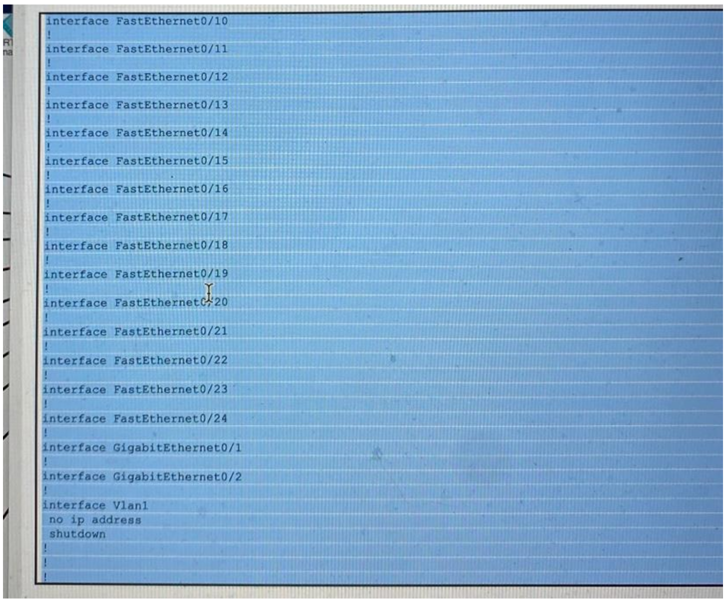


```
!
line con 0
!
line vty 0 4
 login
line vty 5 15
 login
!
!
!
!
end
```

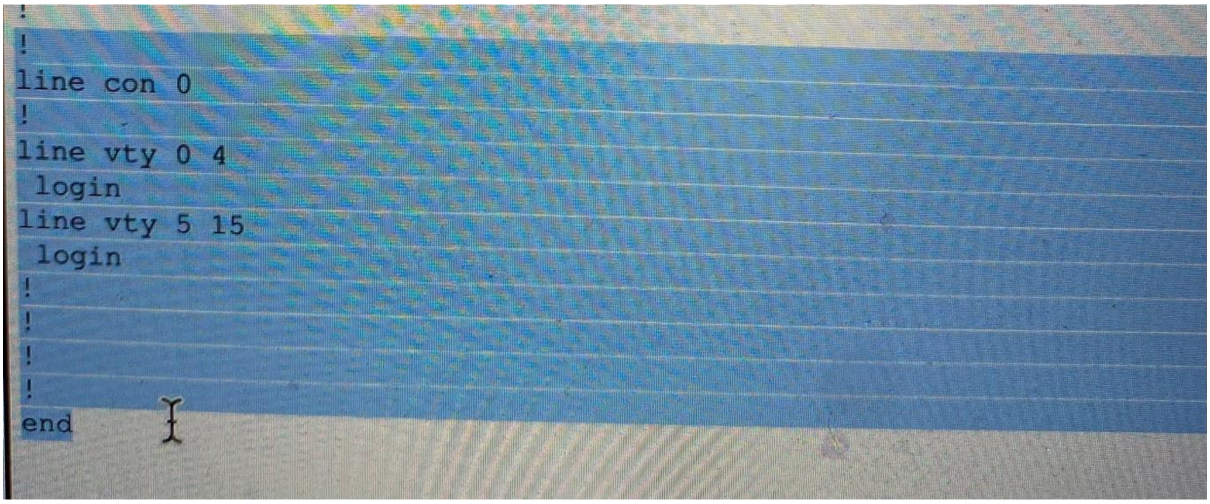
Switch (Office D)



```
Switch>
Switch>en
Switch#show run
Building configuration...

Current configuration : 1080 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Switch
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
interface FastEthernet0/2
!
interface FastEthernet0/3
!
interface FastEthernet0/4
!
interface FastEthernet0/5
!
interface FastEthernet0/6
!
interface FastEthernet0/7
!
interface FastEthernet0/8
!
interface FastEthernet0/9
!
```

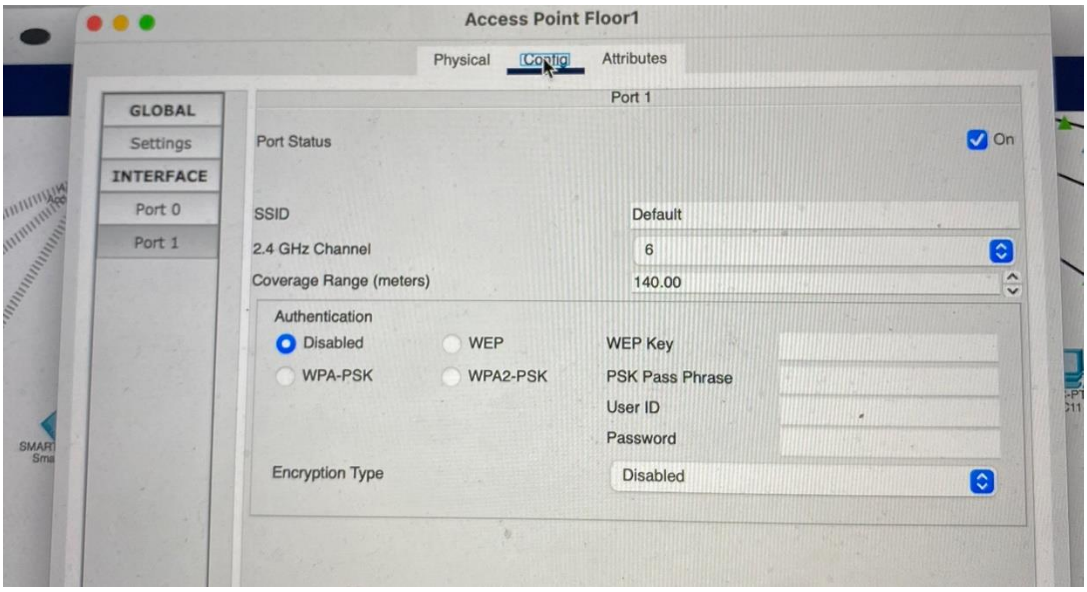


```
interface FastEthernet0/10
!
interface FastEthernet0/11
!
interface FastEthernet0/12
!
interface FastEthernet0/13
!
interface FastEthernet0/14
!
interface FastEthernet0/15
!
interface FastEthernet0/16
!
interface FastEthernet0/17
!
interface FastEthernet0/18
!
interface FastEthernet0/19
!
interface FastEthernet0/20
!
interface FastEthernet0/21
!
interface FastEthernet0/22
!
interface FastEthernet0/23
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
 shutdown
!
!
!
```



```
!
!
line con 0
!
line vty 0 4
 login
line vty 5 15
 login
!
!
!
!
end
```

Access Point



Port 1

Port Status ☑ On

SSID: Default

2.4 GHz Channel: 6

Coverage Range (meters): 140.00

Authentication

● Disabled ○ WEP

○ WPA-PSK ○ WPA2-PSK

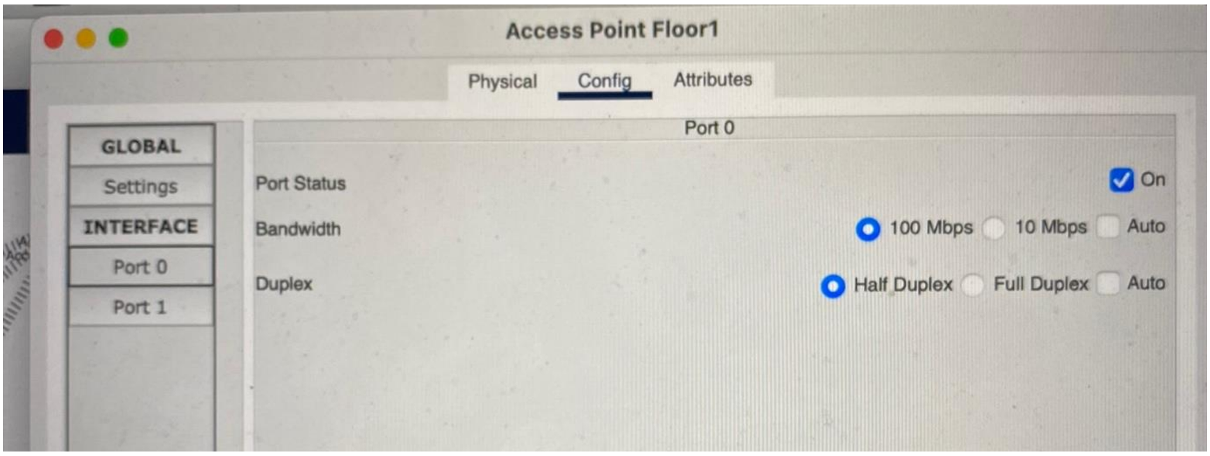
WEP Key

PSK Pass Phrase

User ID

Password

Encryption Type: Disabled



Port 0

Port Status ☑ On

Bandwidth ● 100 Mbps ○ 10 Mbps □ Auto

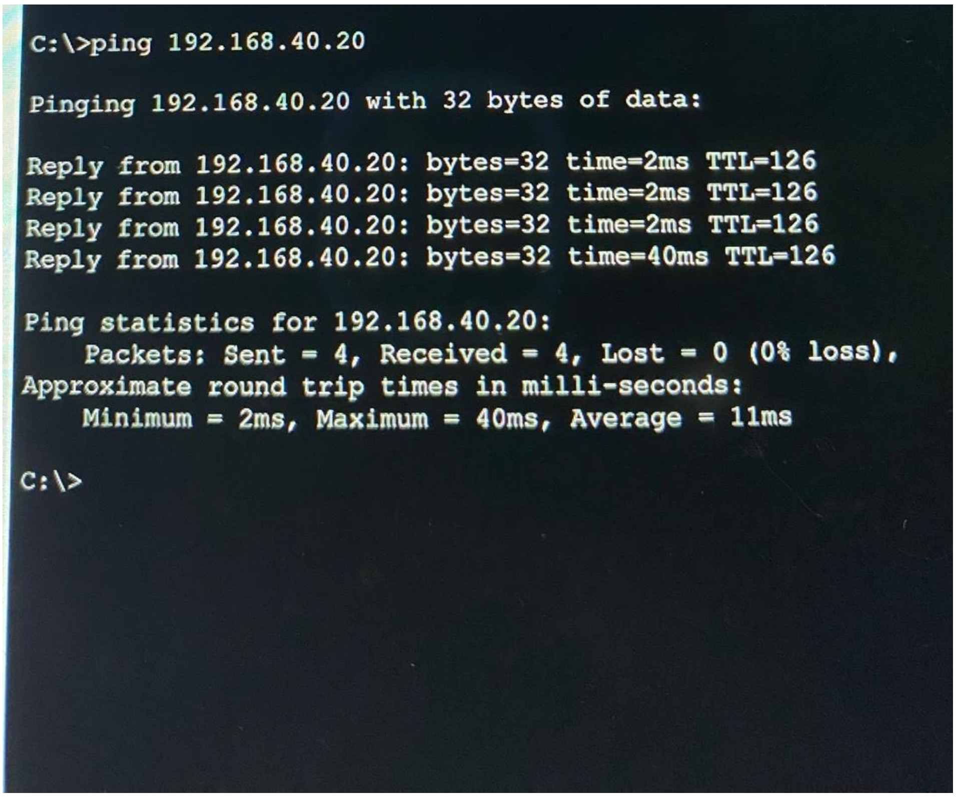
Duplex ● Half Duplex ○ Full Duplex □ Auto

When setting up the configurations for the routers, passwords were set for the enable mode, line vty 0 15 (telnet), line console 0 (console port) and line aux 0 (auxiliary port). The enable mode was set so as to avoid someone who is not authorized personnel to get into the configuration of the network and make changes without the knowledge of my client. Same applies to the console and auxiliary ports. The telnet enables personnel to set up TCP/IP connections to a host which in this case is the routers. It allows you from a local site to be able to establish a TCP connection to a login server in another location and can take control of the device and keystroke locally. This is the reason why a password needs to be set to prevent unauthorized personnel to have access and do the above. A telnet is not a secured enough way of accessing a host from a different site as data is transported in plain text and can be understood easily if intercepted. This brought about the need for the SSH (Secure Shell) in this particular network. SSH is a network communication protocol that enables two computers to communicate and share data but the inherent feature that makes it different to telnet is that the communication is encrypted and cannot be understood if intercepted or leaked. This was done on the Floor 1 router of the network as shown below.

```
R0>en
Password:
R0#sh ip ssh
SSH Enabled - version 1.99
Authentication timeout: 120 secs; Authentication retries: 3
```

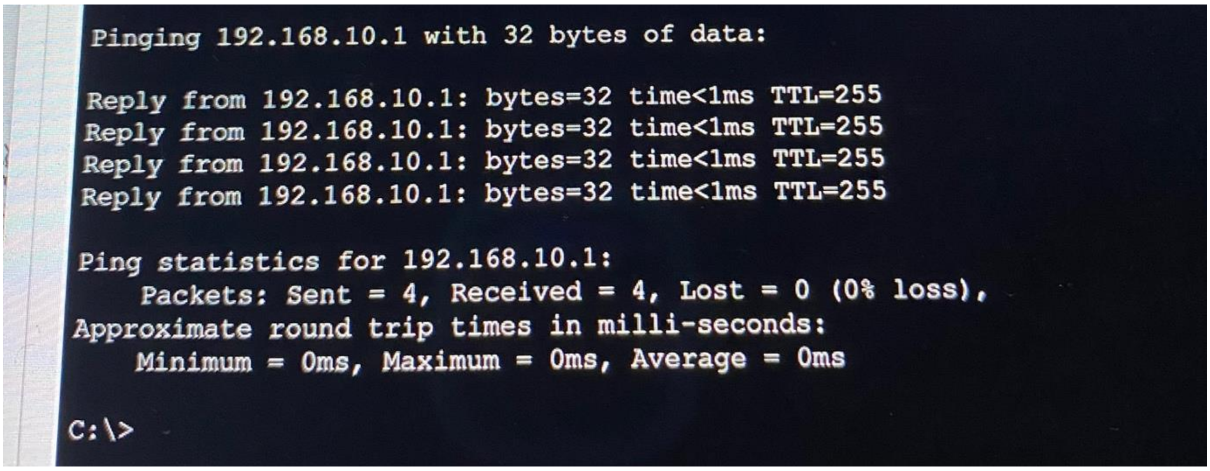
Evidence of connectivity in the network

To show proof of connectivity a ping command will be run on one of the devices in Office A to the printer



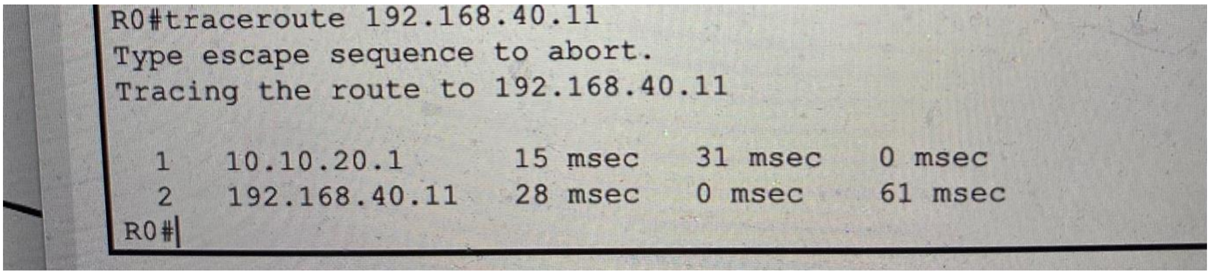
```
C:\>ping 192.168.40.20

Pinging 192.168.40.20 with 32 bytes of data:

Reply from 192.168.40.20: bytes=32 time=2ms TTL=126
Reply from 192.168.40.20: bytes=32 time=2ms TTL=126
Reply from 192.168.40.20: bytes=32 time=2ms TTL=126
Reply from 192.168.40.20: bytes=32 time=40ms TTL=126

Ping statistics for 192.168.40.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 40ms, Average = 11ms

C:\>
```

Below is also a ping between a PC and a Floor 1 router



```
Pinging 192.168.10.1 with 32 bytes of data:

Reply from 192.168.10.1: bytes=32 time<1ms TTL=255
Reply from 192.168.10.1: bytes=32 time<1ms TTL=255
Reply from 192.168.10.1: bytes=32 time<1ms TTL=255
Reply from 192.168.10.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.10.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Another way of verifying connectivity in the network is traceroute. Tracerouting simply tracks the path an IP takes across networks. This can be achieved with the traceroute command like shown below. It is the path a pc in Office D take to reach Floor 1 router



```
R0#traceroute 192.168.40.11
Type escape sequence to abort.
Tracing the route to 192.168.40.11

  1   10.10.20.1      15 msec   31 msec   0 msec
  2   192.168.40.11   28 msec   0 msec    61 msec
R0#
```

In conclusion, the network designed and discussed above ticks all of my client's needs while also making sure the network is scalable if the client would like to expand the network later down the line. There's also been evidence attached above of the network connectivity to assure the client that the network is indeed working for their intended purpose.

References

- Cisco Systems Inc, (n.d.) 'What is a Lan?', Available at : https://www.ucl.ac.uk/isd/what-ssh-and-how-do-i-use-it (Accessed on: 26th December 2022).
- KeyCdn, (2018) 'What is a CIDR (Classless Inter-Domain Routing)?',4th October, Available at: https://www.keycdn.com/support/what-is-cidr#:~:text=CIDR%2C%20which%20stands%20for%20Classless,the%20growth%20of%20routing%20tables (Accessed on : 26th December 2022).

- Orbitco, (2015) ‘RIPv2 Explained with Examples’,9th November, Available at: https://www.orbit-computer-solutions.com/ripv2/ (Accessed on: 26th December 2022).
- Cisco Systems Inc, (n.d.) ‘Configuring Telnet’, Available at: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus1000/sw/4_0/security/configuration/guide/n1000v_security/security_7telnet.pdf (Accessed on: 26th December 2022).
- UCL, (n.d.) ‘What is SSH and how do I use it?’, Available at: https://www.ucl.ac.uk/isd/what-ssh-and-how-do-i-use-it (Accessed on: 26th December 2022).