

EXPERIMENT-4

Aim:

To configure the hostnames and IP address on two Cisco Internetwork Operating System (IOS) and verify the connectivity between the two PC and devices.

Software Used:

Cisco Packet Tracer

Requirements

- = Use a console connection to access each switch.
- = Name Class-A and Class-B switches.
- = Use the xAw6k password for all lines.
- = Use the 6EBUp secret password.
- = Encrypt all clear text passwords.
- = Configure an appropriate message-of-the-day (MOTD) banner.
- = Configure addressing for all devices according to the Addressing Table.
- = Save your configurations.
- = Verify connectivity between all devices.

Procedure:

The following Addressing table is used to configure the IP address and the subnet mask of the VLAN interface and the NIC interface.

Addressing Table

Device	Interface	IP Address	Subnet Mask
Class-A	VLAN 1	172.16.5.35	255.255.255.0
Class-B	VLAN 1	172.16.5.40	255.255.255.0
Student-1	NIC	172.16.5.50	255.255.255.0
Student-2	NIC	172.16.5.60	255.255.255.0

Class A:

```
Class-A>enable
Password:
Class-A#show run
Building configuration...

Current configuration : 1215 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Class-A
!
!
enable secret 5 $1$mERr$uj9Jma9yMOo4m80CGAhoP1
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
```

Class B:

```
Class-B>enable
Password:
Class-B#show run
Building configuration...

Current configuration : 1215 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Class-B
!
!
enable secret 5 $1$mERr$uj9Jma9yMOo4m80CGAhoP1
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
```

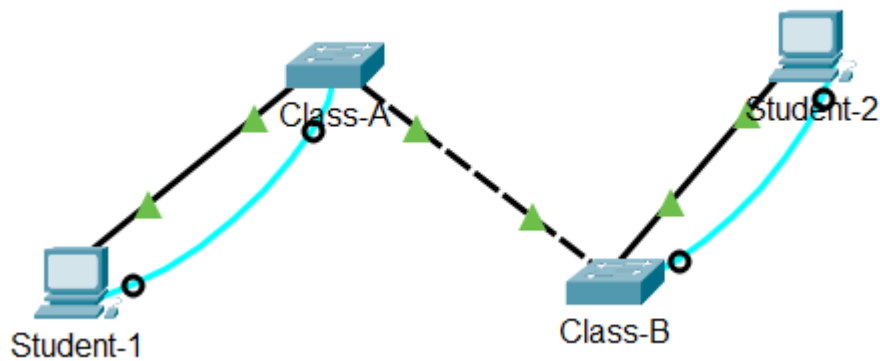
Student 1:

IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	<input type="text" value="172.16.5.50"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Default Gateway	<input type="text" value="0.0.0.0"/>
DNS Server	<input type="text" value="0.0.0.0"/>
IPv6 Configuration	
<input type="radio"/> Automatic	<input checked="" type="radio"/> Static
IPv6 Address	<input type="text"/> / <input type="text"/>
Link Local Address	<input type="text"/>
Default Gateway	<input type="text"/>
DNS Server	<input type="text"/>
802.1X	

Student 2:

IP Configuration		X
Interface	FastEthernet0	
IP Configuration		
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static	
IPv4 Address	<input type="text" value="172.16.5.60"/>	
Subnet Mask	<input type="text" value="255.255.255.0"/>	
Default Gateway	<input type="text" value="0.0.0.0"/>	
DNS Server	<input type="text" value="0.0.0.0"/>	
IPv6 Configuration		
<input type="radio"/> Automatic	<input checked="" type="radio"/> Static	
IPv6 Address	<input type="text"/> / <input type="text"/>	
Link Local Address	<input type="text"/>	
Default Gateway	<input type="text"/>	
DNS Server	<input type="text"/>	
802.1X		
<input type="checkbox"/> Use 802.1X Security		
Authentication	MD5	
Username	<input type="text"/>	
Password	<input type="text"/>	

Network:



Network Test:

```
C:\>ping 172.16.5.60

Pinging 172.16.5.60 with 32 bytes of data:

Reply from 172.16.5.60: bytes=32 time<1ms TTL=128
Reply from 172.16.5.60: bytes=32 time<1ms TTL=128
Reply from 172.16.5.60: bytes=32 time<1ms TTL=128
Reply from 172.16.5.60: bytes=32 time<1ms TTL=128

Ping statistics for 172.16.5.60:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Conclusion:

The switch was configured successfully according to the ARP table.