

Networks

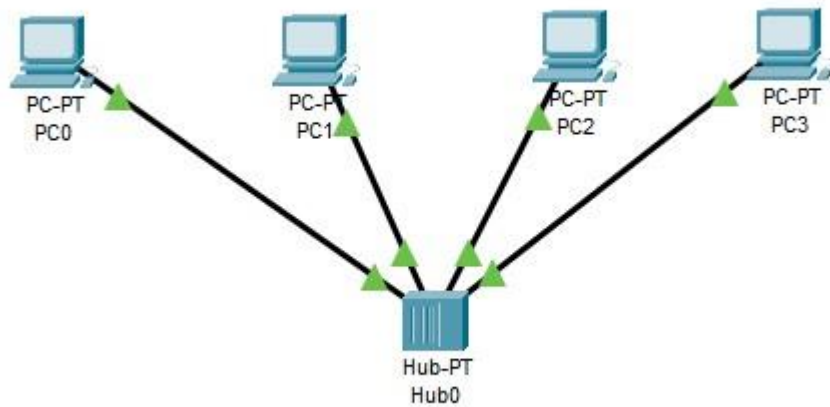
Lab 3

Name: مصطفى محمد رأفت عبد اللطيف

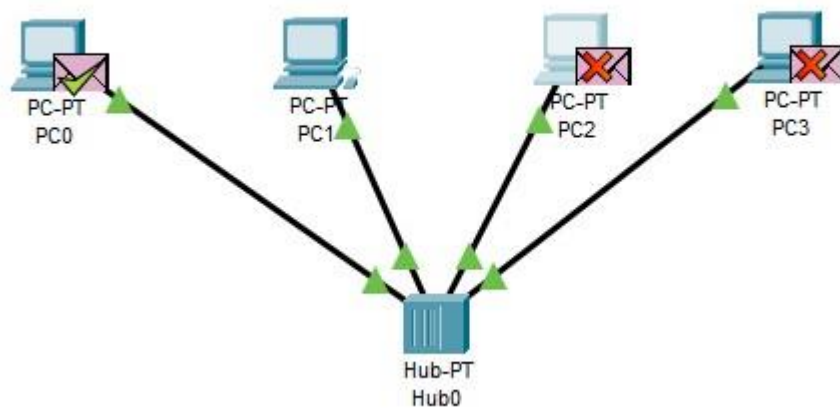
ID:20011947

Section : 1

Part I:



Task 1: PC0 pinging PC1



The screenshot shows a network simulation interface. The main window displays the network topology with four PC-PT devices (PC0, PC1, PC2, PC3) connected to a central Hub-PT (Hub0). The PC0 and PC2 icons have a red 'X' over them, indicating a failed ping attempt. The bottom of the interface shows a timeline and a list of events.

Time: 01:15:20.060 PLAY CONTROLS

Simulation Panel

Vis.	Time(sec)	Last Device
	0.005	PC0
	0.006	Hub0
	0.006	Hub0
	0.006	Hub0
	0.007	PC1
Visible	0.008	Hub0
Visible	0.008	Hub0
Visible	0.008	Hub0

Reset Simulation Constant Delay Captured to: 3903.769 s

Play Controls

Event List Filters - Visible Events

ARP, ICMP

Edit Filters Show All/None

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit

Successful	PC0	PC1	ICMP	Green	0.000	N	0	(edit)
------------	-----	-----	------	-------	-------	---	---	--------

PDU OSI Model

At Device: PC1
Source: PC0
Destination: PC1

In Layers

Layer7
Layer6
Layer5
Layer4
Layer 3: IP Header Src. IP: 192.168.1.10, Dest. IP: 192.168.1.11 ICMP Message Type: 8
Layer 2: Ethernet II Header 0002.4A68.3C59 >> 0001.9721.516E
Layer 1: Port FastEthernet0

Out Layers

Layer7
Layer6
Layer5
Layer4
Layer 3: IP Header Src. IP: 192.168.1.11, Dest. IP: 192.168.1.10 ICMP Message Type: 0
Layer 2: Ethernet II Header 0001.9721.516E >> 0002.4A68.3C59
Layer 1: Port(s): FastEthernet0

1. FastEthernet0 receives the frame.

[Challenge Me](#)[<< Previous Layer](#)[Next Layer >>](#)

PDU outbound:

PDU Formats

EthernetII									
0 4 8 Bytes									
PREAMBLE: 101010..10					DEST ADDR: 0002.4A68.3C59				
SRC ADDR: 0001.9721.516E			TYP: E:0x		DATA (VARIABLE LENGTH)			FCS: 0x00000000	

IP									
0 4 8 16 20 24 Bits									
VER: 4		IHL: 5		DSCP: 0x00			TL: 28		
ID: 0x002c						FLA: 0		FRAG OFFSET: 0x000	
TTL: 128			PRO: 0x01			CHKSUM			
SRC IP: 192.168.1.11									
DST IP: 192.168.1.10									
DATA (VARIABLE LENGTH)									

ICMP									
0 8 16 Bits									
TYPE: 0x00				CODE: 0x00			CHECKSUM		

Pinging:

```

C:\> ping 192.168.1.11

Pinging 192.168.1.11 with 32 bytes of data:

Reply from 192.168.1.11: bytes=32 time=30ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 30ms, Average = 7ms
  
```

Task 2:

arp table at pc1

```
C:\> arp -a
Internet Address      Physical Address      Type
192.168.1.11          0001.9721.516e        dynamic
```

arp table at pc0

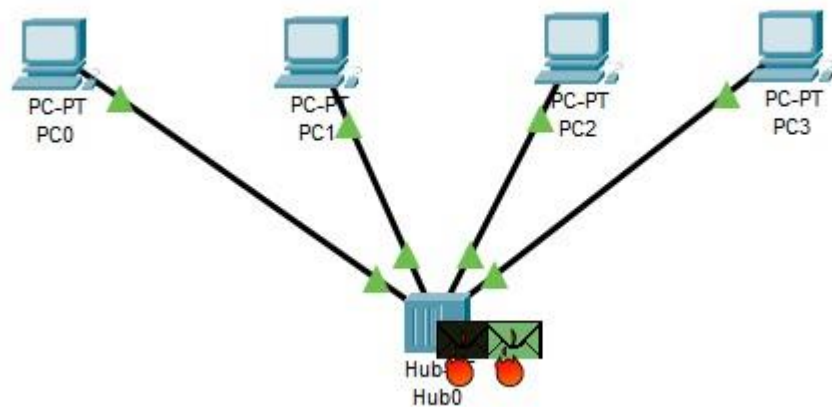
```
C:\>arp -a
Internet Address      Physical Address      Type
192.168.1.10          0002.4a68.3c59        dynamic
```

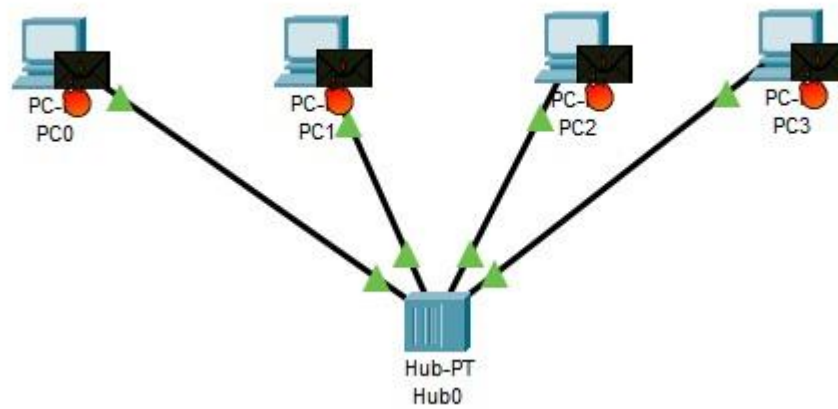
arp table at pc2,3

```
C:\>arp -a
No ARP Entries Found
```

Task 3 :

To view packet collision and jam signal





Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit
	Failed	PC0	PC1	ICMP		0.000	N	0	(edit)
	Failed	PC2	PC3	ICMP		0.000	N	1	(edit)