

LAB 1

Create a topology and simulate sending a simple PDU from source to destination using hub and switch as connecting devices and demonstrate ping messages.

OBSERVATION:

Lab-1

DATE: 15/6/23

Aim:

① Create a topology & simulate a simple PDU from source to destination using a simple hub and switch as connecting devices and demonstrate ping message.

```

graph TD
    Hub[Hub-PT] --- PC0[PC-PT PC0]
    Hub --- PC1[PC-PT PC1]
    Hub --- PC2[PC-PT PC2]
    Switch[Switch-PT] --- PC3[PC-PT PC3]
    Switch --- PC4[PC-PT PC4]
    Hub -.- Switch
  
```

Procedure:

- First step is to establish a connection three PCs through a Hub-PT
- Next a switch is connected to three more PCs
- ~~Every~~ All the PCs are configured by giving IP addresses 10.0.0.1, 10.0.0.2, ...
- The switch and hub are also connected
- To see the process of how packet are transferred, give sample PDU to both PC0 & PC1 and then run simulation.
- To check whether connections is successful or not.
- Ping PC 1 from
- The source PC is pinged through the

Output:

Ping

Reply

Reply

Reply

Reply

Ping

Pa

Approx

Result:

Pa

Par

Port

Start

type PC
simple hub
ice and

Switch - PT
Switch 0

PC - PT
PC 4

PC - PT
PC 5

three
generic

more

by giving

needed

are

both PC

equal or

- the destination PC
- the destination PC, by going to command prompt, then run ping followed by IP address of PC1.

Output:

Pinging 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2: bytes=32 time=0ms TTL=128

Reply from 10.0.0.2: bytes=32 time=0ms TTL=128

Reply from 10.0.0.2: bytes=32 time=0ms TTL=128

Reply from 10.0.0.2: bytes=32 time=0ms TTL=128

Ping statistics for 10.0.0.2:

Packets: sent=4, Received=4, Lost=0 (0% loss)

Approximate round trip times in milliseconds:

Minimum=0ms, Maximum=0ms, Average=0ms

Result: switch

Part - 1

IP address

Port Ethernet 0

10.0.0.4

PC1

Port - 2

Port - Ethernet 0

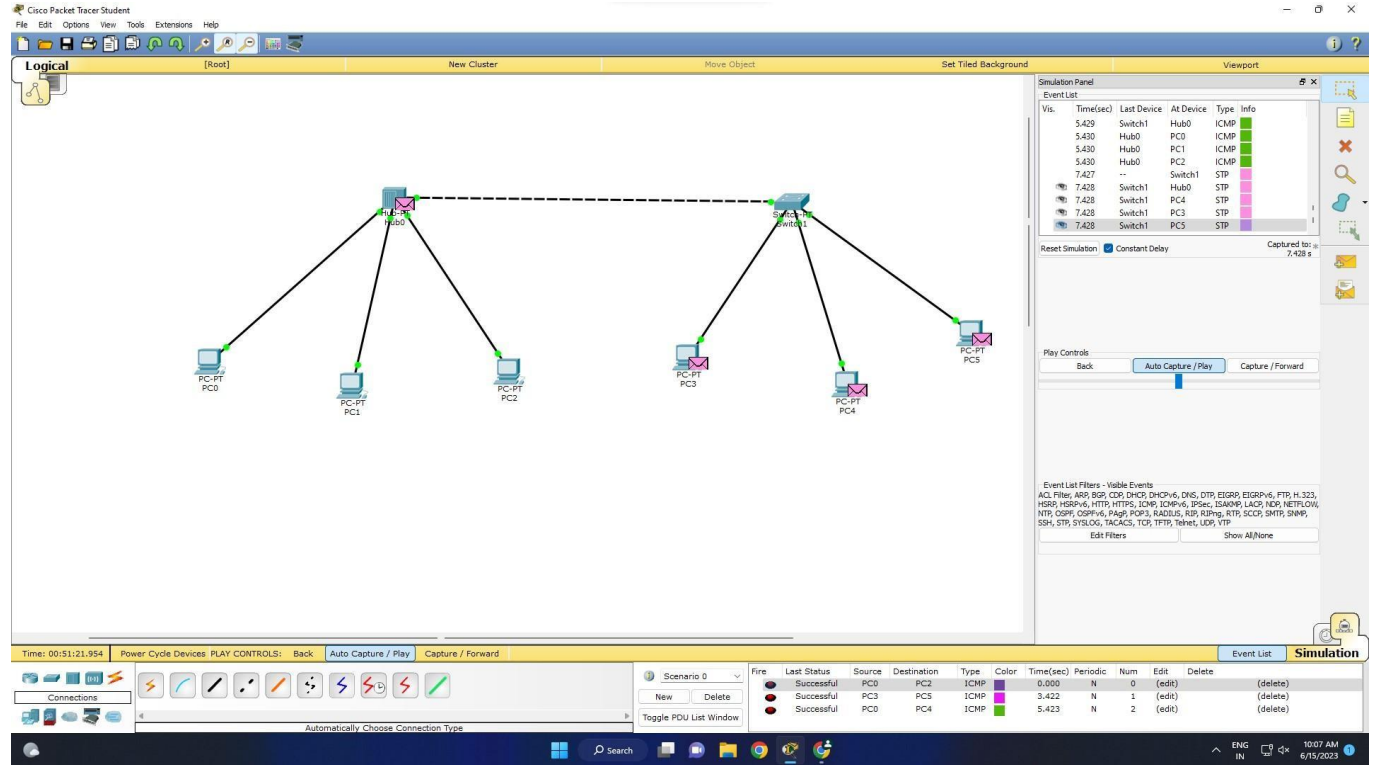
10.0.0.2/0

PC2

10.0.0.1/0

PC3

15/6/2023



PC

Physical Config Desktop Custom Interface

Command Prompt

Packet Tracer PC Command Line 1.0

PC>ping 192.160.1.6

Pinging 192.160.1.6 with 32 bytes of data:

```

Reply from 192.160.1.6: bytes=32 time=0ms TTL=128
Reply from 192.160.1.6: bytes=32 time=0ms TTL=128
Reply from 192.160.1.6: bytes=32 time=0ms TTL=128
Reply from 192.160.1.6: bytes=32 time=0ms TTL=128

```

Ding statistics for 192.160.1.6:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 192.160.1.6

Pinging 192.160.1.6 with 32 bytes of data:

```

Request timed out.
Request timed out.
Request timed out.
Request timed out.

```

Ding statistics for 192.160.1.6:

Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

PC>192.160.1.2

Invalid Command.

PC>ping 192.160.1.2

Pinging 192.160.1.2 with 32 bytes of data:

```

Reply from 192.160.1.2: bytes=32 time=0ms TTL=128
Reply from 192.160.1.2: bytes=32 time=0ms TTL=128
Reply from 192.160.1.2: bytes=32 time=0ms TTL=128
Reply from 192.160.1.2: bytes=32 time=0ms TTL=128

```

Ding statistics for 192.160.1.2:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>

10:15 AM 6/15/2023

