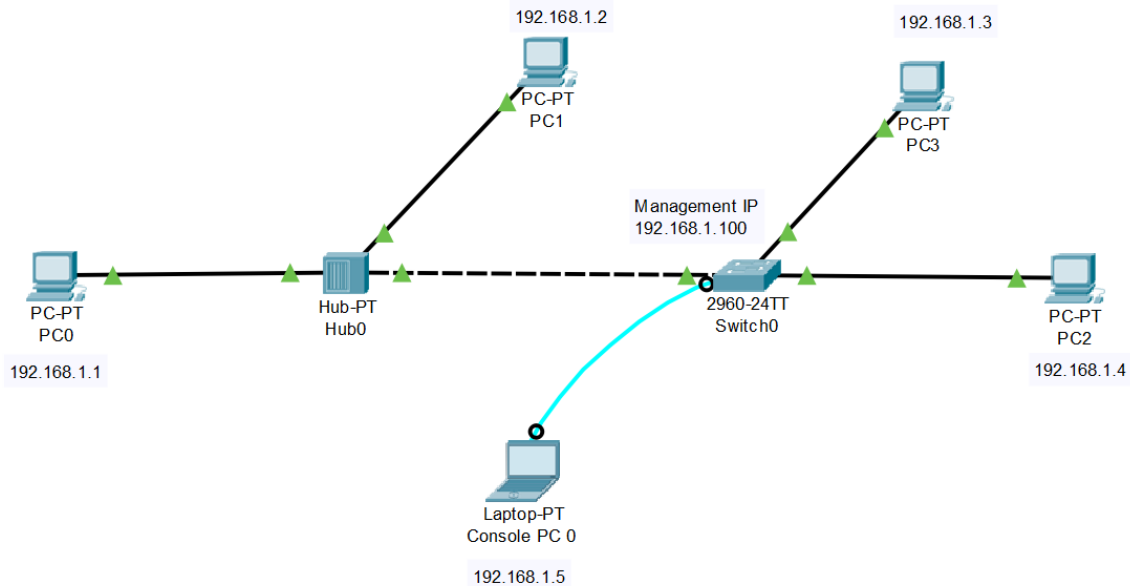


CCNA – 200 – 301

(Lab # 1)

Basic Device Configuration (Switch)



Configuring hostname of Switch0

```
Switch>enable
Switch#configure terminal
Switch(config)#hostname AXIOM
AXIOM(config)#exit
AXIOM#
```

Setting up logon banner of Switch0

```
AXIOM>enable
AXIOM#configure terminal
AXIOM(config)#banner motd %
Enter TEXT message. End with the character '%'.
*****
AXIOM COMPUTER EDUCATION
*****
%
AXIOM(config)#exit
AXIOM#
```

Configuring console password to switch

```
AXIOM>enable
AXIOM#configure terminal
AXIOM(config)#line console 0
AXIOM(config-line)#password 12345
AXIOM(config-line)#login
AXIOM(config-line)#exit
AXIOM(config)#exit
AXIOM#
```

Configuring vty password to switch

```
AXIOM>enable
AXIOM#configure terminal
AXIOM(config)#line console 0
AXIOM(config-line)#password 12345
AXIOM(config-line)#login
AXIOM(config-line)#exit
AXIOM(config)#exit
AXIOM#
```

Configuring enable (privileged mode) password to switch

```
AXIOM>enable
AXIOM#configure terminal
AXIOM(config)#enable password 12345
AXIOM(config)#exit
AXIOM#
```

Configuring enable (privileged mode) secret to switch

```
AXIOM>enable
AXIOM#configure terminal
AXIOM(config)#enable secret 123456
AXIOM(config)#exit
AXIOM#
```

Encrypt the enable and console passwords

```
AXIOM>enable
AXIOM#configure terminal
AXIOM(config)#service password-encryption
AXIOM(config)#exit
AXIOM#
```

Save and verify configuration file to NVRAM

```
AXIOM>enable
AXIOM#copy running-config startup-config
AXIOM#
```

Erase NVRAM/Start-up configuration

```
AXIOM>enable
AXIOM#erase startup-config
```

Or

```
AXIOM>enable
AXIOM#write erase
```

Disabling login on vty

If you want to allow only one virtual connection (1 vty) i.e. telnetting or SSH, while making other 15 vty lines disabled, you can use the configuration below. But if we provide password to disabled lines, they will be enabled and secured.

```
AXIOM>enable
AXIOM#configure terminal
AXIOM(config)#line vty 0
AXIOM(config-line)#password 12345
AXIOM(config-line)#login
AXIOM(config-line)#exit
AXIOM(config)#line vty 1 15
AXIOM(config-line)#no password
AXIOM(config-line)#login
AXIOM(config-line)#exit
AXIOM(config)#exit
AXIOM#
```

Setting management IP to switch for telnetting/SSH

```
AXIOM>enable
AXIOM#configure terminal
AXIOM(config)#interface vlan 1
AXIOM(config-if)#ip address 192.168.1.100 255.255.255.0
AXIOM(config-if)#no shutdown
AXIOM(config-if)#exit
AXIOM(config)#exit
AXIOM#
```

Configuring SSH to switch

We need to set following for configuring SSH on switch

1. Hostname
2. Domain Name
3. Secure Key
4. SSH version 2
5. Create Users
6. Allow SSH

```
Switch>enable
Switch#configure terminal
Switch(config)#hostname AXIOM
AXIOM(config)#ip domain-name education.com.pk
AXIOM(config)#crypto key generate rsa
```

How many bits in the modulus [512]: 1024

```
AXIOM(config)#ip ssh version 2
AXIOM(config)#username gulraiz password 12345
AXIOM(config)#username husnain password 12345
AXIOM(config)#line vty 0 15
AXIOM(config-line)#login local
AXIOM(config-line)#transport input ssh
AXIOM(config-line)#exit
AXIOM(config)#exit
AXIOM#
```

Other useful show commands

```
Switch>enable  
AXIOM#show mac-address-table dynamic  
AXIOM#show running-config  
AXIOM#show startup-config  
AXIOM#show interfaces status  
AXIOM#show ip interface brief
```