

# Simulation Panel

## Event List

Vis.	Time(sec)	Last Device	At Device	Type
	523 393	-	PC1	
	523 394	PC1	Switch1	
	523 395	Switch1	Switch0	
	523 395	Switch1	Switch3	
	523 396	Switch0	Switch2	
	523 396	Switch0	PC0	
	523 396	Switch3	Switch2	
	523 396	Switch3	PC3	
	523 397	Switch2	PC2	
	523 397	PC3	Switch3	
	523 398	Switch3	Switch1	
<input checked="" type="checkbox"/>	523 399	Switch1	PC1	

Reset Simulation ☒ Constant Delay Captured to: 693.588 s

## Play Controls



## Event List Filters - Visible Events

ICMP

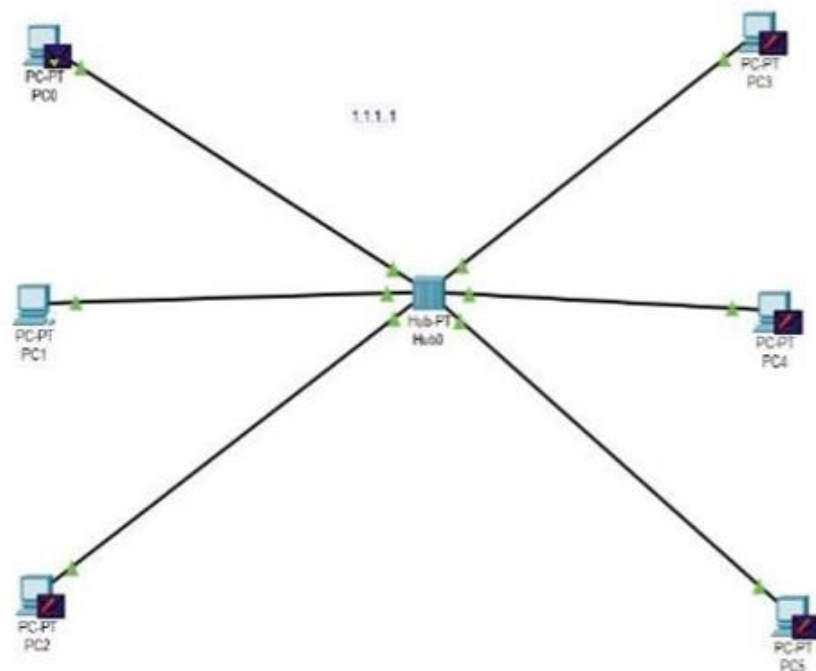
Edit Filters

Show All/None

Time: 00:28:48.241

PLAY CONTROLS





# Simulation Panel

## Event List

Vis.	Time(sec)	Last Device
	0.000	-
	0.004	-
	0.005	PC0
	0.006	Hub0
	0.006	Hub0
	0.006	Hub0
	0.006	Hub0
	0.007	PC1
	0.008	Hub0
	0.008	Hub0
	0.008	Hub0
	0.008	Hub0
	0.008	Hub0

Reset Simulation ☒ Constant Delay Captured to: 0.008 s

## Play Controls



Event List Filters - Visible Events  
ICMP

Edit Filters

Show All/None

Event List

Realtime

Simulation

Time: 00:00:14.548 PLAY CONTROLS



Scenario 0

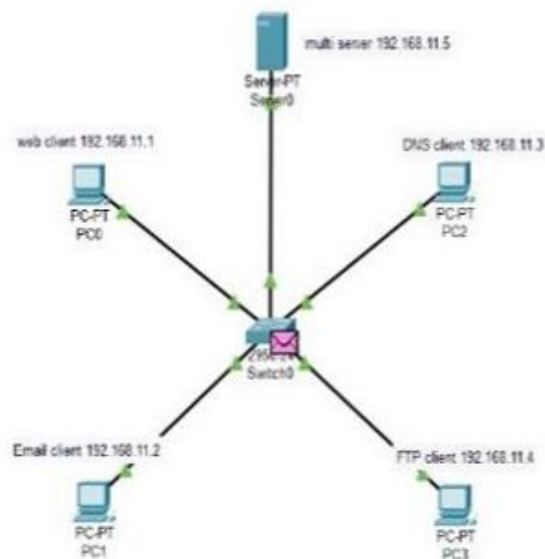
New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC1	ICMP		0.000	N	0	(edit)	(delete)

(Select a Device to Drag and Drop to the Workspace)



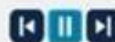
## Simulation Panel

## Event List

Vis	Time(sec)	Last Device
	9.995	—
	9.995	Switch0
	9.995	Switch0
	9.995	Switch0
	9.995	Switch0
	9.995	Switch0
	9.995	—
	9.995	Switch0
	9.995	Switch0
	9.995	Switch0
	9.995	Switch0
	9.995	Switch0
	11.992	—

Reset Simulation ☒ Constant Delay Capturing...

## Play Controls



## Event List Filters - Visible Events

ACL Filter, Bluetooth, CAPWAP, CDP, DHCPv6, DTP, EAPOL, EIGRPv6, FTP, H.323, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIPv2, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Event List

Realtime

Simulation

Time: 00:00:46.482 PLAY CONTROLS



(Select a Device to Drag and Drop to the Workspace)

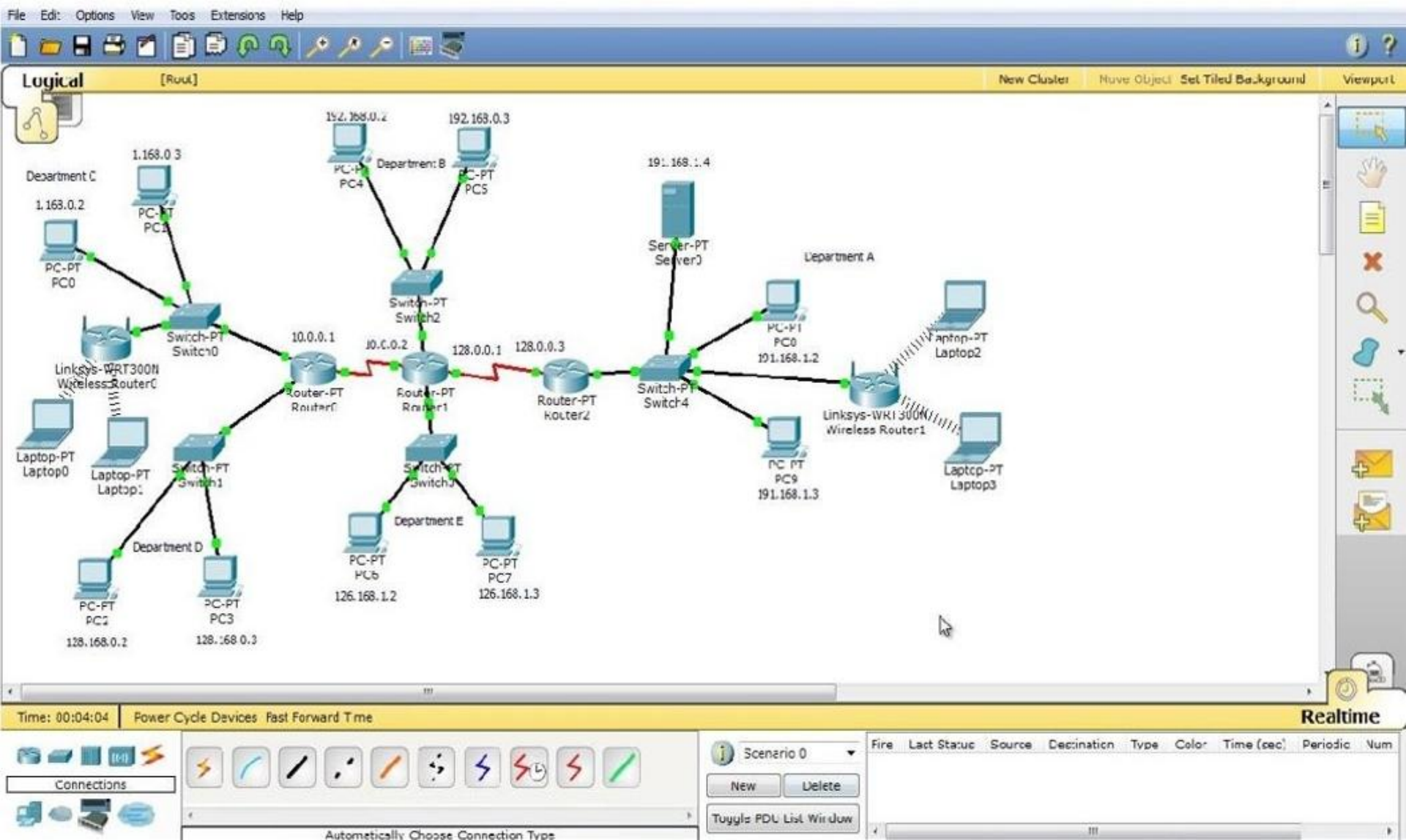
Scenario 6

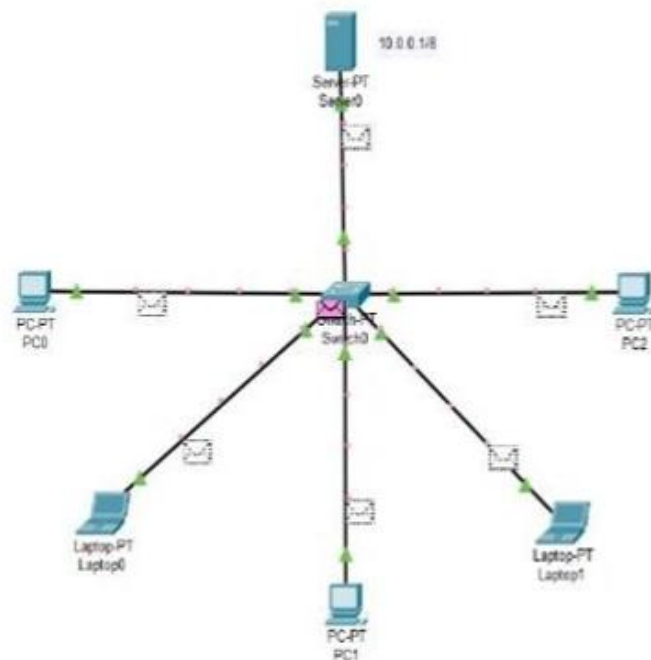
New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC3	ICMP		0.000	N	0	(edit)	(delete)





# Simulation Panel

## Event List

Vis	Time(sec)	Last Device
	0.004	Switch0
	0.004	-
	0.005	PC0
	0.006	Switch0
	0.007	Laptop0
	0.008	Switch0
	1.998	-
	1.999	Switch0
	1.999	Switch0
	1.999	Switch0
	1.999	Switch0
	1.999	Switch0
	1.999	Switch0

Reset Simulation Constant Delay Capturing

## Play Controls



## Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PayP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Event List

Realtime

Simulation

Time: 00:00:36.510 PLAY CONTROLS



Scenario 6

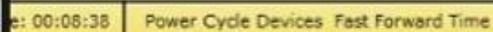
New Delete

Toggle POI List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	Laptop0	ICMP		0.000	N	0	(edit)	(delete)

(Select a Device to Drag and Drop to the Workspace)

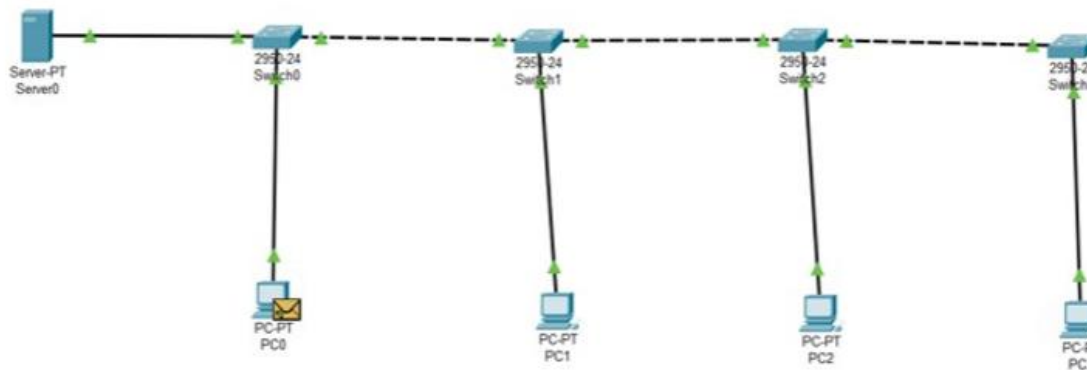






Logical Physical x 800, y 25

Physical Mode (Shift+P)



Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	PC0	
	0.001	PC0	Switch0	
	0.002	Switch0	Switch1	
	0.003	Switch1	PC1	
	0.004	PC1	Switch1	
	0.005	Switch1	Switch0	
<input checked="" type="checkbox"/>	0.006	Switch0	PC0	

Reset Simulation ☒ Constant Delay Capturing...

Play Controls



Event List Filters - Visible Events

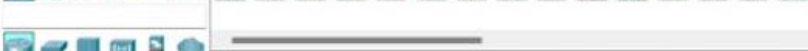
ICMP

Edit Filters

Show All/None

Time: 00:58:07.604

PLAY CONTROLS



(Select a Device to Drag and Drop to the Workspace)

Scenario 0

New

Delete

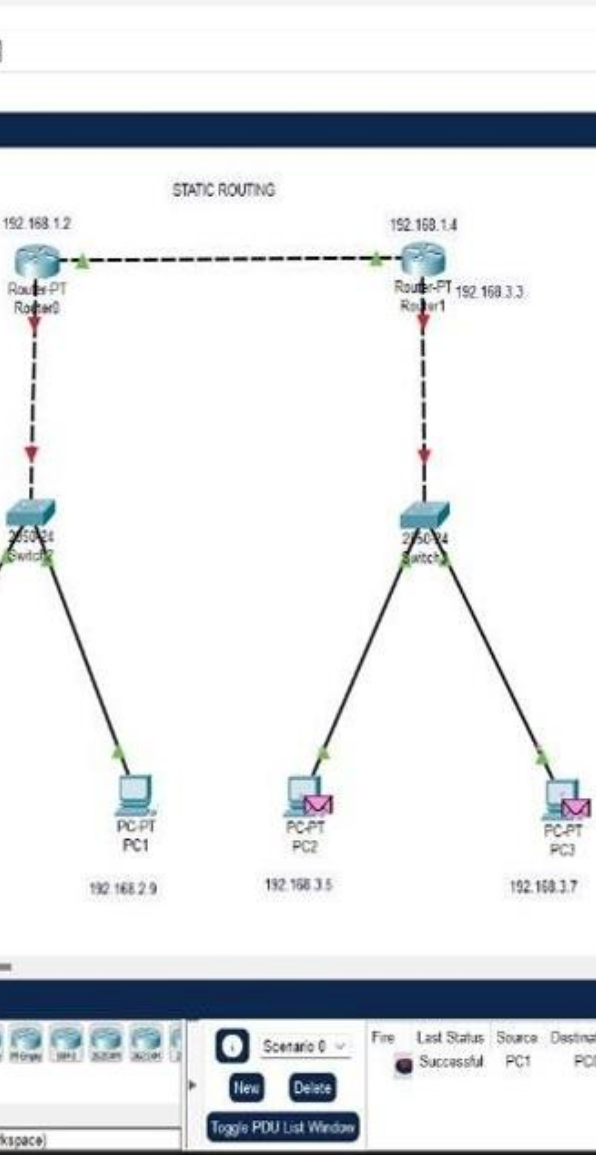
Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
<input checked="" type="checkbox"/>	Successful	PC0	PC1	ICMP		0.000	N	0	(edit)	(delete)

Event List

Realtime

Simulation



Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	--	
0.004	--	
0.005	PC1	
0.006	Switch2	
0.007	PC0	
0.008	Switch2	
0.009	--	
0.010	--	
0.010	Switch3	
0.010	Switch3	
0.010	--	
0.011	Switch3	
0.011	Switch3	

Reset Simulation Constant Delay Capturing

Play Controls

Event List Filters - Visible Events

ACL Filter, Bluetooth, CAPWAP, CDP, DHCPv6, DTP, EAPOL, EIGRPv6, FTP, H.323, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time 00:00:50.503 PLAY CONTROLS

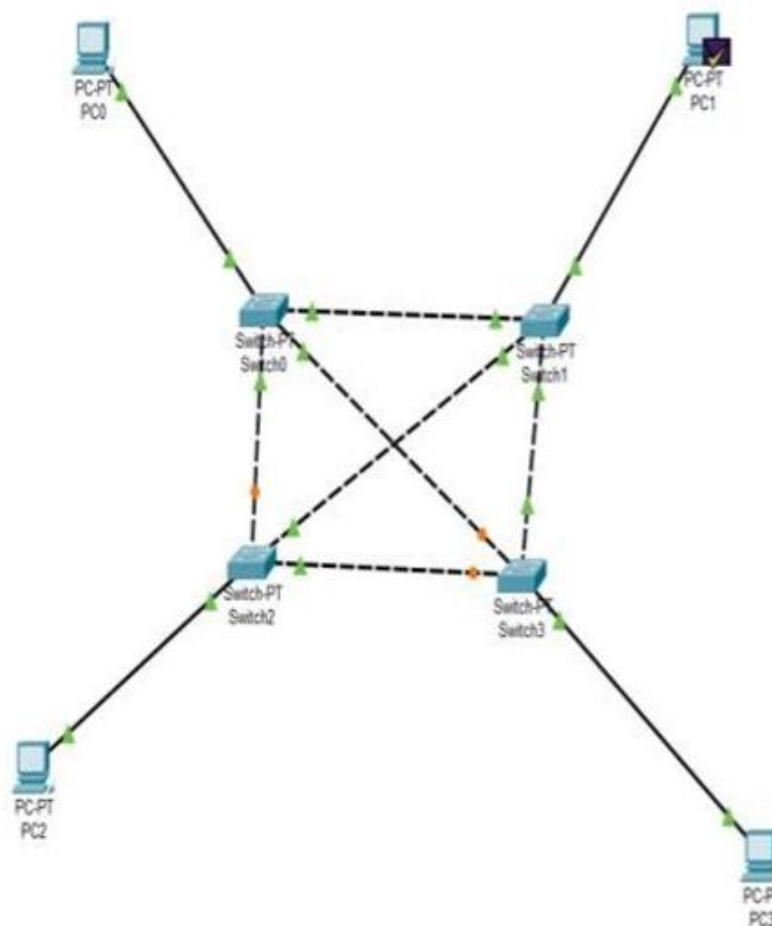
Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		PC1	PC0	ICMP	Green	0.000	N	0	(edit)	(delete)



Simulation Panel

## Event List

Vis	Time(sec)	Last Device	At Device	Type
	523.393	-	PC1	
	523.394	PC1	Switch1	
	523.395	Switch1	Switch0	
	523.395	Switch1	Switch3	
	523.395	Switch1	Switch2	
	523.395	Switch0	Switch2	
	523.395	Switch0	PC0	
	523.395	Switch0	Switch3	
	523.395	Switch3	PC3	
	523.395	Switch2	Switch3	
	523.395	Switch2	PC2	
	523.397	PC3	Switch3	
	523.398	Switch3	Switch1	
	523.399	Switch1	PC1	

Reset Simulation ☒ Constant Delay Capturing...

## Play Controls



Play (Alt + P)

## Event List Filters - Visible Events

ICMP

Edit Filters

Show All/None

Event List Realtime Simulation

Time(sec)	Periodic	Num	Edit	Delete
623.393	N	0	(edit)	(delete)

① **Сравните** и

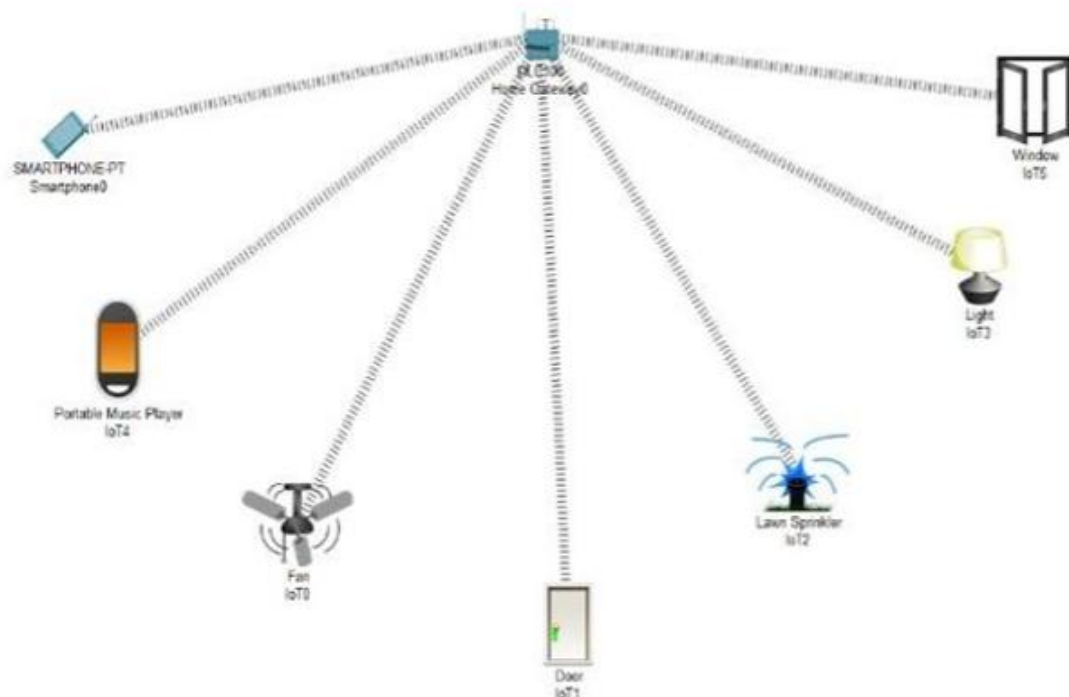
New Delete

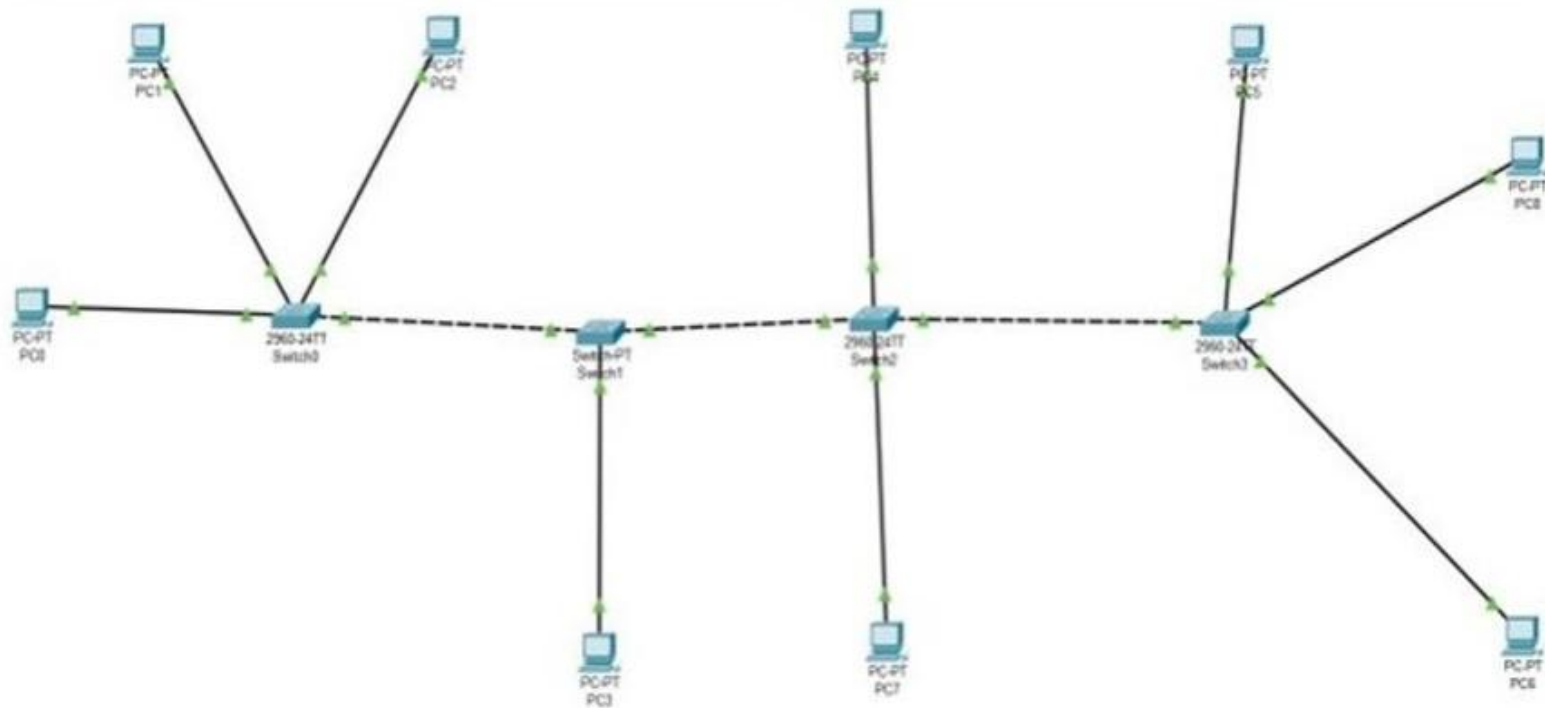
Toggle PDU List Window

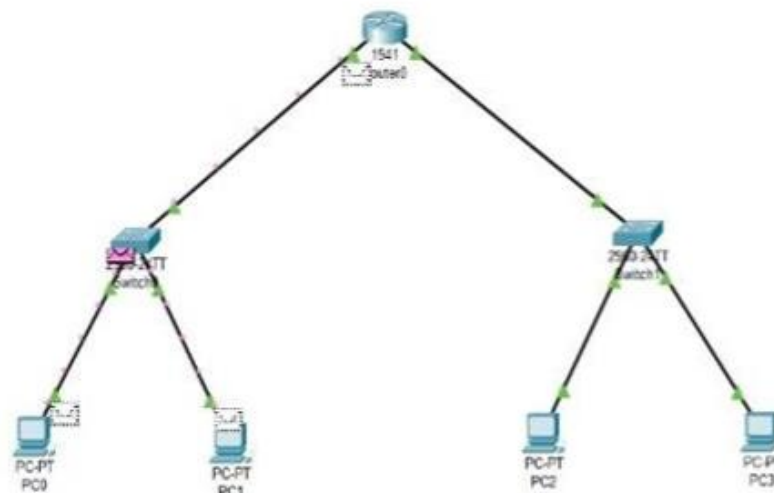
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC1	PC3	ICMP		523.393	N	0	(edit)	(delete)

Time: 02:24:21.863  PLAY CONTROLS   

(Select a Device to Drag and Drop to the Workspace)







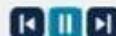
## Simulation Panel

## Event List

Vis.	Time(sec)	Last Device
	0.000	—
	0.004	—
	0.005	PC1
	0.006	Switch0
	0.007	PC0
	0.008	Switch0
	1.589	—
	1.990	Switch0
	1.990	Switch0
	1.990	Switch0

 Reset Simulation ☒ Constant Delay ☐ Capturing ☐

## Play Controls



## Event List Filters - Visible Events

ACL Filter, Bluetooth, CAPWAP, CDP, DHCPv6, OTP, EAPOL, EIGRPv6, FTP, H.323, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Event List

Realtime

Simulation

Time: 00:01:18.468 PLAY CONTROLS



(Select a Device to Drag and Drop to the Workspace)

Scenario (0)

New

Delete

Toggle POI List Window

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

Successful PC1 PC0 ICMP 0.000 N 0 (edit) (delete)

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help						
Apply a display filter: <Ctrl>F						
No.	Time	Source	Destination	Protocol	Length	Info
2218	237.970959	2620::1ec:42::132	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	TLSv1.2	112	Application Data
2219	237.970959	2620::1ec:42::132	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	TCP	74	443 → 55445 [ACK] Seq=5994 Ack=1572 Win=524544 Len=0
2220	237.970959	2620::1ec:42::132	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	TCP	74	443 → 55445 [ACK] Seq=5994 Ack=4942 Win=524544 Len=0
2221	237.970959	2620::1ec:42::132	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	TCP	74	443 → 55445 [ACK] Seq=5994 Ack=6312 Win=524544 Len=0
2222	237.970959	2620::1ec:42::132	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	TCP	74	443 → 55445 [ACK] Seq=5994 Ack=7682 Win=524544 Len=0
2223	237.970959	2620::1ec:42::132	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	TCP	74	443 → 55445 [ACK] Seq=5994 Ack=9052 Win=524544 Len=0
2224	237.970959	2620::1ec:42::132	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	TCP	74	443 → 55445 [ACK] Seq=5994 Ack=9526 Win=524032 Len=0
2225	237.971316	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	2620::1ec:42::132	TLSv1.2	112	Application Data
2226	238.226080	2409::4041:2e1e:c6f4:3091:b55e:bfa5:f475	2620::1ec:42::132	TCP	232	[TCP Retransmission] 55446 → 443 [PSH, ACK] Seq=575 Ack=5561 Win=65536 Len=158

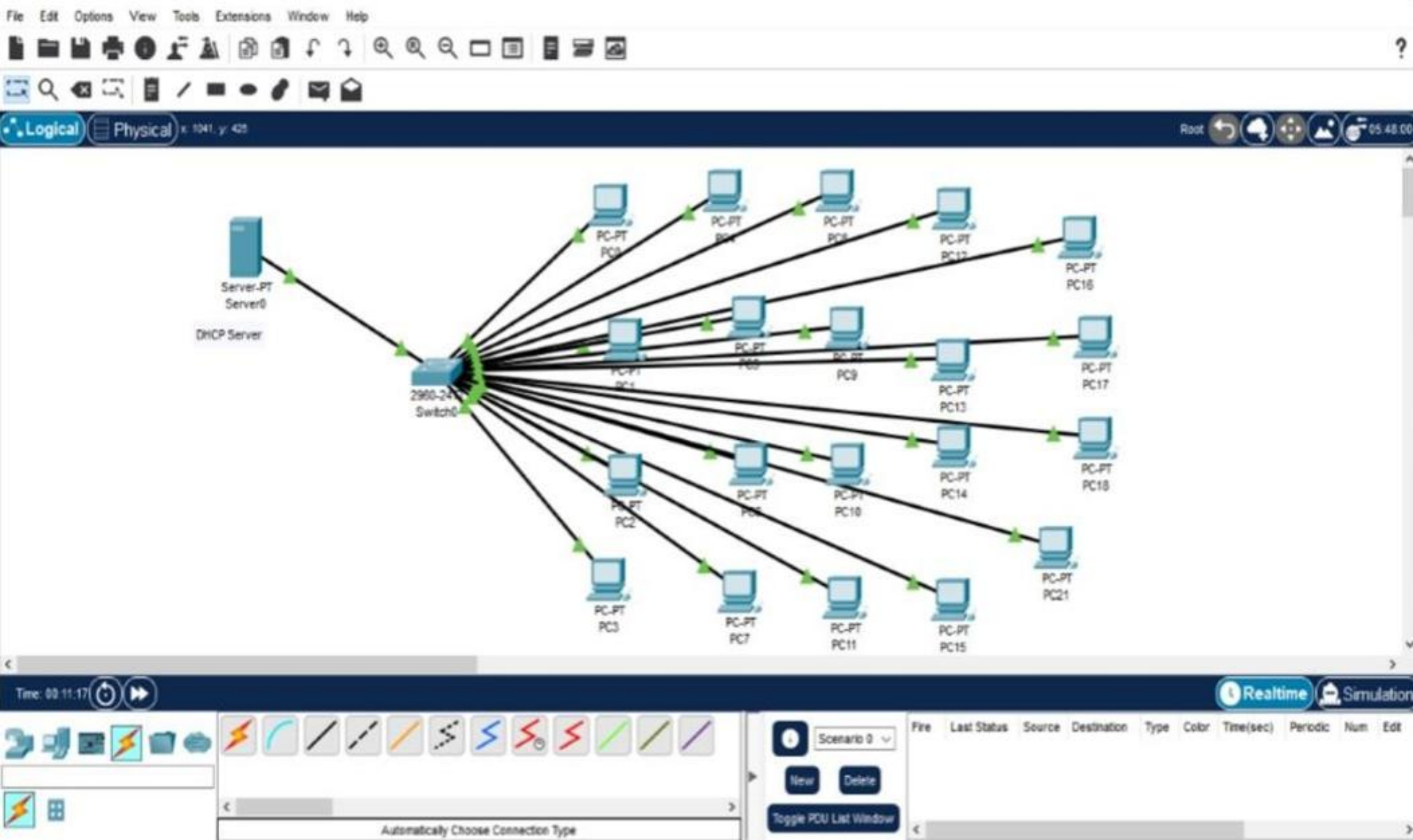
> Frame 1: 97 bytes on wire (776 bits), 97 bytes captured (776 bits) on interface \Device\NPF\_{9CA1622D-D45D-4416-8F7A-C348A17A027E}, Id 0  
 > Ethernet II, Src: AzureWave\_b2:5b:db (28-ae-f6:b2:5b:db), Dst: 92:a9:ce:5c:a7:bb (92:a9:ce:5c:a7:bb)  
 > Internet Protocol Version 4, Src: 192.168.43.76, Dst: 20.198.162.78  
 > Transmission Control Protocol, Src Port: 52420, Dst Port: 443, Seq: 1, Ack: 1, Len: 43  
 > Transport Layer Security

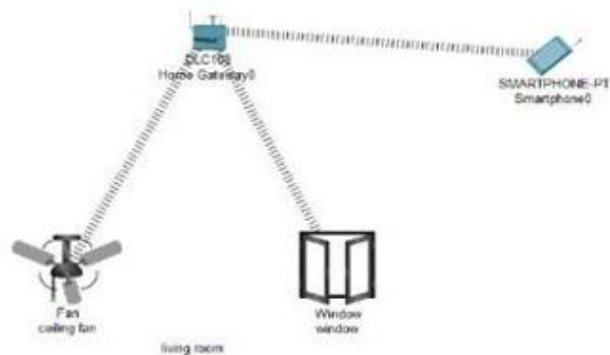
```

0000  92 a3 ce 5c a7 bb 20 4e f6 b2 5b db 00 00 45 00  ...N...E.
0010  00 51 1b 70 00 00 30 00 1c 2c c0 a0 2b 4c 14 c0  -S;p---...L-
0020  a2 4e cc e4 01 bb 1b df 5e f0 f8 06 6d ae 50 18  -N-----bP-
0030  00 fc bf 6f 00 00 17 03 03 00 26 70 00 00 00 00  -o-----A---
0040  00 00 3e ef ec 70 3c 95 c3 5d 08 95 65 f5 17 28  ->...X(-]...e...
0050  06 c8 9a c5 e9 6d f6 c9 52 0e 00 81 31 09 35 12  -...-R...1.52
0060  35

```



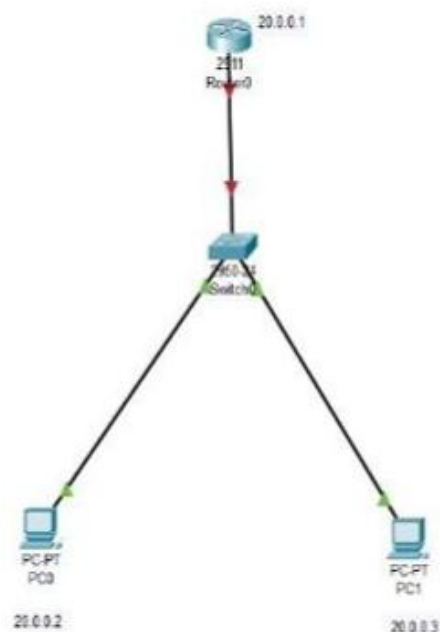






Logical Physical x 1562, y 428

Rout ? 00:27:30



Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.002	Switch0
	0.003	PC1
	0.004	Switch0
	0.004	--
	0.005	PC0
	0.006	Switch0
	0.007	PC1
	0.008	Switch0
	1.996	--
	1.997	--
	1.997	Switch1
	1.997	Switch1
	1.997	--

Reset Simulation

☒ Constant Delay

Capturing

Play Controls



Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Time: 00:00:34.496 PLAY CONTROLS



(Select a Device to Drag and Drop to the Workspace)

Scenario 0

New Delete

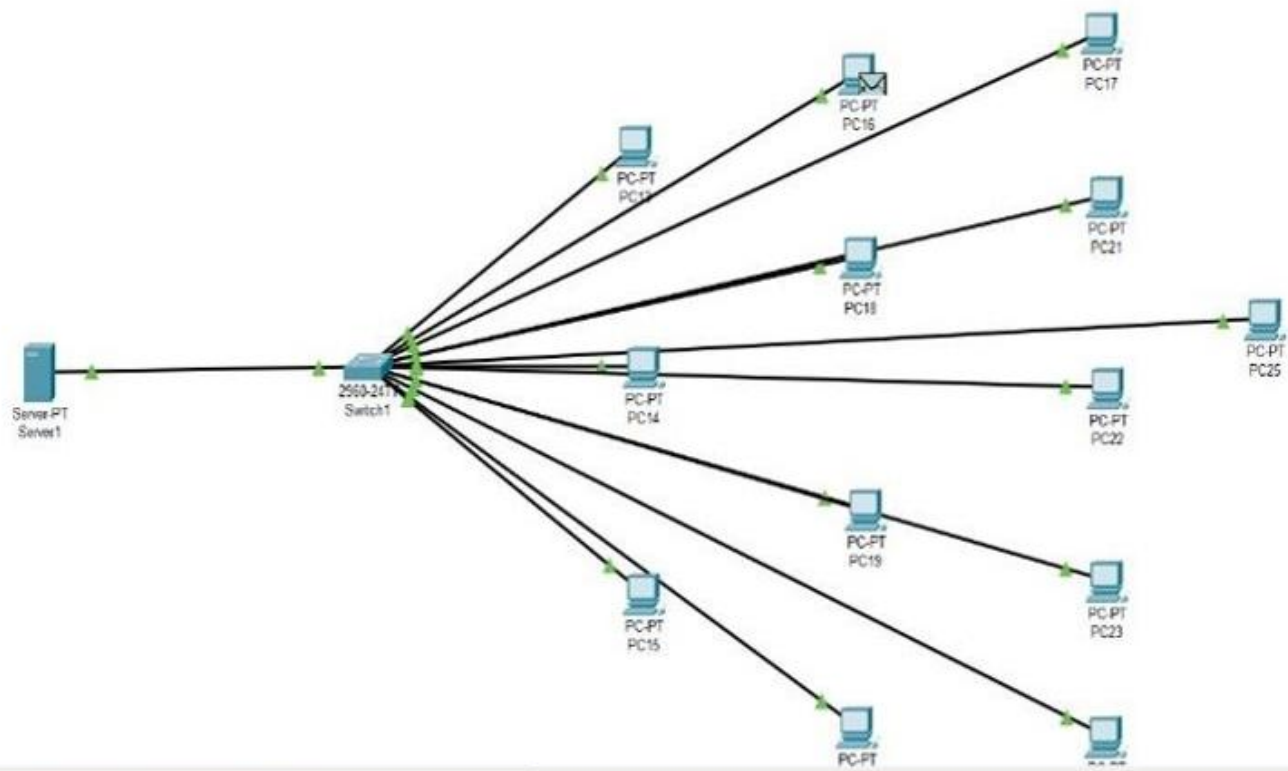
Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC1	ICMP		0.000	N	0	(edit)	(delete)

Event List

Realtime

Simulation



### Simulation Panel

Event List

Vis	Time(sec)	Last Device
	0.002	Switch1
	0.002	Switch1
	0.002	Switch1
	0.002	Switch1
	0.002	Switch1
	0.002	Switch1
	0.003	PC10
	0.004	Switch1
	0.004	-
	0.005	PC15
	0.006	Switch1
	0.007	PC18
	0.008	Switch1

Reset Simulation ☒ Constant Delay Capture to: 0.000 s

Play Controls

⏮ ⏪ ⏸ ⏩ ⏭

Event List Filters - Visible Events

ACL Filter, ARP, Bluetooth, CAPWAP, COP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PaGP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCOP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:00:38.492 PLAY CONTROLS ⏮ ⏪ ⏸ ⏩ ⏭

(Select a Device to Drag and Drop to the Workspace)

Scenario 0

New Delete

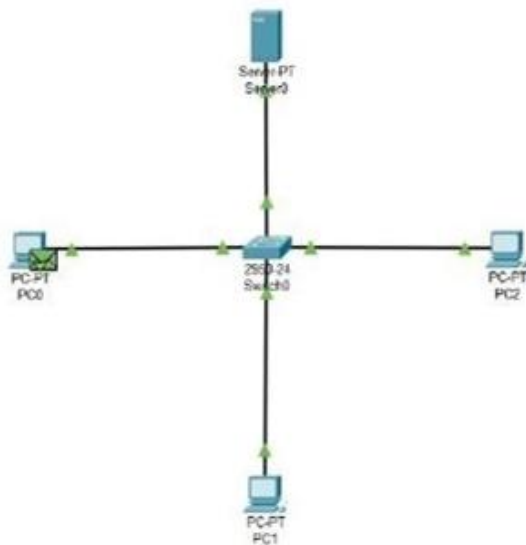
Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC15	PC18	ICMP		0.000	N	0	(edit)	(delete)



Logical Physical x: 1190, y: 44

Root 00:29:30



Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	-
	0.001	PC0
	0.002	Switch0
	0.002	Switch0
	0.002	Switch0
	0.003	PC1
	0.004	Switch0

Reset Simulation ☒ Constant Delay Captured to: 150.598 s

Play Controls



Event List Filters - Visible Events

ARP

Edit Filters

Show All/None

Event List

Realtime

Simulation

Time: 00:05:23.647 PLAY CONTROLS



(Click on a Device to Place and Connect to the Network)

Scenario 0

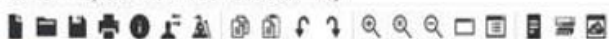
New

Delete

Toggle PDU List Window

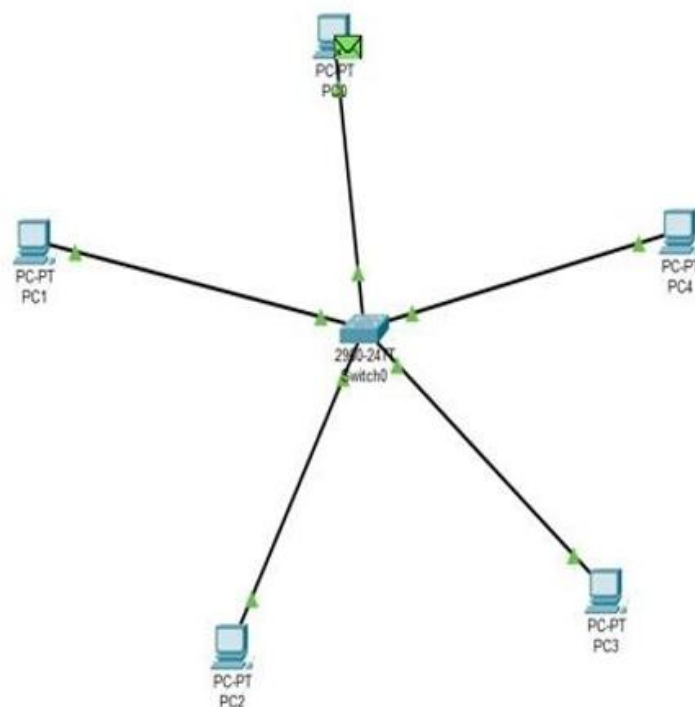
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC1	ICMP		0.000	N	0	(edit)	(delete)





Logical Physical x 1131, y 146

[Root] 01:37:30



Simulation Panel

Event List

Vis	Time(sec)	Last Device	At Device	Type
	850.567	--	PC0	
	850.568	PC0	Switch0	
	850.569	Switch0	PC1	
	850.569	Switch0	PC4	
	850.569	Switch0	PC2	
	850.569	Switch0	PC3	
	850.570	PC3	Switch0	
<input checked="" type="checkbox"/>	850.571	Switch0	PC0	

Reset Simulation ☒ Constant Delay Capturing...

Play Controls



Event List Filters - Visible Events  
ICMP

Edit Filters

Show All/None

Time: 00:39:17.223 PLAY CONTROLS



(Select a Device to Drag and Drop to the Workspace)

Scenario 0

New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
<input checked="" type="checkbox"/>	Successful	PC0	PC3	ICMP		850.567	N	0	(edit)	(delete)

Event List Realtime Simulation



Capturing from Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Wireshark - Packet 7369 - Wi-Fi

http

No.	Time
7369	121.888782
7377	121.949898
7517	122.834292
7546	122.906836
7614	123.093958
7623	123.147260

> Frame 7369: 381 bytes on wire (3048 bits), 381 bytes captured (3048 bits) on interface \Device\NPF\_{F5367B82-0A75-47C4-9394-54474B456B71}, id 0

> Ethernet II, Src: Intel\_d1:3d:b4 (e0:2e:0b:d1:3d:b4), Dst: Cisco\_eb:bd:c8 (08:26:0b:eb:bd:c8)

> Internet Protocol Version 4, Src: 172.18.107.69, Dst: 13.235.227.133

> Transmission Control Protocol, Src Port: 53815, Dst Port: 80, Seq: 1, Ack: 1, Len: 327

> Hypertext Transfer Protocol

0000 00 26 0b eb bd c8 e0 2e 0b d1 3d b4 08 00 45 00 .&.....-...E-  
0010 01 6f 5b 78 40 00 80 06 00 00 ac 12 6b 45 0d eb .o[x@....-...kE..  
0020 e3 85 d2 37 00 50 61 5f 05 17 d8 46 43 12 50 18 ...Z Pa ...FC-P  
0030 02 01 0a 2a 00 00 47 45 54 20 2f 61 70 69 2d 76 ...\*.GE T /api-v  
0040 32 2f 70 72 6f 78 79 2f 70 61 67 65 2d 6d 61 74 2/proxy/ page-mat  
0050 65 72 69 61 6c 2f 6d 64 35 3f 61 63 74 69 76 69 erial/md 5?activi  
0060 74 79 5f 66 6c 61 67 3d 61 30 37 33 64 37 61 62 ty\_flag=a073d7ab  
0070 65 37 39 35 38 37 31 33 31 26 70 61 67 65 5f 66 e7958713 1&page\_f  
0080 6c 61 67 3d 70 30 65 31 32 61 30 63 64 61 30 64 lag=p0e1 2a0cda0d  
0090 62 34 64 38 30 20 48 54 54 50 2f 31 2e 31 0d 0a b4d88 HT TP/1.1  
00a0 48 6f 73 74 3a 20 6f 76 73 2d 61 63 74 69 76 69 Host: ov s-activi  
00b0 74 79 2d 73 65 72 76 65 72 2e 77 70 73 2e 63 6f ty-serve r.ups.co  
00c0 6d 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e 3a 20 6b m- Conne ction: k  
00d0 65 65 70 2d 61 6c 69 76 65 0d 0a 41 63 63 65 70 eep-aliv e- Accep  
00e0 74 3a 20 61 70 79 6c 69 63 61 74 69 6f 6e 2f 6a t: appli cation/j  
00f0 73 6f 6e 2c 20 74 65 78 74 2f 70 6c 61 69 6e 2c son, tex t/plain,  
0100 20 2a 2f 2a 0d 0a 4f 72 69 67 69 6e 3a 20 68 74 /\*-Or ign: ht

No: 7369 - Time: 121.888782 - Source: 172.18.107.69 - Destination: 13.235.227.133 - Protocol: HTTP - Length: 381 - Info: GET /api-v2/proxy/page-material/md5?activity\_flag=a073d7ab&page\_flag=p0e12a0cda0db4d88 HTTP/1.1

☒ Show packet bytes - Layout: Vertical (Stacked)

Close Help

Hypertext Transfer Protocol: Protocol

Packets: 8366 - Displayed: 6 (0.1%)

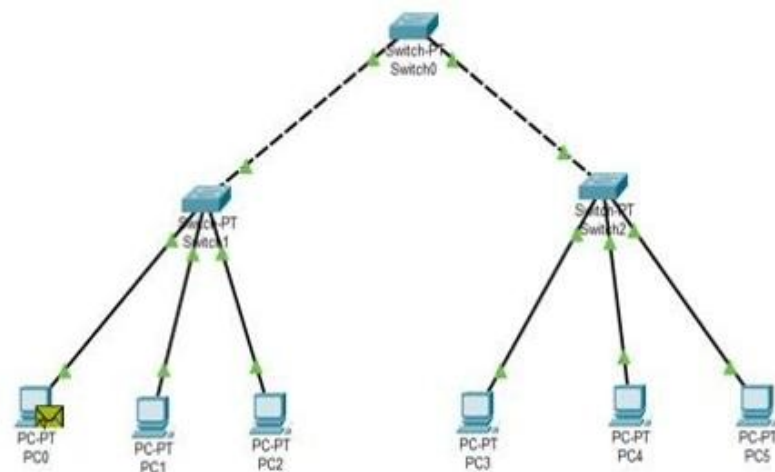
Profile: Default

27°C Partly sunny

Search

ENG IN

9:38 AM 10/25/2024



## Simulation Panel

## Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	-	PC0	
	0.008	-	PC0	
	0.009	PC0	Switch1	
	0.010	Switch1	Switch0	
	0.011	Switch0	Switch2	
	0.012	Switch2	PC3	
	0.013	PC3	Switch2	
	0.014	Switch2	Switch0	
	0.015	Switch0	Switch1	
<input checked="" type="checkbox"/>	0.016	Switch1	PC0	

Reset Simulation ☒ Constant Delay Capturing...

## Play Controls



## Event List Filters - Visible Events

ICMP

Edit Filters

Show All/None

Time: 00:10:42.862 PLAY CONTROLS



(Select a Device to Drag and Drop to the Workspace)

Scenario 0

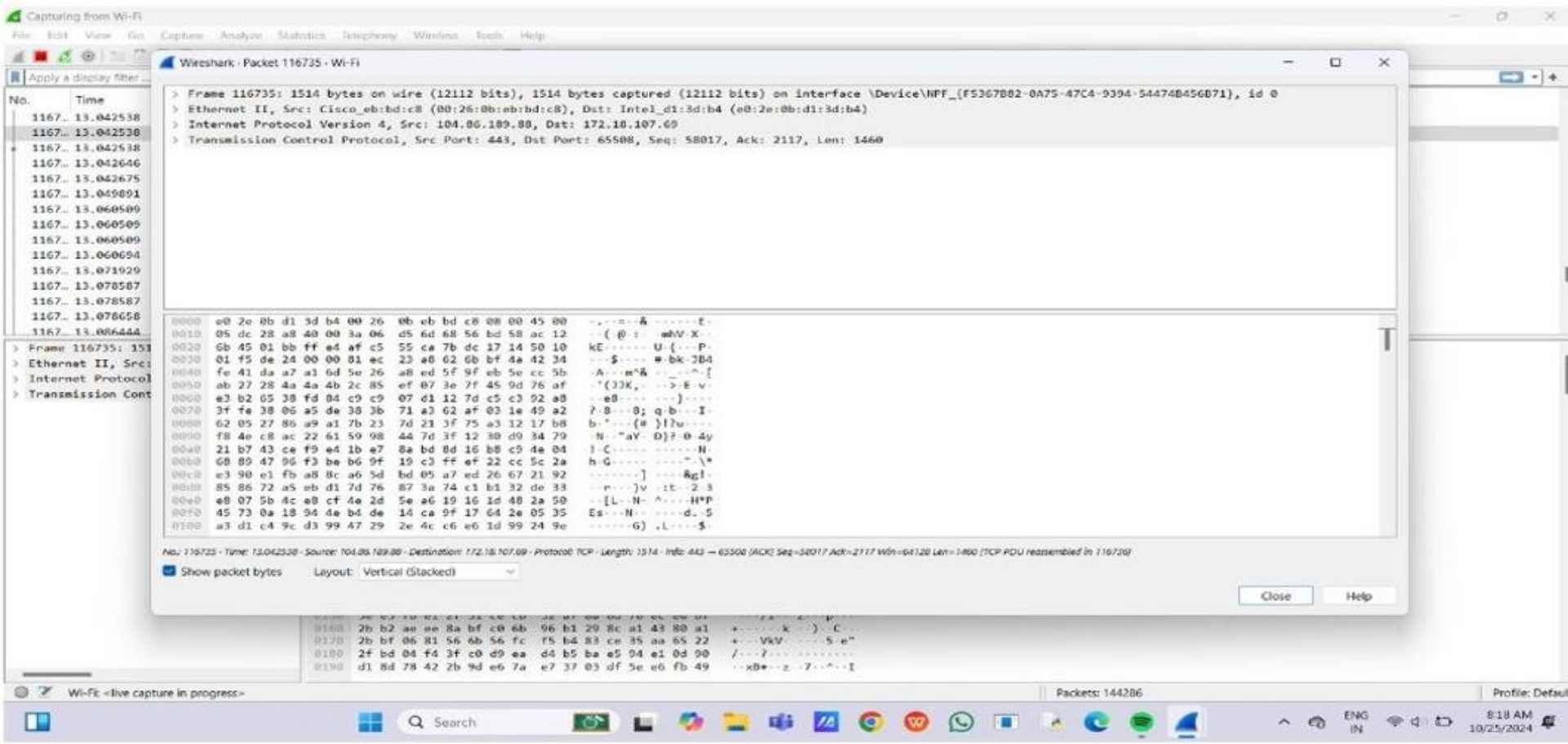
New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
<input checked="" type="checkbox"/>	Successful	PC0	PC3	ICMP		0.000	N	0	(edit)	(delete)

Event List Realtime Simulation





Capturing from Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Wireshark - Packet 116703 - Wi-Fi

udp

No. Time

1166... 11.989885

1166... 12.282347

1166... 12.282347

1166... 12.590425

1167... 12.901530

1167... 12.901530

1167... 13.206005

1167... 13.420241

1167... 13.421898

1167... 13.421971

1168... 13.462834

1168... 13.525602

1168... 13.525602

> Frame 116703: 312 bytes on wire (2496 bits), 312 bytes captured (2496 bits) on interface \Device\NPF\_{F5367B82-0A75-47C4-9394-54474B456B71}, id 0

> Ethernet II, Src: Ubiquiti\_20:8a:92 (74:83:c2:20:8a:92), Dst: Broadcast (ff:ff:ff:ff:ff:ff)

> Internet Protocol Version 4, Src: 172.18.98.11, Dst: 255.255.255.255

> User Datagram Protocol, Src Port: 33880, Dst Port: 10001

> Data (270 bytes)

0000 ff ff ff ff ff ff 74 83 c2 20 8a 92 08 00 45 00 .....t.....E-

0010 01 2a 5a 09 40 00 40 11 d1 9c ac 12 62 0b ff ff \*Z.@.....b...

0020 ff ff 84 58 27 11 01 16 06 1f 02 06 01 0a 35 00 X'.....5...

0030 04 ff 00 00 00 35 00 04 00 00 00 00 35 00 04 00 5.....5.....

0040 00 00 00 35 00 04 00 00 00 00 35 00 04 00 00 00 5.....5.....

0050 00 35 00 04 00 00 00 00 35 00 04 00 00 00 35 00 5.....5.....

0060 00 04 00 00 00 00 35 00 04 00 00 00 35 00 04 00 5.....5.....

0070 00 00 00 00 02 00 0a 74 83 c2 20 8a 92 ac 12 62 .....t.....b

0080 0b 35 00 04 ff ff f0 00 01 00 06 74 83 c2 20 8a 5.....t.....

0090 92 0a 00 04 00 03 e7 65 0b 00 0a 4b 48 2d 32 46 .....e.....KH-2F

00a0 2d 52 32 31 36 0c 00 05 55 37 50 47 32 03 00 23 -R216---U7PG2-#

00b0 42 5a 2e 71 63 61 39 35 36 78 5f 36 2e 35 2e 32 BZ.qca95 6x\_6.5.2

00c0 38 2b 31 34 34 39 31 2e 32 33 30 31 32 37 2e 31 8+14491. 230127.1

00d0 36 31 32 16 00 0c 36 2e 35 2e 32 38 2e 31 34 34 612--6. 5.28.144

00e0 39 31 15 00 05 55 37 50 47 32 17 00 01 00 18 00 91---U7P G2-----

00f0 01 00 19 00 01 01 1a 00 01 01 13 00 06 74 83 c2 .....t.....

0100 20 8a 92 12 00 04 00 00 01 13 1b 00 05 33 2e 34 .....3.4

No: 116703 • Time: 12.901530 • Source: 172.18.98.11 • Destination: 255.255.255.255 • Protocol: UDP • Length: 312 • Info: 33880 → 10001 Len=270

☒ Show packet bytes Layout: Vertical (Stacked)

Close Help

wireshark\_Wi-Fi08VZV2.pcapng

Packets: 232697 • Displayed: 8442 (3.6%)

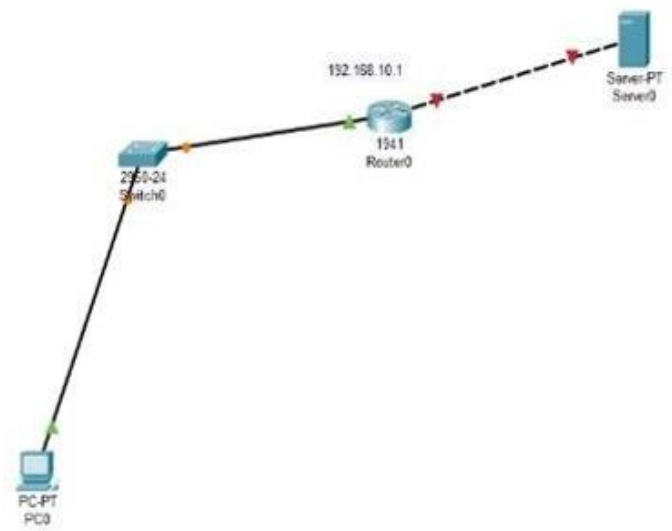
Profile: Default

27°C Partly sunny

Search

ENG IN

8:22 AM 10/25/2024



```

main.c
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <arpa/inet.h>
6 #define PORT 5353
7 #define BUFFER_SIZE 512
8 #define DOMAIN "example.com"
9 #define IP_ADDRESS "93.184.216.34"
10
11 int main() {
12     int sockfd;
13     struct sockaddr_in server_addr, client_addr;
14     socklen_t addr_len = sizeof(client_addr);
15     char buffer[BUFFER_SIZE];
16
17     if ((sockfd = socket(AF_INET, SOCK_DGRAM, 0)) < 0) {
18         perror("Socket creation failed");
19         exit(EXIT_FAILURE);
20     }
21
22     memset(&server_addr, 0, sizeof(server_addr));
23     server_addr.sin_family = AF_INET;
24     server_addr.sin_addr.s_addr = INADDR_ANY;
25     server_addr.sin_port = htons(PORT);
26
27     if (bind(sockfd, (const struct sockaddr *)&server_addr, sizeof(server_addr)) < 0) {
28         perror("Bind failed");
29         exit(EXIT_FAILURE);
30     }
31
    /tmp/ChDlpync.o
    DNS Server is listening on port 5353

```

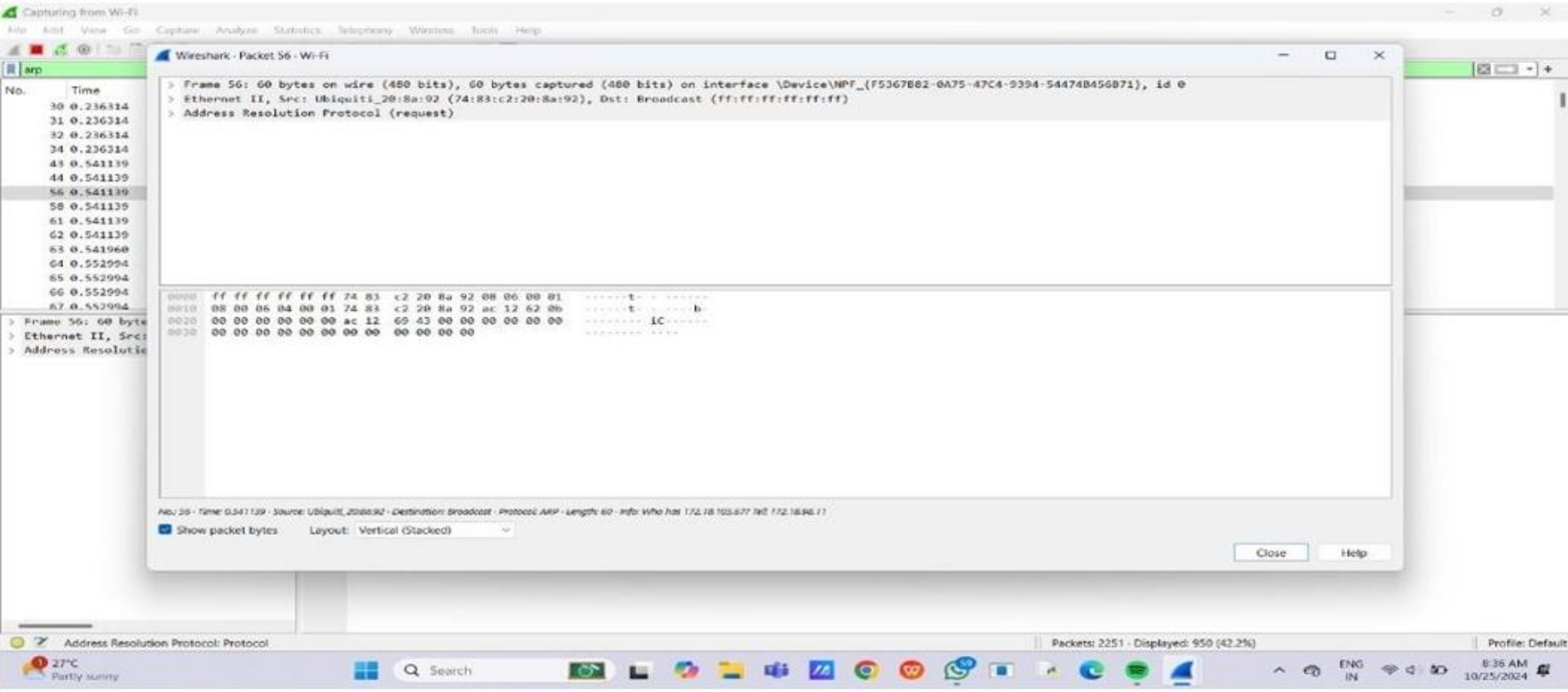
```

main.c
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <arpa/inet.h>
6
7 #define SERVER_IP "127.0.0.1"
8 #define PORT 5353
9 #define DOMAIN "google.com"
10 #define BUFFER_SIZE 512
11
12 int main() {
13     int sockfd;
14     struct sockaddr_in server_addr;
15     char buffer[BUFFER_SIZE];
16
17     if ((sockfd = socket(AF_INET, SOCK_DGRAM, 0)) < 0) {
18         perror("Socket creation failed");
19         exit(EXIT_FAILURE);
20     }
21
22     memset(&server_addr, 0, sizeof(server_addr));
23     server_addr.sin_family = AF_INET;
24     server_addr.sin_port = htons(PORT);
25     inet_pton(AF_INET, SERVER_IP, &server_addr.sin_addr);
26
27     sendto(sockfd, DOMAIN, strlen(DOMAIN), 0, (struct sockaddr *)&server_addr, sizeof
    (server_addr));
28     printf("Sent query for: %s\n", DOMAIN);
29
    /tmp/LUGMKirV1.o
    Sent query for: google.com

```

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.10.1	192.168.40.1	ICMP	118	Echo (ping) request id=0x0005
2	0.032014	192.168.40.1	192.168.10.1	ICMP	114	Echo (ping) reply id=0x0005
3	0.055998	192.168.10.1	192.168.40.1	ICMP	118	Echo (ping) request id=0x0005
4	0.168048	192.168.40.1	192.168.10.1	ICMP	114	Echo (ping) reply id=0x0005
5	0.192023	192.168.10.1	192.168.40.1	ICMP	118	Echo (ping) request id=0x0005
6	0.233918	192.168.40.1	192.168.10.1	ICMP	114	Echo (ping) reply id=0x0005
7	0.256022	192.168.10.1	192.168.40.1	ICMP	118	Echo (ping) request id=0x0005
8	0.293932	192.168.40.1	192.168.10.1	ICMP	114	Echo (ping) reply id=0x0005
9	0.312018	192.168.10.1	192.168.40.1	ICMP	118	Echo (ping) request id=0x0005
10	0.341930	192.168.40.1	192.168.10.1	ICMP	114	Echo (ping) reply id=0x0005

0000	c2 05 63 4d 00 00	c2 03 63	3e 00 00 88 47 00 01	..cM..c>...G..
0010	21 fe 45 00 00 64 00 19	00 00 fe 01 09 2d c0 a8	!..E..d.....-	
0020	0a 01 c0 a8 28 01 08 00	6d 99 00 05 00 00 00 00	....(....m.....	
0030	00 00 00 24 10 88 ab cd	ab cd ab cd ab cd ab cd	...\$.....	
0040	ab cd ab cd ab cd ab cd	ab cd ab cd ab cd ab cd	.....	
0050	ab cd ab cd ab cd ab cd	ab cd ab cd ab cd ab cd	.....	
0060	ab cd ab cd ab cd ab cd	ab cd ab cd ab cd ab cd	.....	
0070	ab cd ab cd ab cd		.....	







```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 #define FLAG_SEQUENCE "01111110"
6
7 // Function to perform bit stuffing
8 void bit_stuffing(const char *input, char *output) {
9     int count = 0; // Count of consecutive '1's
10    int j = 0; // Index for output array
11
12    for (int i = 0; input[i] != '\0'; i++) {
13        output[j++] = input[i]; // Copy the current bit to output
14
15        // Count consecutive '1's
16        if (input[i] == '1') {
17            count++;
18        } else {
19            count = 0; // Reset count if '0' is found
20        }
21
22        // If we have five consecutive '1's, insert a '0'
23        if (count == 5) {
24            output[j++] = '0'; // Stuff a '0'
25            count = 0; // Reset count after stuffing
26        }
27    }
28
29    output[j] = '\0'; // Null-terminate the output string
30 }
```

/tmp/qqvjxHih4o.o

Input Data: 11111011101111101011111

Stuffed Data: 11111001110111110101011110

Destuffed Data: 111110111011111101011111

\*\*\* Code Execution Successful \*\*\*



```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <arpa/inet.h>
6
7 #define PORT 8080
8 #define BUFFER_SIZE 1024
9
10 void send_file(FILE *fp, int sockfd) {
11     char buffer[BUFFER_SIZE];
12
13     while (fgets(buffer, BUFFER_SIZE, fp) != NULL) {
14         if (send(sockfd, buffer, sizeof(buffer), 0) == -1) {
15             perror("Error sending file");
16             exit(1);
17         }
18         bzero(buffer, BUFFER_SIZE);
19     }
20 }
21
22 int main() {
23     int sockfd, new_sock;
24     struct sockaddr_in server_addr, new_addr;
25     socklen_t addr_size;
26
27     sockfd = socket(AF_INET, SOCK_STREAM, 0);
28     if (sockfd < 0) {
29         perror("Socket creation failed");
30         exit(EXIT_FAILURE);
31     }
```

```
~/tmp/5AjtU6K1u9.o
Listening on port 8080...
```

```

main.c
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <arpa/inet.h>
6
7 #define PORT 8080
8 #define BUFFER_SIZE 1024
9
10 void receive_file(int sockfd) {
11     char buffer[BUFFER_SIZE];
12     FILE *fp = fopen("received_file.txt", "w");
13     if (fp == NULL) {
14         perror("File open failed");
15         exit(1);
16     }
17
18     int n;
19     while ((n = recv(sockfd, buffer, sizeof(buffer), 0)) > 0) {
20         fwrite(buffer, sizeof(char), n, fp);
21         bzero(buffer, BUFFER_SIZE);
22     }
23
24     fclose(fp);
25 }
26
27 int main() {
28     int sockfd;
29     struct sockaddr_in server_addr;
30
31     /tmp/CTUgSelp.o
32     Connection failed: Connection refused
33
34     *** Code Exited With Errors ***

```

```

main.c
1 #include <stdio.h>
2 #include <string.h>
3
4 #define POLYNOMIAL 0x07
5
6 unsigned char compute_crc(const char *data) {
7     unsigned char crc = 0; // Initial CRC value
8     size_t len = strlen(data);
9
10    for (size_t i = 0; i < len; i++) {
11        crc ^= (data[i] & 0xFF);
12
13        for (int j = 0; j < 8; j++) {
14            if (crc & 0x80) {
15                crc = (crc << 1) ^ POLYNOMIAL;
16            } else {
17                crc <<= 1;
18            }
19        }
20    }
21    return crc;
22 }
23
24 void simulate_error(char *data) {
25     size_t len = strlen(data);
26     if (len > 0) {
27         data[0] = (data[0] ^ 0x01);
28     }
29 }
30
31 int check_crc(const char *data, unsigned char crc) {
32     /tmp/DL_RStVdd.o
33     ERROR!
34     Original Data: Hello, World!
35     Computed CRC: 0x07
36     Data after error: Hello, World!
37     Error detected in data!
38
39     *** Code Execution Successful ***

```

```

main.c
1 #include <arpa/inet.h> // inet_addr()
2 #include <netdb.h>
3 #include <stdio.h>
4 #include <stdlib.h>
5 #include <string.h>
6 #include <strings.h> // bzero()
7 #include <sys/socket.h>
8 #include <unistd.h> // read(), write(), close()
9 #define MAX 10
10 #define PORT 8080
11 #define SA struct sockaddr
12 void func(int sockfd)
13 {
14     char buff[MAX];
15     int n;
16     for (;;) {
17         bzero(buff, sizeof(buff));
18         printf("Enter the string : ");
19         n = 0;
20         while ((buff[n++] = getchar()) != '\n')
21             ;
22         write(sockfd, buff, sizeof(buff));
23         bzero(buff, sizeof(buff));
24         read(sockfd, buff, sizeof(buff));
25         printf("From Server : %s", buff);
26         if ((strcmp(buff, "exit", 4)) == 0) {
27             printf("Client Exit...\n");
28             break;
29         }
30     }
31 }

```

```

- /tmp/vstJF2465.o
Socket successfully created..
connection with the server failed...

--- Code Execution Successful ---

```

```

main.c
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <arpa/inet.h>
5 #include <netinet/if_ether.h>
6 #include <sys/socket.h>
7 #include <unistd.h>
8
9 #define CACHE_SIZE 10
10
11 typedef struct {
12     char ip[INET_ADDRSTRLEN];
13     unsigned char mac[ETH_ALEN];
14 } arp_cache_entry;
15
16 arp_cache_entry arp_cache[CACHE_SIZE];
17
18 void add_to_cache(const char *ip, unsigned char *mac) {
19     for (int i = 0; i < CACHE_SIZE; i++) {
20         if (strlen(arp_cache[i].ip) == 0) {
21             strcpy(arp_cache[i].ip, ip);
22             memcpy(arp_cache[i].mac, mac, ETH_ALEN);
23             break;
24         }
25     }
26 }
27
28 void print_cache() {
29     for (int i = 0; i < CACHE_SIZE; i++) {
30         if (strlen(arp_cache[i].ip) > 0) {
31             printf("IP: %s, MAC: %02x:%02x:%02x:%02x:%02x:%02x\n",

```

```

- /tmp/RSk004d6e.o
IP: 192.168.1.1, MAC: 00:11:22:33:44

--- Code Execution Successful ---

```



```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <netdb.h>
4 #include <arpa/inet.h>
5
6 int main() {
7     char *hostname = "www.example.com";
8     struct hostent *host_info;
9     struct in_addr **address_list;
10
11     host_info = gethostbyname(hostname);
12
13     if (host_info == NULL) {
14         printf("Error: Could not resolve hostname.\n");
15         return 1;
16     }
17
18     address_list = (struct in_addr **) host_info->h_addr_list;
19
20     printf("IP Address: %s\n", inet_ntoa(*address_list[0]));
21
22     return 0;
23 }
```

/tmp/TseKZkR01V.o

IP Address: 93.184.215.14

=== Code Execution Successful ===



main.c

Share

Run

Output

```

1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <sys/socket.h>
6 #include <netinet/in.h>
7 #include <time.h>
8
9 #define PORT 8080
10 #define BUFFER_SIZE 256
11
12 int main() {
13     int server_fd, new_socket;
14     struct sockaddr_in address;
15     int opt = 1;
16     int addrlen = sizeof(address);
17     char buffer[BUFFER_SIZE];
18
19     if ((server_fd = socket(AF_INET, SOCK_STREAM, 0)) == 0) {
20         perror("Socket failed");
21         exit(EXIT_FAILURE);
22     }
23
24     if (setsockopt(server_fd, SOL_SOCKET, SO_REUSEADDR, &opt, sizeof(opt))) {
25         perror("Setsockopt failed");
26         exit(EXIT_FAILURE);
27     }
28
29     address.sin_family = AF_INET;
30     address.sin_addr.s_addr = INADDR_ANY; // listen on all interfaces
31     address.sin_port = htons(PORT); // Convert port to network byte order

```

```

/tmp/0HtAH0CH0.o
Date and Time Server is listening on port 8080

```

main.c

Share

Run

Output

```

1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <sys/socket.h>
6 #include <netinet/in.h>
7
8 #define PORT 8080
9 #define BUFFER_SIZE 256
10
11 int main() {
12     int sock;
13     struct sockaddr_in serv_addr;
14     char buffer[BUFFER_SIZE] = {0};
15
16     if ((sock = socket(AF_INET, SOCK_STREAM, 0)) < 0) {
17         perror("Socket creation error");
18         return -1;
19     }
20
21     serv_addr.sin_family = AF_INET;
22     serv_addr.sin_port = htons(PORT); // Convert port to network byte order
23     serv_addr.sin_addr.s_addr = INADDR_ANY; // For simplicity, use any address
24
25     if (connect(sock, (struct sockaddr *)&serv_addr, sizeof(serv_addr)) < 0) {
26         perror("Connection failed");
27         return -1;
28     }
29
30     int valread = read(sock, buffer, BUFFER_SIZE);
31     if (valread < 0) {

```

```

/tmp/s0to0tVt9.o
Connection failed: Connection refused

*** Code Exited With Errors ***

```

main.c



Output

```

1 #include <stdio.h>
2 #include <netdb.h>
3 #include <netinet/in.h>
4 #include <stdlib.h>
5 #include <string.h>
6 #include <sys/socket.h>
7 #include <sys/types.h>
8 #include <unistd.h> // read(), write(), close()
9 #define MAX 80
10 #define PORT 8080
11 #define SA struct sockaddr
12
13 // Function designed for chat between client and server.
14 void func(int sockfd)
15 {
16     char buff[MAX];
17     int n;
18     // infinite loop for chat
19     for (;;) {
20         bzero(buff, MAX);
21
22         // read the message from client and copy it in buffer
23         read(sockfd, buff, sizeof(buff));
24         // print buffer which contains the client contents
25         printf("From client: %s to client : ", buff);
26         bzero(buff, MAX);
27         n = 0;
28         // copy server message in the buffer
29         while ((buff[n++] = getchar()) != '\n')
30             ;
31

```

```

/tmp/6AikIALSVT.o
Socket successfully created..
Socket successfully binded..
Server listening..

```

main.c



Output

```

1 #include <arpa/inet.h> // inet_addr()
2 #include <netdb.h>
3 #include <stdio.h>
4 #include <stdlib.h>
5 #include <string.h>
6 #include <strings.h> // bzero()
7 #include <sys/socket.h>
8 #include <unistd.h> // read(), write(), close()
9 #define MAX 80
10 #define PORT 8080
11 #define SA struct sockaddr
12 void func(int sockfd)
13 {
14     char buff[MAX];
15     int n;
16     for (;;) {
17         bzero(buff, sizeof(buff));
18         printf("Enter the string : ");
19         n = 0;
20         while ((buff[n++] = getchar()) != '\n')
21             ;
22         write(sockfd, buff, sizeof(buff));
23         bzero(buff, sizeof(buff));
24         read(sockfd, buff, sizeof(buff));
25         printf("From Server : %s", buff);
26         if ((strcmp(buff, "exit", 4)) == 0) {
27             printf("Client Exit...\n");
28             break;
29         }
30     }
31 }

```

```

/tmp/Q4oF5mJ6.o
Socket successfully created..
connection with the server failed.

```

```

*** Code Execution Successful ***

```