

main.c

Share

Run

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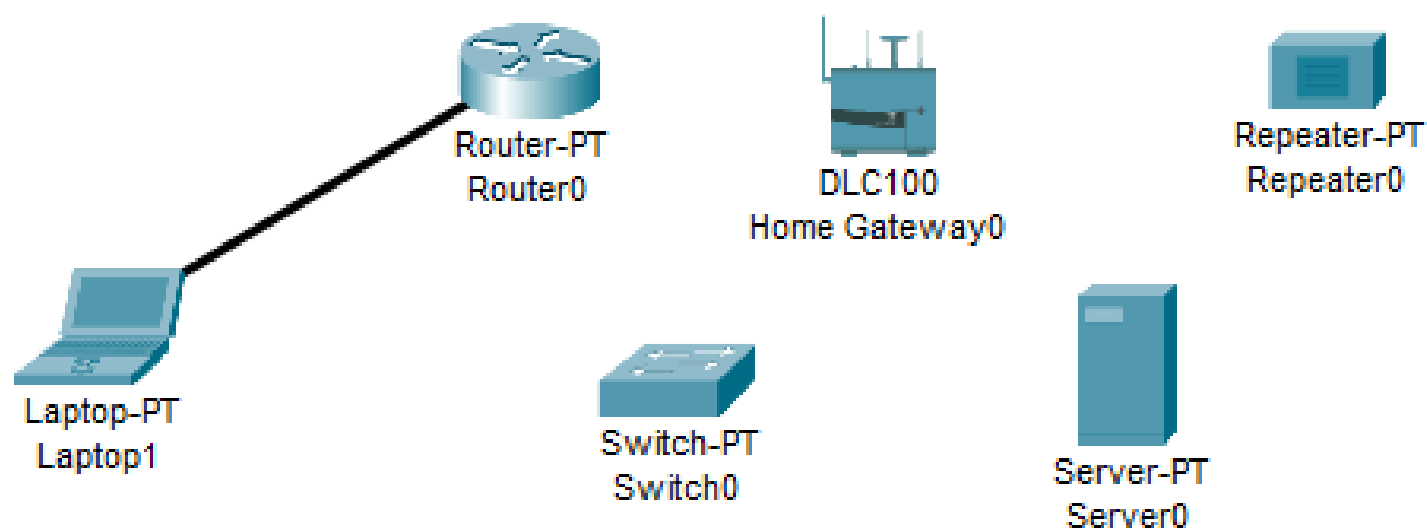
```
if (data[i] == '1') {  
    stuffed_data[j++] = data[i]; // Add it to the stuffed  
    data  
    count++; // Increment the count of consecutive '1's  
  
    // If we have five consecutive '1's, insert a '0'  
    if (count == 5) {  
        stuffed_data[j++] = '0';  
        count = 0; // Reset the counter  
    }  
}  
// If the current bit is '0'  
else {  
    stuffed_data[j++] = data[i]; // Add it to the stuffed  
    data  
    count = 0; // Reset the counter  
}  
}  
stuffed_data[j] = '\0'; // Null-terminate the stuffed data  
string  
  
printf("Original data: %s\n", data);  
printf("Stuffed data: %s\n", stuffed_data);  
  
return 0;
```

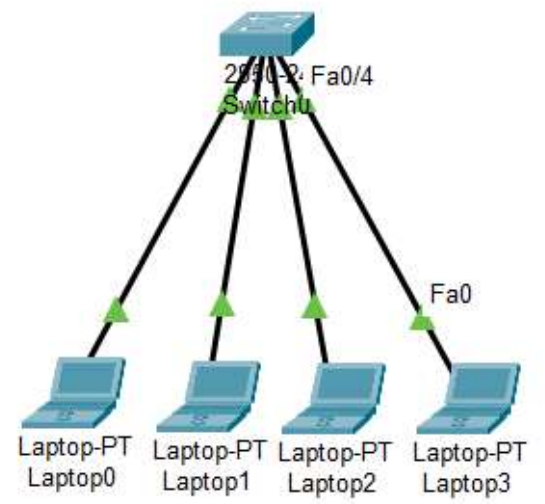
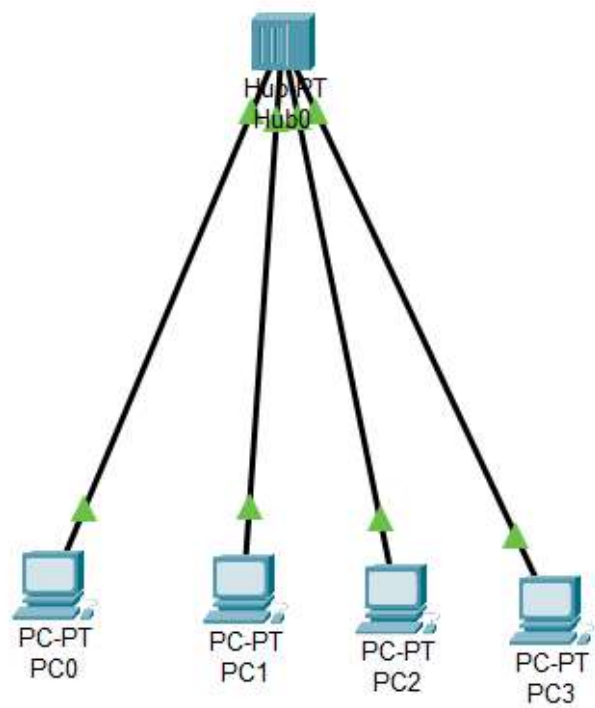
Output

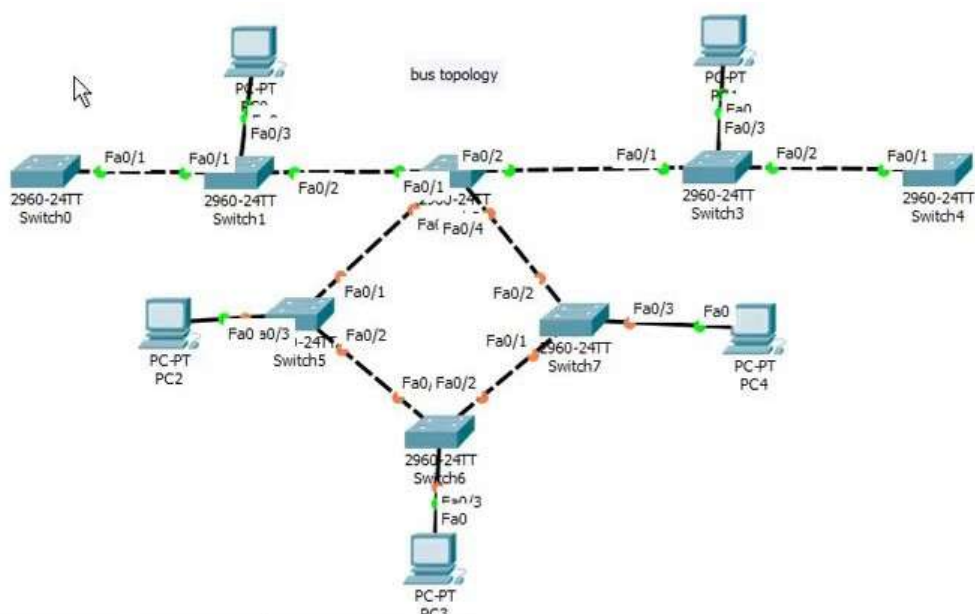
Clear

Enter the data stream (binary, max 99 bits): 101101
Original data: 101101
Stuffed data: 101101

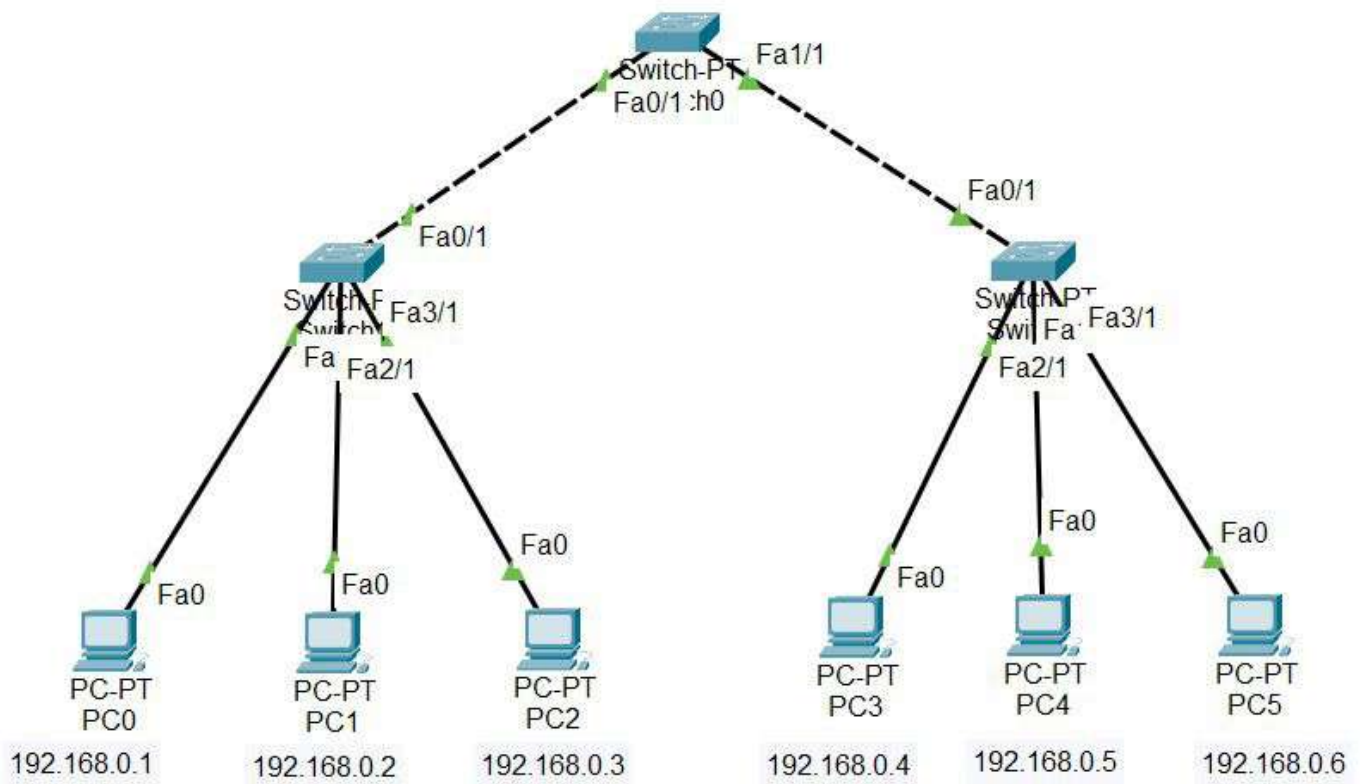
=== Code Execution Successful ===

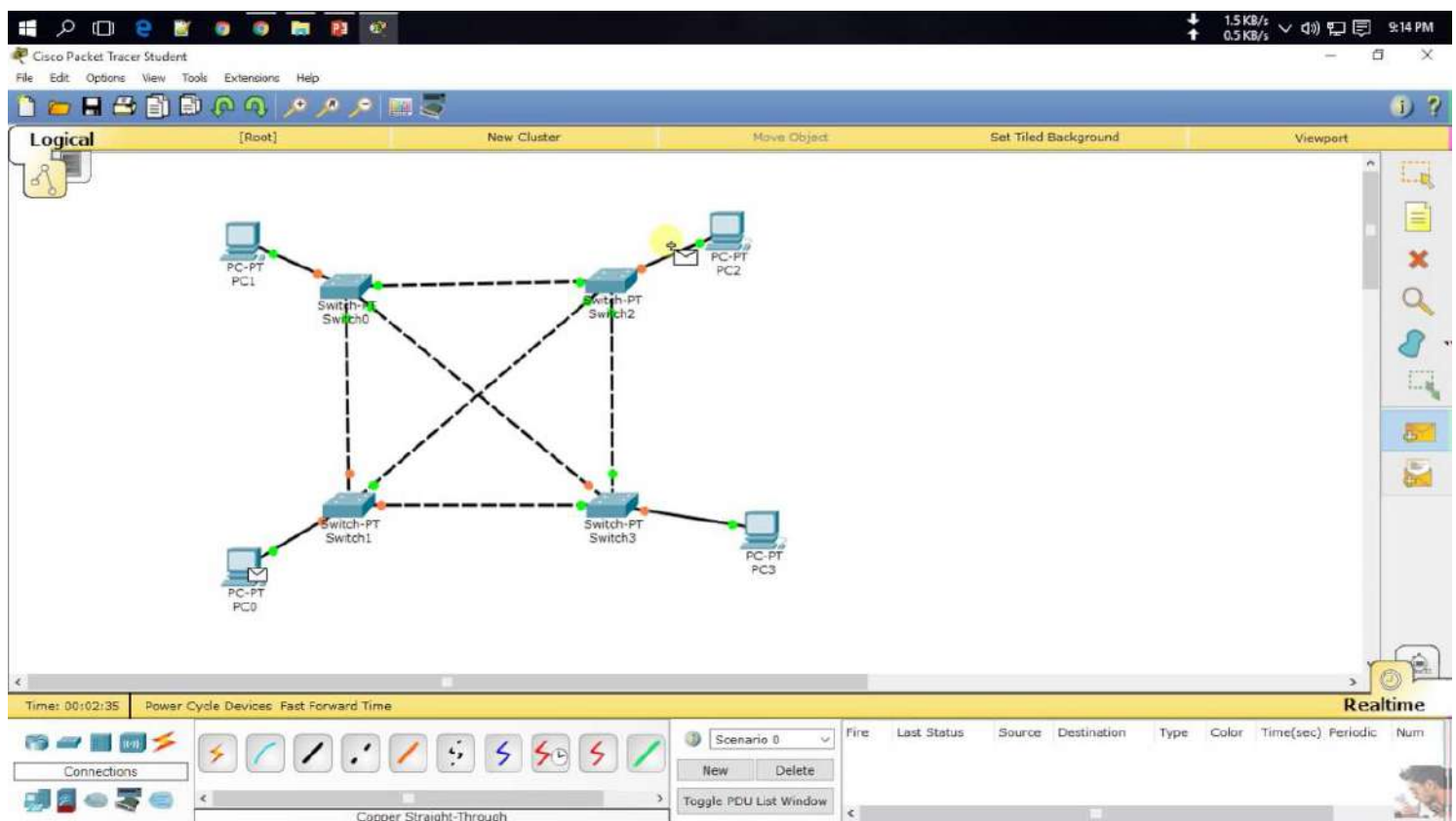


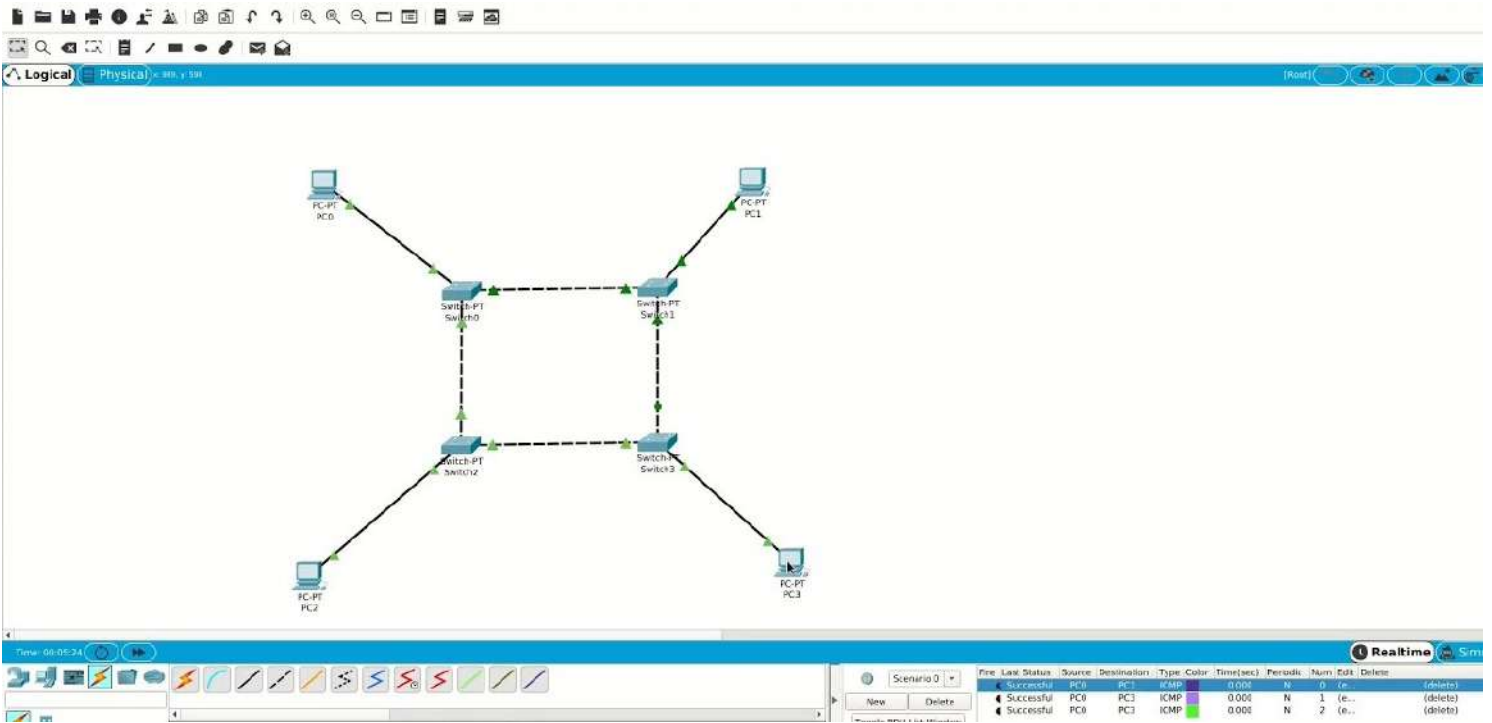




Fast Forward Time
Scenario 0
Fire
Last Status
Source
Destination
Type
Color
Time

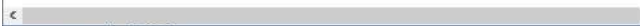
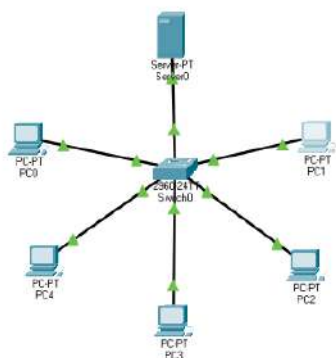








Logical Physical s: 115, t: 344 [Root]

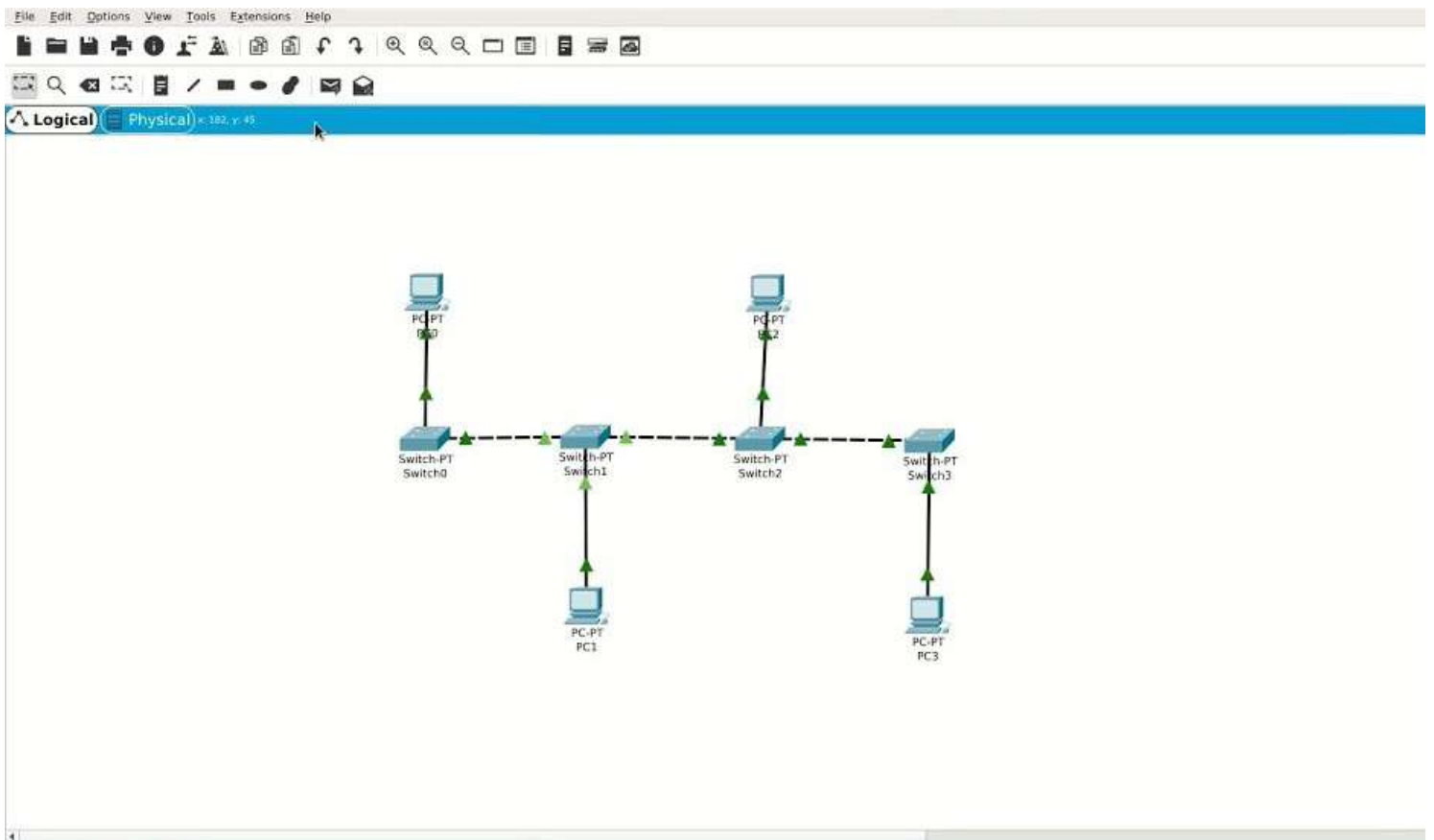


Time: 00:04:54

Realtime



Scenario 0 File Last Status Source Destination Type Color Time(sec) Periodic Num Edit



File Edit Options View Tools Extensions Help

Logical Rack [Road] New Cluster Place Object Set Tiled Background Viewport Environment: 12:50:00

```
graph TD; Hub0[Hub0] --- PC1[PC1]; Hub0 --- PC2[PC2]; Hub0 --- PC3[PC3]; Hub0 --- PC4[PC4]; Hub0 --- PC5[PC5]; Hub0 --- PC6[PC6]; Hub0 --- PC7[PC7];
```

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type	Info
	0.000	-	PC3	ARP	
	0.001	PC3	Hub0	ICMP	
	0.001	PC3	Hub0	ARP	
	0.002	Hub0	PC3	ARP	
	0.002	Hub0	PC4	ARP	
	0.002	Hub0	PC5	ARP	
	0.002	Hub0	PC6	ARP	
	0.002	Hub0	PC1	ARP	
	0.002	Hub0	PC2	ARP	

Reset Simulation ☒ Constant Delay Captured tot. 0.002 s

Play Controls

Back Auto Capture / Play Capture / Forward

Event List Filters - Visible Events

ACL Filter, ARP, BGP, CDP, DHCP, DHCPv6, DNS, DTP, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, ISE, LACP, LLDP, NTP, NETFLOW, NTP, OSPF, OSPFv6, PAgg, POP3, FTP, RADIUS, RDP, RDPv6, RTP, SCCP, SMTP, SNMP, SSH, STP, STPv6, TACACS, TCP, TFTP, Telnet, UDP, VTP

Edit Filters Show AllNone

Time: 00:03:47.078 Power Cycle Devices PLAY CONTROLS Back Auto Capture / Play Capture / Forward

Event List Simulation

FileEditOptionsViewToolsExtensionsWindowHelp

LogicalPhysicalx: 1204, y: 459

Port Status Summary Table for Server0

Device Name: Server0
Device Model: Server-PT
PortLinkIP AddressIPv6 Address
FastEthernet0Up192.163.11.4/24<not set>
Gateway:<not set>
DNS Server:<not set>
Line Number:<not set>
Physical Location: Intercity > Home City > Corporate Office > Mt
Refresh

ARP Table for Server0

IP Address	Hardware Address	Interface
192.163.11.2	0001.C070.06BB	FastEthernet0

DNS Cache Table for Server0

Name	Record Type	Record Value	Time stamp
------	-------------	--------------	------------

192.163.11.01

PC-PT
PC0

192.163.11.94

Server-PT
Server0

192.163.11.02

PC-PT
PC1

192.163.11.03

PC-PT
PC2

Switch-PT
Switch0

Simulation Panel

Event List

Vis	Time(sec)	Last Device	At Device
-----	-----------	-------------	-----------

Reset SimulationConstant DelayCaptured to: 450.221 s

Play Controls

Event List Filters - Visible Events

ARP

Edit FiltersShow All/None

Event ListRealtimeSimulation

FileLast StatusSourceDestinationTypeColorTime(sec)PeriodicNumEditDelete

Scenario 1NewDeleteToggle PDU List Window

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x:1602 y:387

Root 15:25:00

Routing Table for Router0

Type	Network	Port	Next Hop IP	Metric
C	192.163.1.0/24	FastEthernet0/1	—	0/0
C	192.163.2.0/24	FastEthernet0/0	—	0/0

Routing Table for Router1

Type	Network	Port	Next Hop IP	Metric
S	192.163.1.0/24	—	192.163.2.3	1/0
C	192.163.2.0/24	FastEthernet0/1	—	0/0
C	192.163.4.0/24	FastEthernet0/0	—	0/0

Time: 25:45:24

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)	
Successful	PC0	PC1	ICMP		0.000	N	1	(edit)	(delete)	
Successful	PC1	PC0	ICMP		0.000	N	2	(edit)	(delete)	
Successful	PC2	PC3	ICMP		0.000	N	3	(edit)	(delete)	

Copper Cross-Over

Realtime Simulation

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 999, y: 1145 Root 04:36:00

MAIN SERVER
192.163.11.5
Server-PT Server0

PC-PT PC0
CLINT DNS
192.183.11.1

PC-PT PC1
NTA CLINT
192.163.11.4

PC-PT PC2
FB CLINT
192.163.11.2

PC-PT PC3
IRC CLINT
192.163.11.3

2960-24 Switch0

PC1

Physical Config Desktop Programming Attributes

Web Browser

< > URL: <http://www.google.com> Go Stop

HELLO GUYS HOW ARE YOU ALL

PC2

Physical Config Desktop Programming Attributes

MAIL BROWSER

Mails

Compose Reply Receive Delete Configure

	From	Subject	Receive
1	mahesh@gm...	hi	Thu Sep 12 2024 13:16:20

hi
mahesh@gmail.com
Sent: Thu Sep 12 2024 13:16:20
welcome

Time: 09:55:42

Scenario 0

New Delete

Toggle PDU List Window

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

Copper Straight-Through

Realtime Simulation

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical

Physical

x: 932, y: 434

Root

01:30:30

SR4433

Router0

PC-PT

PC0

PC-PT

PC2

PC2

Physical Config Desktop Programming Attributes

Command Prompt

Cisco Packet Tracer PC Command Line 1.0

C:\>ping 192.163.11.1

Pinging 192.163.11.1 with 32 bytes of data:

Request timed out.

Request timed out.

Request timed out.

Request timed out.

Ping statistics for 192.163.11.1:

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

C:\>

Time: 01:30:30

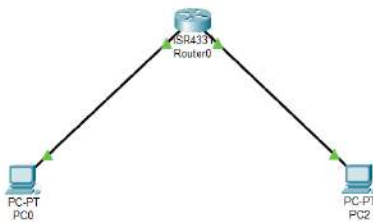
Realtime Simulation

Scenario 0

New Delete

Toggle PDU List Window

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



```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.163.11.1

Pinging 192.163.11.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.163.11.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
```

Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

tcp

No.	Time	Source	Destination	Protocol	Length	Info
46	13.429070	2409:40f4:3f:615a:1...	2404:6800:4007:826:...	TCP	75	61404 → 443 [ACK] Seq=1 Ack=1 Win=256 Len=1
49	13.467240	2404:6800:4007:826:...	2409:40f4:3f:615a:1...	TCP	86	443 → 61404 [ACK] Seq=1 Ack=2 Win=278 Len=0 SLE=1 SRE=2
56	14.563612	157.240.192.55	192.168.133.237	TCP	443	80 → 51029 [PSH, ACK] Seq=2120 Ack=277 Win=277 Len=389
57	14.579178	192.168.133.237	157.240.192.55	TCP	123	51029 → 80 [PSH, ACK] Seq=277 Ack=2509 Win=258 Len=69
58	14.615349	157.240.192.55	192.168.133.237	TCP	54	80 → 51029 [ACK] Seq=2509 Ack=346 Win=277 Len=0
79	15.707500	157.240.192.55	192.168.133.237	TCP	459	80 → 51029 [PSH, ACK] Seq=2509 Ack=346 Win=277 Len=405
80	15.716634	192.168.133.237	157.240.192.55	TCP	123	51029 → 80 [PSH, ACK] Seq=346 Ack=2914 Win=257 Len=69
81	15.758518	157.240.192.55	192.168.133.237	TCP	54	80 → 51029 [ACK] Seq=2914 Ack=415 Win=277 Len=0
84	16.920164	157.240.192.55	192.168.133.237	TCP	459	80 → 51029 [PSH, ACK] Seq=2914 Ack=415 Win=277 Len=405
85	16.975029	192.168.133.237	157.240.192.55	TCP	54	51029 → 80 [ACK] Seq=415 Ack=3319 Win=255 Len=0
86	17.069677	192.168.133.237	157.240.192.55	TCP	123	51029 → 80 [PSH, ACK] Seq=415 Ack=3319 Win=255 Len=69
87	17.091399	157.240.192.55	192.168.133.237	TCP	54	80 → 51029 [ACK] Seq=3319 Ack=484 Win=277 Len=0
90	18.739479	157.240.192.55	192.168.133.237	TCP	974	80 → 51029 [PSH, ACK] Seq=3319 Ack=484 Win=277 Len=920
91	18.784072	192.168.133.237	157.240.192.55	TCP	54	51029 → 80 [ACK] Seq=484 Ack=4239 Win=258 Len=0
92	18.849470	192.168.133.237	157.240.192.55	TCP	123	51029 → 80 [PSH, ACK] Seq=484 Ack=4239 Win=258 Len=69
93	18.927143	157.240.192.55	192.168.133.237	TCP	54	80 → 51029 [ACK] Seq=4239 Ack=553 Win=277 Len=0
94	19.691878	157.240.192.55	192.168.133.237	TCP	445	80 → 51029 [PSH, ACK] Seq=4239 Ack=553 Win=277 Len=391
95	19.702775	192.168.133.237	157.240.192.55	TCP	123	51029 → 80 [PSH, ACK] Seq=553 Ack=4630 Win=257 Len=69
96	19.753031	157.240.192.55	192.168.133.237	TCP	54	80 → 51029 [ACK] Seq=4630 Ack=622 Win=277 Len=0
97	19.918886	2409:40f4:3f:615a:1...	2405:200:1630:c8e:1...	TCP	75	51105 → 443 [ACK] Seq=1 Ack=1 Win=254 Len=1
98	19.962762	2405:200:1630:c8e:1...	2409:40f4:3f:615a:1...	TCP	86	443 → 51105 [ACK] Seq=1 Ack=2 Win=501 Len=0 SLE=1 SRE=2
100	20.447016	2409:40f4:3f:615a:1...	2405:200:1630:181:1...	TCP	74	61392 → 80 [FIN, ACK] Seq=1 Ack=1 Win=257 Len=0
101	20.447235	2409:40f4:3f:615a:1...	2404:6800:4007:81f:1...	TCP	74	61393 → 80 [FIN, ACK] Seq=1 Ack=1 Win=257 Len=0

Frame 57: 123 bytes on wire (984 bits), 123 bytes captured (984 bits) on interface \Device\NPF...
Ethernet II, Src: Intel_de:c3:e9 (f4:06:69:de:c3:e9), Dst: 2a:99:57:fb:7f:2a (2a:99:57:fb:7f:2a)
Internet Protocol Version 4, Src: 192.168.133.237, Dst: 157.240.192.55
Transmission Control Protocol, Src Port: 51029, Dst Port: 80, Seq: 277, Ack: 2509, Len: 69
Source Port: 51029
Destination Port: 80
[Stream index: 3]
[Stream Packet Number: 20]
[Conversation completeness: Incomplete (12)]
[TCP Segment Len: 69]
Sequence Number: 277 (relative sequence number)
Sequence Number (raw): 2860272832
[Next Sequence Number: 346 (relative sequence number)]
Acknowledgment Number: 2509 (relative ack number)
Acknowledgment number (raw): 3448976110

Acknowledgment Number (tcp.ack), 4 bytes

0000 2a 99 57 fb 7f 2a fa 06 69 de c3 e9 08 00 45 00 *W...i...E:
0010 00 6d d3 63 40 00 80 06 82 69 c0 a8 85 ed 9d f0 m.c@...i...:
0020 c0 37 c7 55 00 50 aa 7c 4c c0 cd 93 32 ee 50 18 7.U.P.|L...2P.
0030 01 02 61 03 00 00 33 46 0d 0a 00 00 3c 0d 09 c3 ..a...3F...<...
0040 df c2 99 8b 6e d0 9a 69 ea f1 8b 57 a7 5f bc fcn.i...W...
0050 5f 01 df f4 4c 66 66 83 57 4b c3 83 21 a4 66 b6 ...Lff.WK...!f
0060 b6 e6 1d 09 9b 70 49 93 60 b2 d8 4c ae 98 10 5cpI...L...\
0070 71 fa 10 42 5b 4f 07 86 d1 0d 0a q.B[0... ..

Packets: 215 · Displayed: 113 (52.6%) · Dropped: 0 (0.0%) Profile: Default

36°C Partly sunny 2:11 PM

Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

http

No.	Time	Source	Destination	Protocol	Length	Info
13	0.353035	192.168.133.237	210.148.85.30	HTTP	204	GET /api/check/online?t=1726303882 HTTP/1.1
16	0.529424	210.148.85.30	192.168.133.237	HTTP	356	HTTP/1.1 200 OK (image/jpeg)
74	30.528538	192.168.133.237	210.148.85.30	HTTP	204	GET /api/check/online?t=1726303912 HTTP/1.1
84	30.739020	192.168.133.237	210.148.85.30	HTTP	204	GET /api/check/online?t=1726303912 HTTP/1.1
86	31.011661	210.148.85.30	192.168.133.237	HTTP	352	HTTP/1.1 200 OK (image/jpeg)
99	37.042760	2409:40f4:3f:615a:3...	2606:2800:247:57cb:...	HTTP	328	GET /DigiCertGlobalRootG2.crl HTTP/1.1
101	37.075503	2606:2800:247:57cb:...	2409:40f4:3f:615a:3...	HTTP	358	HTTP/1.1 304 Not Modified
110	37.154193	2409:40f4:3f:615a:3...	2405:200:1630:181:...	HTTP	301	GET / HTTP/1.1
112	37.201587	2405:200:1630:181:...	2409:40f4:3f:615a:3...	HTTP	337	HTTP/1.1 304 Not Modified
121	37.320425	2409:40f4:3f:615a:3...	2404:6800:4007:81f:...	HTTP	276	GET /r/gsr1.crl HTTP/1.1
122	37.354487	2404:6800:4007:81f:...	2409:40f4:3f:615a:3...	HTTP	296	HTTP/1.1 304 Not Modified
123	37.367690	2409:40f4:3f:615a:3...	2404:6800:4007:81f:...	HTTP	274	GET /r/r4.crl HTTP/1.1
126	37.416038	2404:6800:4007:81f:...	2409:40f4:3f:615a:3...	HTTP	296	HTTP/1.1 304 Not Modified
149	61.185148	192.168.133.237	210.148.85.30	HTTP	204	GET /api/check/online?t=1726303943 HTTP/1.1
151	61.345293	210.148.85.30	192.168.133.237	HTTP	356	HTTP/1.1 200 OK (image/jpeg)
220	91.341552	192.168.133.237	210.148.85.30	HTTP	204	GET /api/check/online?t=1726303973 HTTP/1.1
230	91.937053	192.168.133.237	210.148.85.30	HTTP	204	GET /api/check/online?t=1726303973 HTTP/1.1
234	92.117726	210.148.85.30	192.168.133.237	HTTP	364	HTTP/1.1 200 OK (image/jpeg)
352	124.004583	192.168.133.237	91.108.56.200	HTTP	290	POST /api HTTP/1.1 (application/x-www-form-urlencoded)
372	124.086193	192.168.133.237	91.108.23.100	HTTP	190	POST /api HTTP/1.1 (application/x-www-form-urlencoded)
392	124.282705	192.168.133.237	91.108.23.100	HTTP	94	POST /api HTTP/1.1 (application/x-www-form-urlencoded)
397	124.303011	192.168.133.237	91.108.23.100	HTTP	346	POST /api HTTP/1.1 (application/x-www-form-urlencoded)
414	124.491923	2409:40f4:3f:615a:3...	64:ff9b:312c:74e7	HTTP	185	GET /connecttest.txt HTTP/1.1

Frame 86: 352 bytes on wire (2816 bits), 352 bytes captured (2816 bits) on interface \Device\NPF...

Ethernet II, Src: 2a:99:57:fb:7f:2a (2a:99:57:fb:7f:2a), Dst: Intel_de:c3:e9 (f4:06:69:de:c3:e9)

Internet Protocol Version 4, Src: 210.148.85.30, Dst: 192.168.133.237

Transmission Control Protocol, Src Port: 80, Dst Port: 62731, Seq: 1, Ack: 151, Len: 298

Hypertext Transfer Protocol

HTTP/1.1 200 OK\r\n

Connection: keep-alive\r\n

Content-Type: image/jpeg\r\n

Date: Sat, 14 Sep 2024 08:51:53 GMT\r\n

Flow-Level: 3\r\n

Http-X-Isis-Logid: 212245776715368825\r\n

Logid: 212245776715368825\r\n

Server: nginx\r\n

Yld: 212245776715368825\r\n

Yme: ZIGW+Ss3QEsTdTcdUmr/tGIMvuUZSx3owpNwyGAjq2I\r\n

Packets: 2076 · Displayed: 34 (1.6%) · Dropped: 0 (0.0%) Profile: Default

36°C Partly sunny 2:29 PM

Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

arp

No.	Time	Source	Destination	Protocol	Length	Info
33	9.093294	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	Who has 192.168.133.237? Tell 192.168.133.88
34	9.093316	Intel_de:c3:e9	2a:99:57:fb:7f:2a	ARP	42	192.168.133.237 is at f4:06:69:de:c3:e9
90	36.036446	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	Who has 192.168.133.237? Tell 192.168.133.88
91	36.036491	Intel_de:c3:e9	2a:99:57:fb:7f:2a	ARP	42	192.168.133.237 is at f4:06:69:de:c3:e9
154	66.200420	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	Who has 192.168.133.237? Tell 192.168.133.88
155	66.200439	Intel_de:c3:e9	2a:99:57:fb:7f:2a	ARP	42	192.168.133.237 is at f4:06:69:de:c3:e9
172	81.816264	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	Who has 192.168.133.237? Tell 192.168.133.88
173	81.816302	Intel_de:c3:e9	2a:99:57:fb:7f:2a	ARP	42	192.168.133.237 is at f4:06:69:de:c3:e9
267	98.456565	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	Who has 192.168.133.237? Tell 192.168.133.88
268	98.456592	Intel_de:c3:e9	2a:99:57:fb:7f:2a	ARP	42	192.168.133.237 is at f4:06:69:de:c3:e9
269	98.932045	Intel_de:c3:e9	2a:99:57:fb:7f:2a	ARP	42	Who has 192.168.133.88? Tell 192.168.133.237
270	98.957925	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	192.168.133.88 is at 2a:99:57:fb:7f:2a
286	123.672507	Intel_de:c3:e9	Broadcast	ARP	42	Who has 192.168.133.88? Tell 192.168.133.237
289	123.735273	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	192.168.133.88 is at 2a:99:57:fb:7f:2a
291	123.743520	Intel_de:c3:e9	Broadcast	ARP	42	Who has 192.168.133.88? Tell 192.168.133.237
292	123.747919	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	192.168.133.88 is at 2a:99:57:fb:7f:2a
328	123.939106	Intel_de:c3:e9	Broadcast	ARP	42	Who has 192.168.133.237? (ARP Probe)
348	123.982209	Intel_de:c3:e9	Broadcast	ARP	42	Who has 192.168.133.88? Tell 192.168.133.237
350	123.984503	2a:99:57:fb:7f:2a	Intel_de:c3:e9	ARP	42	192.168.133.88 is at 2a:99:57:fb:7f:2a
369	124.085234	AzureWaveTec_8e:01:...	Broadcast	ARP	42	ARP Announcement for 192.168.133.219
468	124.939905	Intel_de:c3:e9	Broadcast	ARP	42	Who has 192.168.133.237? (ARP Probe)
538	125.931332	Intel_de:c3:e9	Broadcast	ARP	42	Who has 192.168.133.237? (ARP Probe)
734	126.934871	Intel_de:c3:e9	Broadcast	ARP	42	ARP Announcement for 192.168.133.237

Frame 90: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface \Device\NPF_{...} Ethernet II, Src: 2a:99:57:fb:7f:2a (2a:99:57:fb:7f:2a), Dst: Intel_de:c3:e9 (f4:06:69:de:c3:e9)

Address Resolution Protocol (request)

Hardware type: Ethernet (1)
Protocol type: IPv4 (0x0800)
Hardware size: 6
Protocol size: 4
Opcode: request (1)
Sender MAC address: 2a:99:57:fb:7f:2a (2a:99:57:fb:7f:2a)
Sender IP address: 192.168.133.88
Target MAC address: 00:00:00:00:00:00 (00:00:00:00:00:00)
Target IP address: 192.168.133.237

Packets: 2076 · Displayed: 34 (1.6%) · Dropped: 0 (0.0%) Profile: Default

36°C Partly sunny 2:29 PM

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical

Physical

Time: 00:52:41

Fan IoT0

SMARTPHONE-PT
Smartphone0

DLG100
Home Gateway0

Door IoT5

Light IoT9

Ar Conditioner IoT8

Smartphone0

Physical Config Desktop Programming Attributes

IoT Monitor

IoT Server - Devices

Home | Conditions | Editor | Log Out

IoT0 (PTT0810A764-)

Ceiling Fan

Status

Off High

IoT5 (PTT0810784T-)

Door

Open

Lock

Unlock

IoT9 (PTT0810949H-)

AC

On

IoT9 (PTT0810IZJF-)

Light

Status

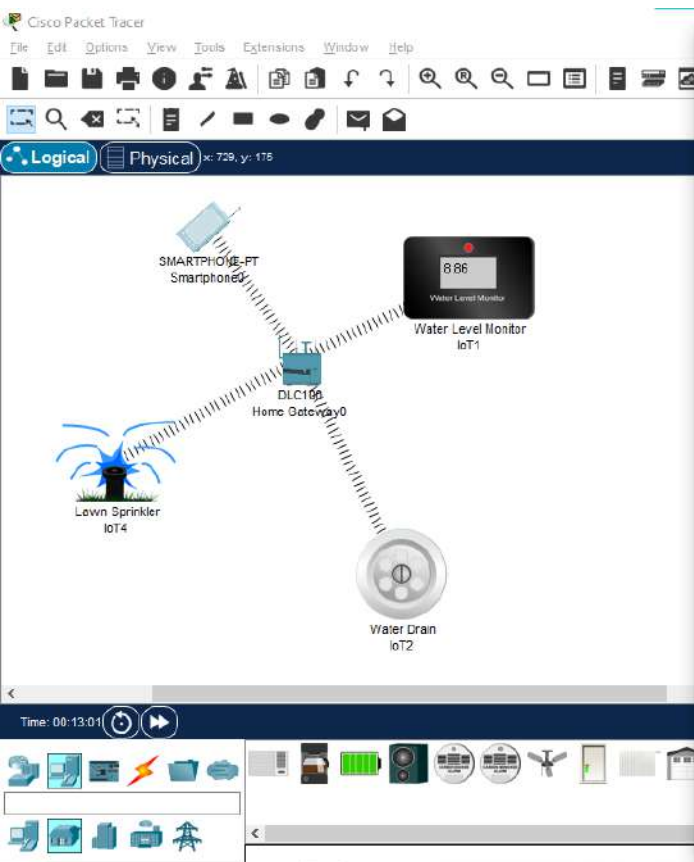
Dim On

Top

Search

35°C Mostly sunny

ENG 1:30 PM



Smartphone0

Physical Config Desktop Programming Attributes

IoT Monitor

IoT Server - Devices Home | Conditions | Editor | Log Out

- IoT4 (PTT0810HTVF-) Lawn Sprinkler
Status ■
- IoT2 (PTT0810Y1VB-) Water Drain
Status ■
- IoT1 (PTT08106DE3-) Water Level Monitor
Water Level 8.9 cm

☐ Top

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 1594, y: 282

Time: 00:53:03

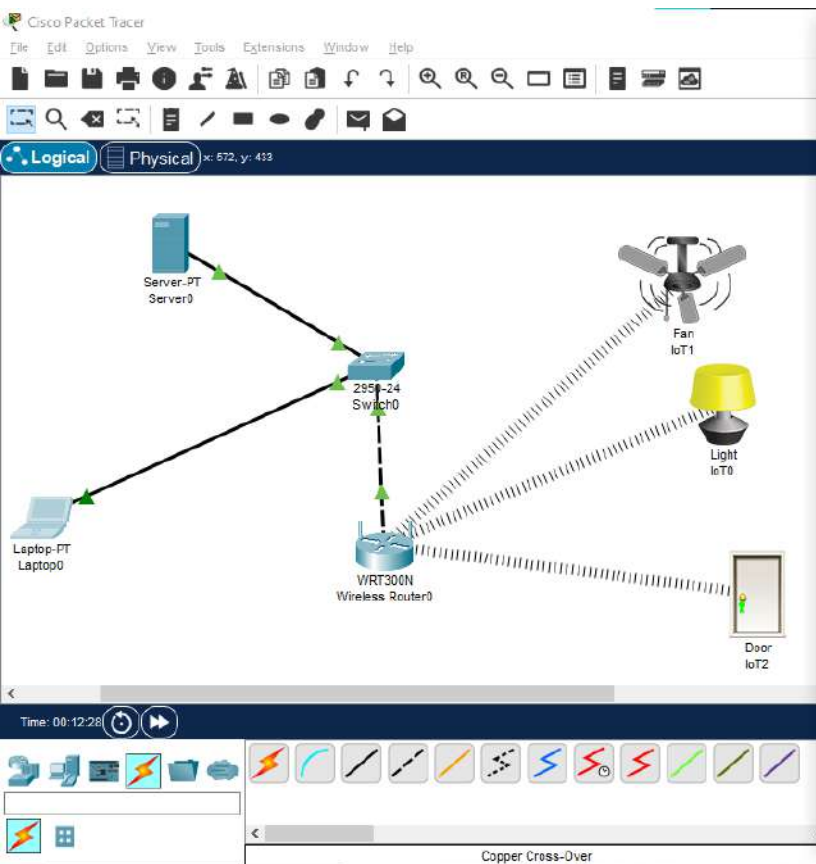
Smartphone0

IoT Monitor

IoT Server - Devices Home | Conditions | Editor | Log Out

- IoT0 (PTT0810A764-) Ceiling Fan
 - Status Off Low
- IoT5 (PTT0810784T-) Door
 - Open
 - Lock Lock
- IoT9 (PTT0810949H-) AC
 - On
- IoT9 (PTT0810IZJF-) Light
 - Status Off Dim

Top



Laptop0

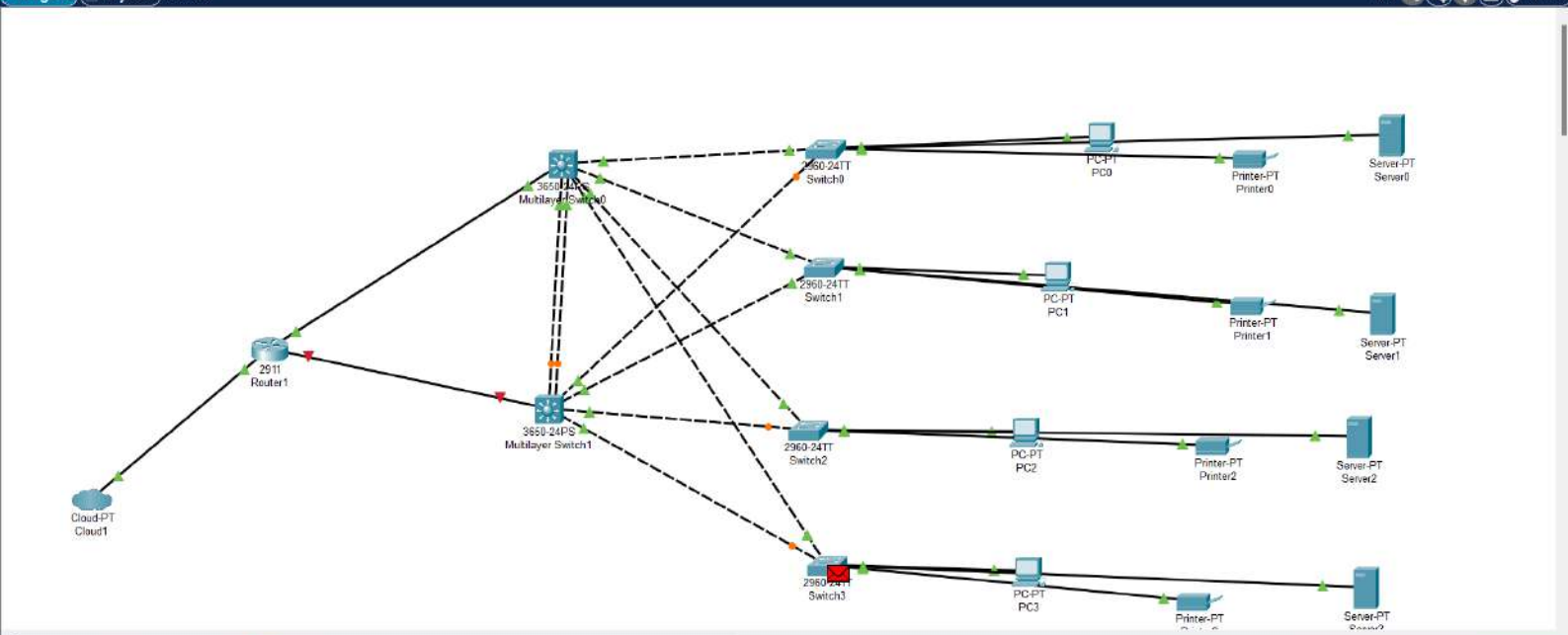
Physical Config Desktop Programming Attributes

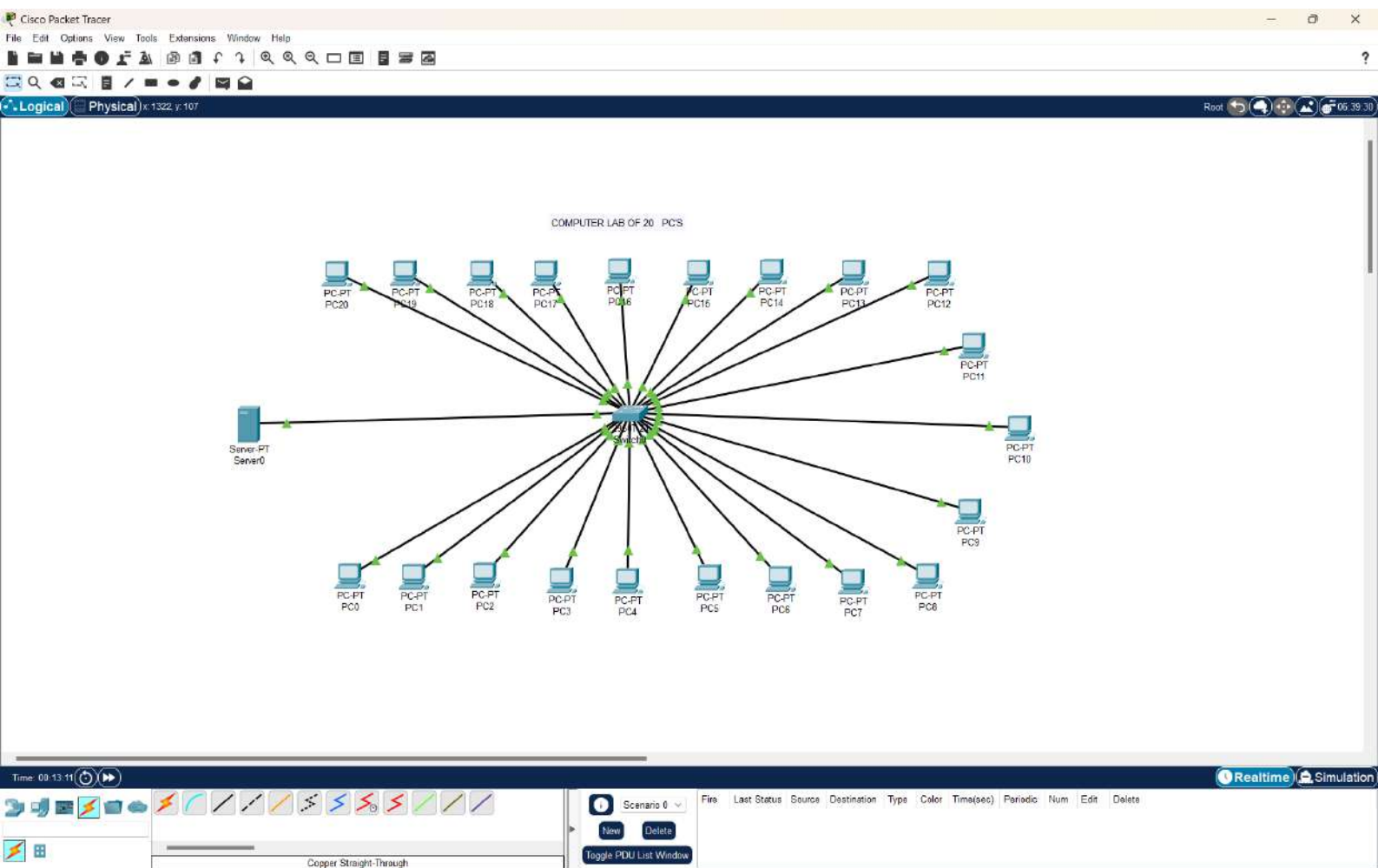
IoT Monitor

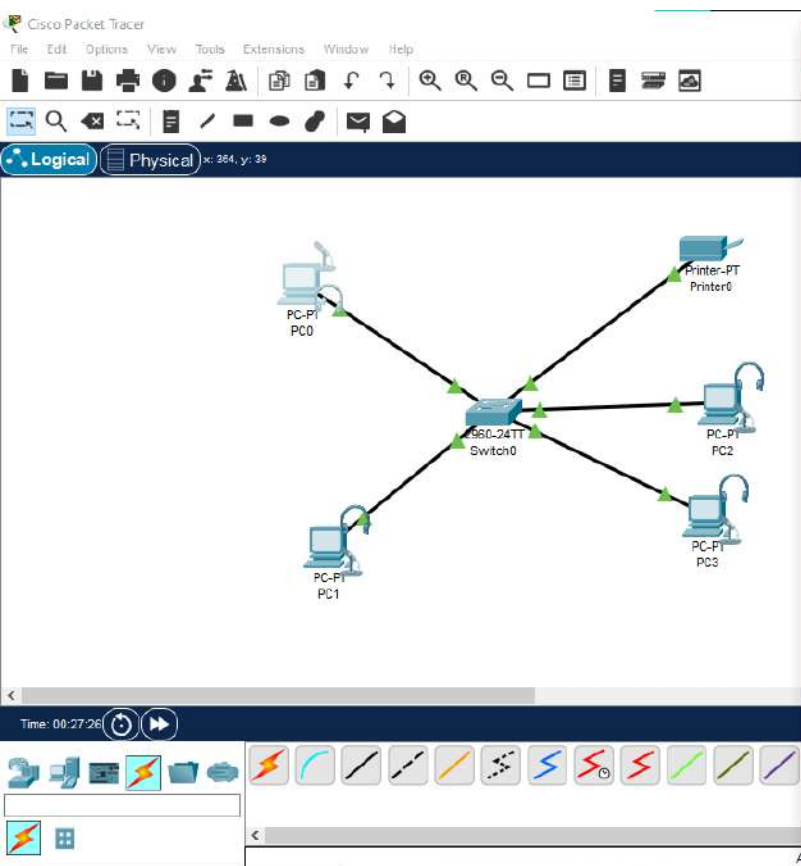
IoT Server - Devices Home Conditions Editor Log

- IoT1 (FTT0810J3LW-) Ceiling Fan
Status: Off Low
- IoT0 (FTT0810P78U-) Light
Status: Dim On
- IoT2 (FTT0810BLD1-) Door
Open: Lock

Top







PC0

Physical Config Desktop Programming Attributes

Command Prompt

```
Reply from 10.10.10.1: bytes=32 time<1ms TTL=128
Reply from 10.10.10.1: bytes=32 time<1ms TTL=128
Reply from 10.10.10.1: bytes=32 time<1ms TTL=128
Reply from 10.10.10.1: bytes=32 time<1ms TTL=128

Ping statistics for 10.10.10.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 10.10.10.4

Pinging 10.10.10.4 with 32 bytes of data:

Reply from 10.10.10.4: bytes=32 time<1ms TTL=128
Reply from 10.10.10.4: bytes=32 time<1ms TTL=128
Reply from 10.10.10.4: bytes=32 time<1ms TTL=128
Reply from 10.10.10.4: bytes=32 time<1ms TTL=128

Ping statistics for 10.10.10.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 10.10.10.2

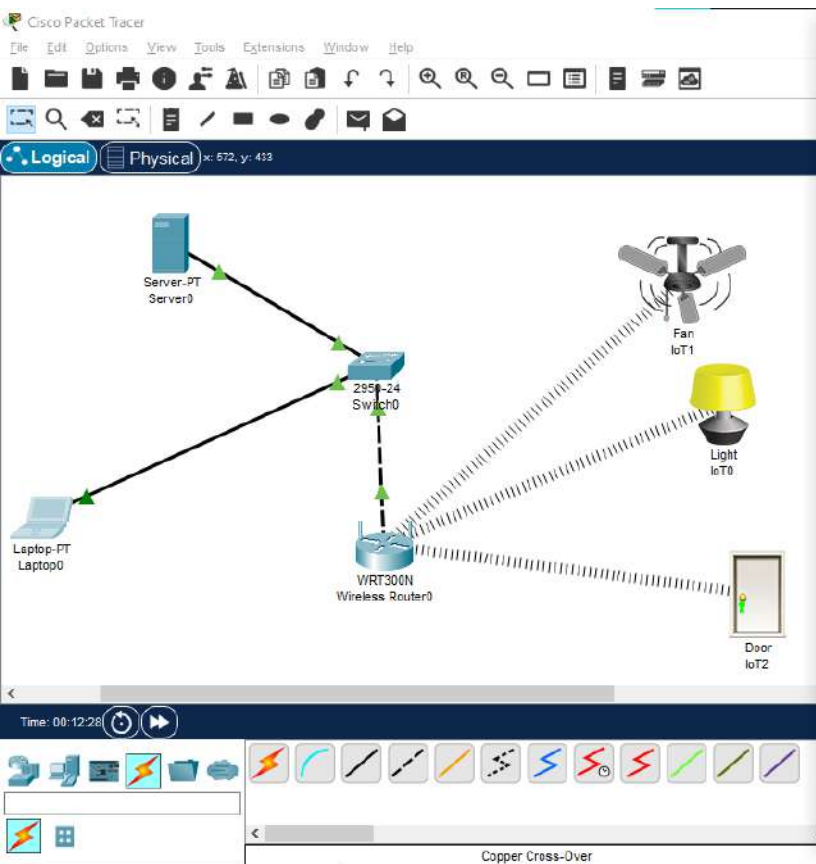
Pinging 10.10.10.2 with 32 bytes of data:

Reply from 10.10.10.2: bytes=32 time<1ms TTL=128
Reply from 10.10.10.2: bytes=32 time<1ms TTL=128
Reply from 10.10.10.2: bytes=32 time<1ms TTL=128
Reply from 10.10.10.2: bytes=32 time<1ms TTL=128

Ping statistics for 10.10.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

☐ Top



Laptop0

Physical Config Desktop Programming Attributes

IoT Monitor

IoT Server - Devices Home Conditions Editor Log

- IoT1 (FTT0810J3LW-) Ceiling Fan
Status: Off Low
- IoT0 (FTT0810P78U-) Light
Status: Dim On
- IoT2 (FTT0810BLD1-) Door
Open: Lock

Top

Logical Physical x 643, y 114

2940-24TT SW1 192.168.1.2 Fa0/1 192.168.1.2 Fa0/0 2811 R1

SW1

Physical Config CLI Attributes

IOS Command Line Interface

```
Port description: FastEthernet0/0
System Name: R1
System Description:
Cisco IOS Software, 2800 Software (C2800NM-ADVIPSERVICESK9-M), Version 15.1(4)M4, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2012 by Cisco Systems, Inc.
Compiled Thurs 5-Jan-12 15:41 by pt_team
Time remaining: 90 seconds
System Capabilities: R
Enabled Capabilities: R
Management Addresses - not advertised
Auto Negotiation - supported, enabled
Physical media capabilities:
  100baseT(FD)
  100baseT(HD)
Media Attachment Unit type: 10
Vlan ID: 1

Total entries displayed: 1
SW1#
SW1#sh lldp en
SW1#sh lldp entry *
% Invalid input detected at '' marker.
SW1#
```

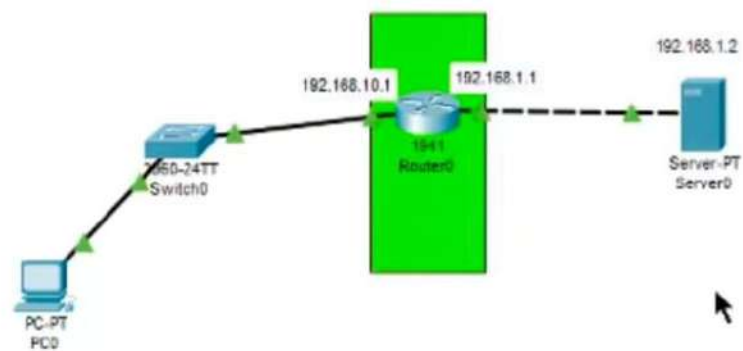
Copy Paste

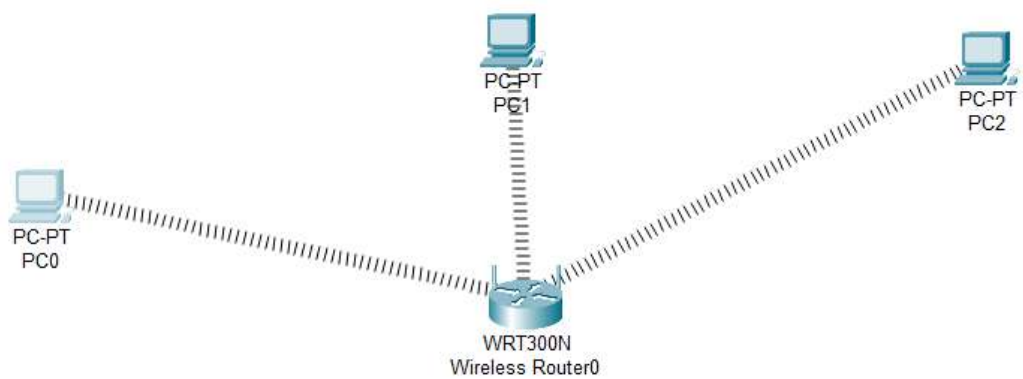
Time 00:07:48

Scenario 0

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

Realtime Simulation

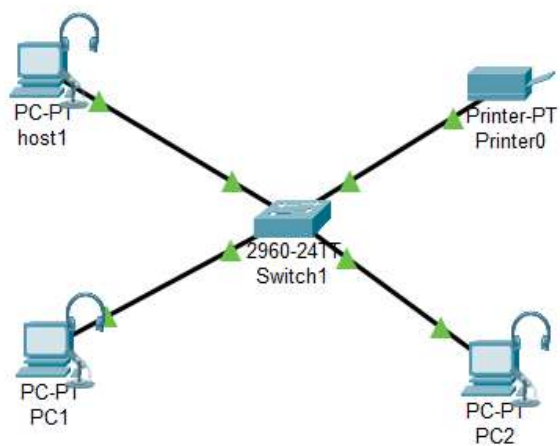




File Edit Options View Tools Extensions Window Help



Logical Physical x: 67, y: 1



The image shows a Wireshark packet capture of ARP requests. The packet list pane displays 10 packets, all of which are ARP requests from 192.168.162.47 to 192.168.162.90. The packet details pane for packet 155 shows the following structure:

- Frame 155: 42 bytes captured on interface 0
- Ethernet II, Src: 08:00:06:04:00:01, Dst: 08:00:06:04:00:01
- Address Resolution Protocol, Op: 1

The packet bytes pane shows the raw data of the packet, which is a standard ARP request format.

Capturing from Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

udp

No.	Source	Destination	Protocol	Length	Info
1	192.168.162.47	192.168.162.90	DNS	78	Standard query 0xc813 AAAA www.googleapis.com
2	192.168.162.90	192.168.162.47	DNS	334	Standard query response 0xc813 AAAA www.googleapis.com A 142.250.192.170 A 172.217.24.74 A 142.250.76.74 A 142.250.206.106 A 142.251.43.170
3	192.168.162.47	192.168.162.90	DNS	190	Standard query response 0xc813 AAAA www.googleapis.com AAAA 2404:6800:4002:813::200a AAAA 2404:6800:4002:814::200a AAAA 2404:6800:4002:815::200a
4	192.168.162.47	192.168.162.90	DNS	70	Standard query 0x8ebc A o.pki.goog
5	192.168.162.90	192.168.162.47	DNS	70	Standard query response 0x8ebc A o.pki.goog
6	192.168.162.47	192.168.162.90	DNS	121	Standard query response 0x8ebc A o.pki.goog CNAME pki-goog.l.google.com A 142.250.67.67
7	192.168.162.90	192.168.162.47	DNS	133	Standard query response 0x8ebc A o.pki.goog CNAME pki-goog.l.google.com AAAA 2404:6800:4002:813::200a
8	192.168.162.47	192.168.162.90	DNS	85	Standard query 0x6455 A login.microsoftonline.com
9	192.168.162.90	192.168.162.47	DNS	319	Standard query response 0x6455 A login.microsoftonline.com CNAME login.mso.msidentity.com CNAME ak.privatelink.msidentity.com CNAME www.msidentity.com
10	192.168.162.47	192.168.162.90	DNS	83	Standard query 0x85ec A filedownload.lenovo.com
11	192.168.162.90	192.168.162.47	DNS	226	Standard query response 0x85ec A filedownload.lenovo.com CNAME filedownload.lenovo.com.akadns.net CNAME filedownload.lenovo.com.edgekey.net
12	192.168.162.47	192.168.162.90	DNS	238	Standard query response 0xaca4 AAAA filedownload.lenovo.com CNAME filedownload.lenovo.com.akadns.net CNAME filedownload.lenovo.com.edgekey.net
13	192.168.162.90	192.168.162.47	DNS	78	Standard query 0x20b9 A msg.csw.lenovo.com
14	192.168.162.47	192.168.162.90	DNS	78	Standard query 0x6353 AAAA msg.csw.lenovo.com
15	192.168.162.90	192.168.162.47	DNS	171	Standard query response 0x20b9 A msg.csw.lenovo.com CNAME msg-csw-lenovo.com A 108.158.251.69 A 108.158.251.106 A 108.158.251.25 A 108.158.251.107
16	192.168.162.47	192.168.162.90	DNS	219	Standard query response 0x6353 AAAA msg.csw.lenovo.com CNAME msg-csw-lenovo.com AAAA 64:ff9b::6c9e:fb6d AAAA 64:ff9b::6c9e:fb45 AAAA 64:ff9b::6c9e:fb46
17	192.168.162.90	192.168.162.47	DNS	78	Standard query 0x6ee3 AAAA edge.microsoft.com
18	192.168.162.47	192.168.162.90	DNS	78	Standard query 0xf374 A edge.microsoft.com
19	192.168.162.90	192.168.162.47	DNS	202	Standard query response 0x6ee3 AAAA edge.microsoft.com CNAME edge-microsoft-com.ax-0002.ax-msedge.net CNAME ax-0002.ax-msedge.net AAAA 150.171.10.10
20	192.168.162.47	192.168.162.90	DNS	178	Standard query response 0xf374 A edge.microsoft.com CNAME edge-microsoft-com.ax-0002.ax-msedge.net CNAME ax-0002.ax-msedge.net A 150.171.10.10
21	192.168.162.90	192.168.162.47	DNS	179	Standard query response 0xa3d0 HTTPS edge.microsoft.com CNAME edge-microsoft-com.ax-0002.ax-msedge.net SOA ns1.ax-msedge.net

Frame 15: 78 byte on wire (60 captured)

Ethernet II, Src: Realtek (08:00:27:00:00:00), Dst: Realtek (08:00:27:00:00:00)

Internet Protocol Version 4, Src: 192.168.162.47, Dst: 192.168.162.90

User Datagram Protocol, Src Port: 54321, Dst Port: 53

Domain Name System Query, Standard query type A, QID: 0xc813, Name: www.googleapis.com, Length: 78

0000 2a d0 49 cb b6 74 9e a9 0f 5a f8 47 08 00 45 00 * I t - Z G E .
0010 00 40 45 34 00 00 80 11 00 00 c0 a8 a2 2f c0 a8 @F4 / .
0020 a2 5a db 89 00 35 00 2c c6 18 06 48 01 00 00 01 Z . 5 , . . H . . .
0030 00 00 00 00 00 00 03 77 77 77 0a 67 6f 67 6c w w w . g o o g l e
0040 65 61 70 69 73 03 63 6f ed 00 00 01 00 01 e a p i s . c o m

User Datagram Protocol: Protocol

Packets: 473 - Displayed: 24 (5.1%)

Profile: Default

Capturing from Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

icmpv6

No.	Time	Source	Destination	Protocol	Length	Info
319	11.875064	fe80::28d0:49ff:fec...	2409:40f4:39:6b68:2...	ICMPv6	86	Neighbor Solicitation for 2409:40f4:39:6b68:2558:48e3:8b41:1933 from 2a:d0:49:cb:b6:74
320	11.875300	2409:40f4:39:6b68:2...	fe80::28d0:49ff:fec...	ICMPv6	86	Neighbor Advertisement 2409:40f4:39:6b68:2558:48e3:8b41:1933 (sol, ovr) is at 9e:e9:0f:5a:f8:47
353	22.789958	fe80::6f70:76c6:354...	fe80::28d0:49ff:fec...	ICMPv6	86	Neighbor Solicitation for fe80::28d0:49ff:fecb:b674 from 9e:e9:0f:5a:f8:47
354	22.797320	fe80::28d0:49ff:fec...	fe80::6f70:76c6:354...	ICMPv6	78	Neighbor Advertisement fe80::28d0:49ff:fecb:b674 (rtr, sol)

Frame 319: 86 bytes on wire (688 bits) captured (86 bytes captured on interface) on interface 0

Ethernet II, Src: Realtek (08:00:27:3a:ff:fe), Dst: fe80::28d0:49ff:fecb:b674

Internet Protocol Version 6, Src: fe80::28d0:49ff:fecb:b674, Dst: 2409:40f4:39:6b68:2558:48e3:8b41:1933

Internet Control Message Protocol (Neighbor Solicitation), Src: fe80::28d0:49ff:fecb:b674, Dst: 2409:40f4:39:6b68:2558:48e3:8b41:1933

Neighbor Solicitation, Flags: Solicitation, Target Address: 2409:40f4:39:6b68:2558:48e3:8b41:1933, Source Address: fe80::28d0:49ff:fecb:b674