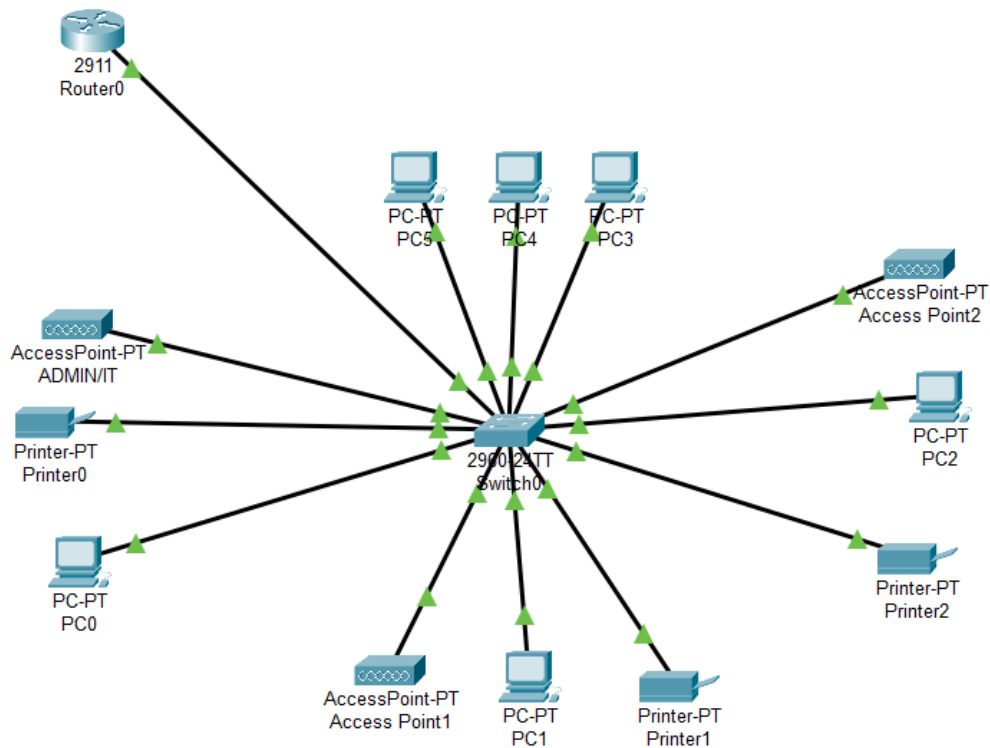# Network Troubleshooting and Enhancement Assignment

Submitted by Jaik Iype, ID Number:  24159379

## Complete Network Topology Overview



## Router Configuration

```
Device Name: Router0
Device Model: 2911
Hostname: Router

Port                    Link    VLAN    IP Address        IPv6 Address       MAC Address
GigabitEthernet0/0      Up      --      <not set>         <not set>          0010.1144.3B01
GigabitEthernet0/0.10   Up      --      192.168.1.62/26   <not set>          0010.1144.3B01
GigabitEthernet0/0.20   Up      --      192.168.1.126/26  <not set>          0010.1144.3B01
GigabitEthernet0/0.30   Up      --      192.168.1.190/26  <not set>          0010.1144.3B01
GigabitEthernet0/0.115  Up      --      192.168.50.1/24   <not set>          0010.1144.3B01
GigabitEthernet0/1      Down    --      <not set>         <not set>          0010.1144.3B02
GigabitEthernet0/2      Down    --      <not set>         <not set>          0010.1144.3B03
Vlan1                   Down    1       <not set>         <not set>          0001.42A9.3B9D

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Router0
```

## Switch Configuration

```
Device Name: Switch0
Custom Device Model: 2960 IOS15
Hostname: Switch

Port                Link   VLAN   IP Address        MAC Address
FastEthernet0/1     Up     --     --                0003.E443.A801
FastEthernet0/2     Up     10     --                0003.E443.A802
FastEthernet0/3     Up     10     --                0003.E443.A803
FastEthernet0/4     Up     10     --                0003.E443.A804
FastEthernet0/5     Up     20     --                0003.E443.A805
FastEthernet0/6     Up     20     --                0003.E443.A806
FastEthernet0/7     Up     20     --                0003.E443.A807
FastEthernet0/8     Up     30     --                0003.E443.A808
FastEthernet0/9     Up     30     --                0003.E443.A809
FastEthernet0/10    Up     30     --                0003.E443.A80A
FastEthernet0/11    Up     115    --                0003.E443.A80B
FastEthernet0/12    Up     115    --                0003.E443.A80C
FastEthernet0/13    Up     115    --                0003.E443.A80D
FastEthernet0/14    Down   1      --                0003.E443.A80E
FastEthernet0/15    Down   1      --                0003.E443.A80F
FastEthernet0/16    Down   1      --                0003.E443.A810
FastEthernet0/17    Down   1      --                0003.E443.A811
FastEthernet0/18    Down   1      --                0003.E443.A812
FastEthernet0/19    Down   1      --                0003.E443.A813
FastEthernet0/20    Down   1      --                0003.E443.A814
FastEthernet0/21    Down   1      --                0003.E443.A815
FastEthernet0/22    Down   1      --                0003.E443.A816
FastEthernet0/23    Down   1      --                0003.E443.A817
FastEthernet0/24    Down   1      --                0003.E443.A818
GigabitEthernet0/1  Down   1      --                0003.E443.A819
GigabitEthernet0/2  Down   1      --                0003.E443.A81A
Vlan1               Down   1      <not set>         0003.E4CE.3925

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch0
```

## Configurations of PC3, PC4, PC5

### PC3

```
Device Name: PC3
Device Model: PC-PT

Port            Link   IP Address          IPv6 Address          MAC Address
FastEthernet0   Up     192.168.50.3/24     <not set>             0002.1784.4D2C
Bluetooth       Down   <not set>           <not set>             0001.634B.AD0D

Gateway: 192.168.50.1
DNS Server: 192.168.50.1
Line Number:  <not set>

Physical Location: Intercity > Home City > Corporate Office > PC3
```

**PC4**

```
Device Name: PC4
Device Model: PC-PT

Port            Link    IP Address       IPv6 Address                    MAC Address
FastEthernet0   Up      192.168.50.4/24  <not set>                       0090.2B86.4DA8
Bluetooth       Down    <not set>        <not set>                       000A.41B7.31E7

Gateway: 192.168.50.1
DNS Server: 192.168.50.1
Line Number:  <not set>

Physical Location: Intercity > Home City > Corporate Office > PC4
```

**PC5**

```
Device Name: PC5
Device Model: PC-PT

Port            Link    IP Address       IPv6 Address                    MAC Address
FastEthernet0   Up      192.168.50.2/24  <not set>                       0060.2F2B.7DE9
Bluetooth       Down    <not set>        <not set>                       0001.9784.570E

Gateway: 192.168.50.1
DNS Server: 192.168.50.1
Line Number:  <not set>

Physical Location: Intercity > Home City > Corporate Office > PC5
```
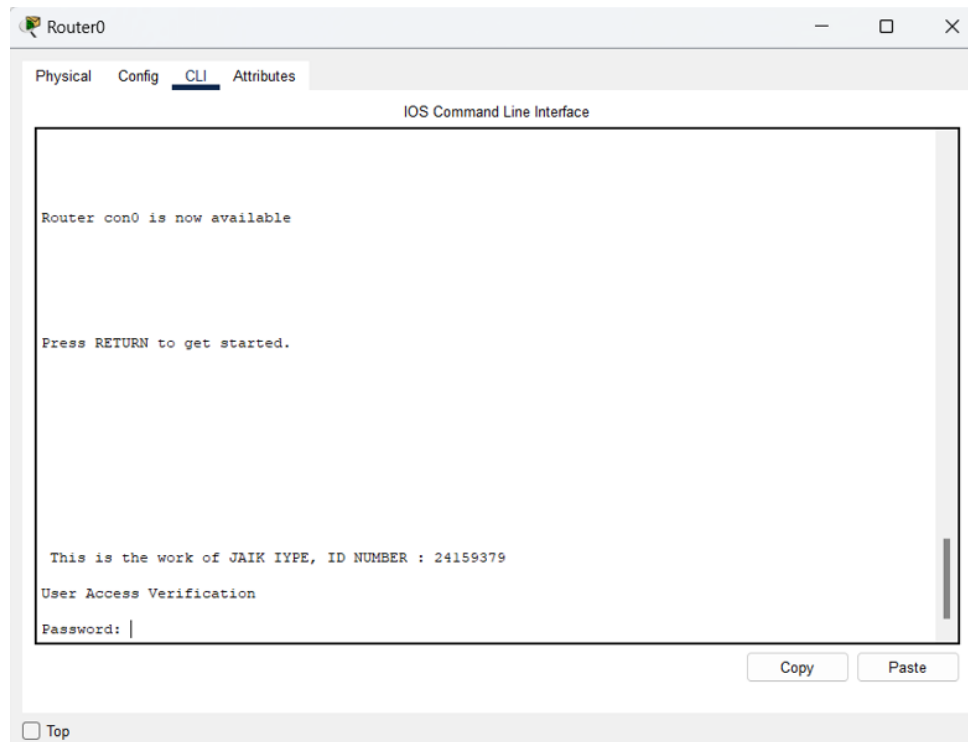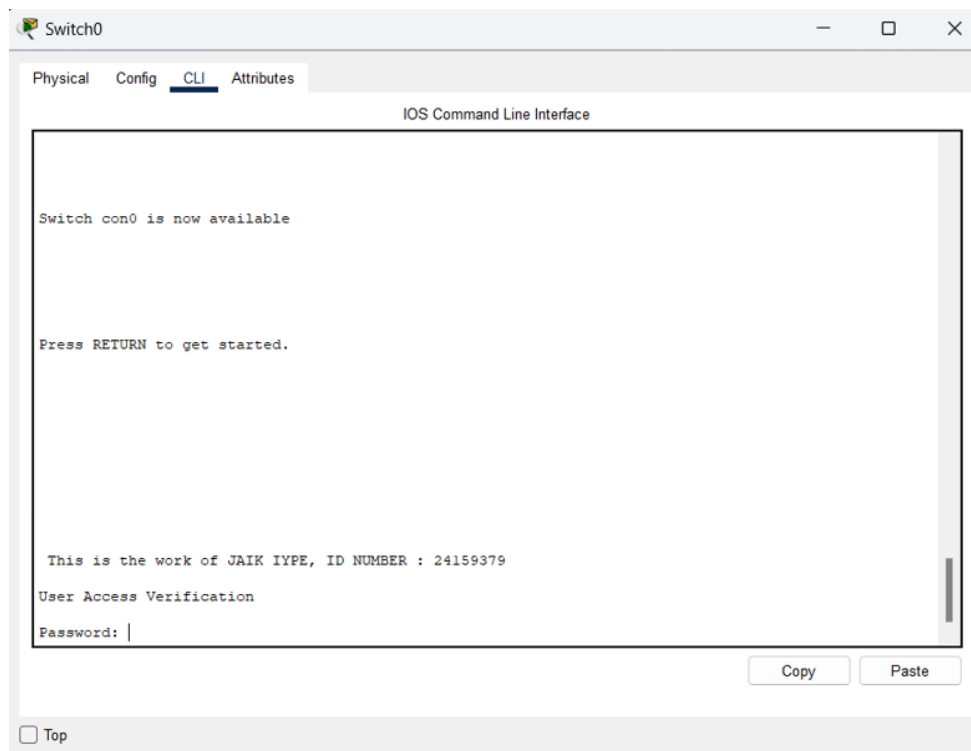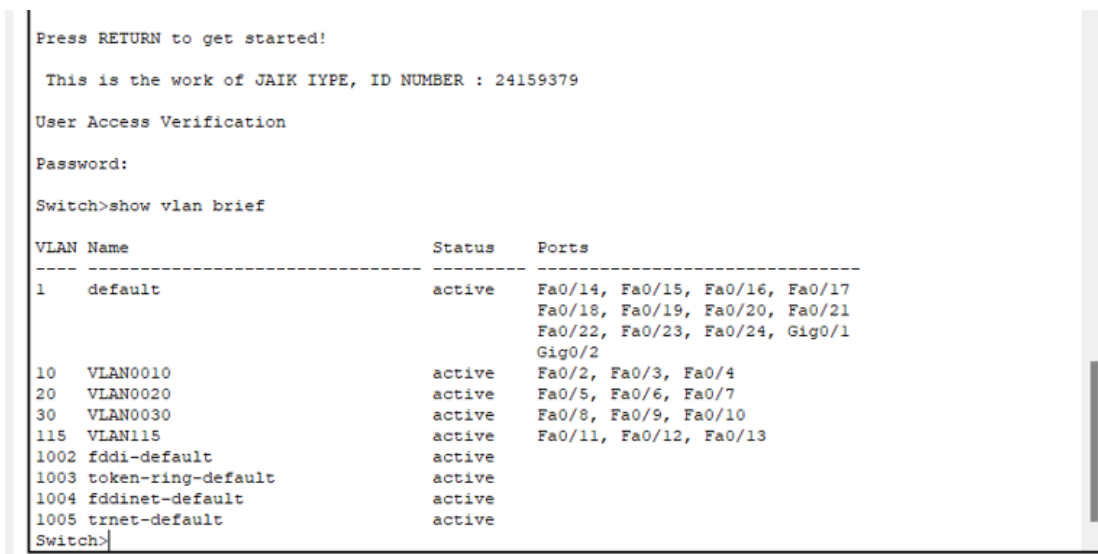
## Configuration of MOTD Message in Router



```
Router con0 is now available

Press RETURN to get started.

 This is the work of JAIK IYPE, ID NUMBER : 24159379

User Access Verification

Password: |
```

## Configuration of MOTD Message in Switch



## VLAN Configuration- Show VLAN Brief

**DHCP Configuration – Show Run | Section DHCP**

```
Router>enable
Password:
Router#show run | section dhcp
ip dhcp pool Admin-Pool
 network 192.168.1.0 255.255.255.192
 default-router 192.168.1.62
 dns-server 192.168.1.62
 domain-name Admin.com
ip dhcp pool Finance-Pool
 network 192.168.1.64 255.255.255.192
 default-router 192.168.1.126
 dns-server 192.168.1.126
 domain-name Finance.com
ip dhcp pool Reception-Pool
 network 192.168.1.128 255.255.255.192
 default-router 192.168.1.190
 dns-server 192.168.1.190
 domain-name Reception.com
ip dhcp pool LAN_POOL
 network 192.168.50.0 255.255.255.0
 default-router 192.168.50.1
 dns-server 192.168.50.1
Router#
```