**Logo

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*Independent University Bangladesh (IUB)* **Course ID: CSE316L  
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Section: 04  
  
  
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Lab Report 6**

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                                      Submission Date: 23rd August 2021**

LAN SWITCHING (PART 2)

**OBJECT:**

1. Place two interfaces on the switch A in VLAN 2 and VLAN 3 and two interfaces in VLAN 2 and VLAN 3 on the other switch B.
2. Configure the routers’ interfaces with the IP addresses as in Figure
3. Ping across the LAN on VLAN 2.
4. Ping across the LAN on VLAN 3.

Diagram

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Instructions:

1. To configure the IP address on the routers, do the following:

**Router A:** Router>;enable Router#

Router#configure terminal

Router(config)#hostname RouterA RouterA(config)#interface fastethernet 0/0 RouterA(config-if)#ip address 192.168.1.1 255.255.255.0 RouterA(config-if)#no shut

RouterA(config-if)#^Z RouterA#

## Router B:

Router>;enable Router#config t

Router(config)#hostname RouterB RouterB(config)#interface fastethernet 0/0 RouterB(config-if)#ip address 192.168.1.2 255.255.255.0 RouterB(config-if)#no shut

RouterB(config-if)#^Z RouterB#

## Router C:

Router>;enable Router#config t

Router(config)#hostname RouterC RouterC(config)#interface fastethernet 0/0 RouterC(config-if)#ip address 192.168.1.3 255.255.255.0 RouterC(config-if)#no shut

RouterC(config-if)#^Z RouterC#

## Router D:

Router>;enable Router#config t

Router(config)#hostname RouterD RouterD(config)#interface fastethernet 0/0

RouterD(config-if)#ip address 192.168.1.4 255.255.255.0 RouterD(config-if)#no shut

RouterD(config-if)#^Z RouterD#

If you have plugged directly into the switch, you will be able to ping from router A to router B, router C and router D. This is because they are all in VLAN 1, by default. If you have just booted up the switch, it may take a few moments for the database to be built.

RouterB#ping 192.168.1.1

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.1, timeout is 2 seconds:

.....

Success rate is 0 percent (0/5) RouterB#ping 192.168.1.1

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.1, timeout is 2 seconds:

..!!!

Success rate is 60 percent (3/5), round-trip min/avg/max = 4/4/4 ms RouterB#ping 192.168.1.3

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.3, timeout is 2 seconds:

!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4 ms RouterB#

1. Configure VLAN 2 on the IOS switches.

**SwitchB:** Switch&gt; Switch>enable Switch#config t

Enter configuration commands, one per line. End with CNTL/Z. Switch(config)#hostname SwitchB

SwitchB(config)#vlan 2 SwitchB(config-vlan)#name Cisco SwitchB(config-vlan)#^z **SwitchA**:

Switch&gt; Switch>;enable Switch#config t

Enter configuration commands, one per line. End with CNTL/Z. Switch(config)#hostname SwitchA

SwitchA(config)#vlan 2 SwitchA(config-vlan)#name Cisco SwitchA(config-vlan)#^z

1. Configure VLAN 3 on the IOS switches.

## SwitchB:

Switch&gt; Switch>;enable Switch#config t

Enter configuration commands, one per line. End with CNTL/Z. SwitchB(config)#vlan 3

SwitchB(config-vlan)#name Cisco1 SwitchB(config-vlan)#^z

## SwitchA:

Switch&gt; Switch>;enable Switch#config t

Enter configuration commands, one per line. End with CNTL/Z. SwitchA(config)#vlan 3

SwitchA(config-vlan)#name Cisco1 SwitchA(config-vlan)#^z

1. Put the relevant ports in VLAN 2 on each switch. SwitchB#config t

SwitchB(config)#interface fast 0/3 SwitchB(config-if)#switchport access vlan 2 SwitchB(config-vlan)#^z

SwitchB#

===

SwitchA#config t

SwitchA(config-vlan)#int fast 0/2 SwitchA(config-if)#switchport access vlan 2 SwitchA(config-if)#^z

SwitchA#

1. Put the relevant ports in VLAN 3 on each switch. SwitchB#config t

SwitchB(config)#interface fast 0/2 SwitchB(config-if)#switchport access vlan 3 SwitchB(config-vlan)#^z

SwitchB#

===

SwitchA#config t

SwitchA(config-vlan)#int fast 0/1 SwitchA(config-if)#switchport access vlan 3 SwitchA(config-if)#^z

SwitchA#

1. Turn trunking on-on the interfaces between the switches. SwitchA(config-if)#interface fastethernet 0/3

SwitchA(config-if)#switchport mode trunk SwitchA(config)#exit

SwitchA #

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SwitchB(config-if)#interface fastethernet 0/1 SwitchB(config-if)#switchport mode trunk SwitchB(config)#exit

SwitchB#

1. Ping from router C to router A. RouterA>en

RouterA#ping 192.168.1.2

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.2, timeout is 2 seconds:

.....

Success rate is 0 percent (0/5)

RouterA#ping 192.168.1.3

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.3, timeout is 2 seconds:

.....

Success rate is 0 percent (0/5)

RouterA#ping 192.168.1.4

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.4, timeout is 2 seconds:

!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/2 ms RouterA#

7. Ping from router D to router B.

RouterB>en RouterB#ping 192.168.1.4

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.4, timeout is 2 seconds:

.....

Success rate is 0 percent (0/5)

RouterB#ping 192.168.1.3

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.3, timeout is 2 seconds:

.....

Success rate is 0 percent (0/5)

RouterB#ping 192.168.1.1

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 192.168.1.1, timeout is 2 seconds:

.....

Success rate is 0 percent (0/5) RouterB#