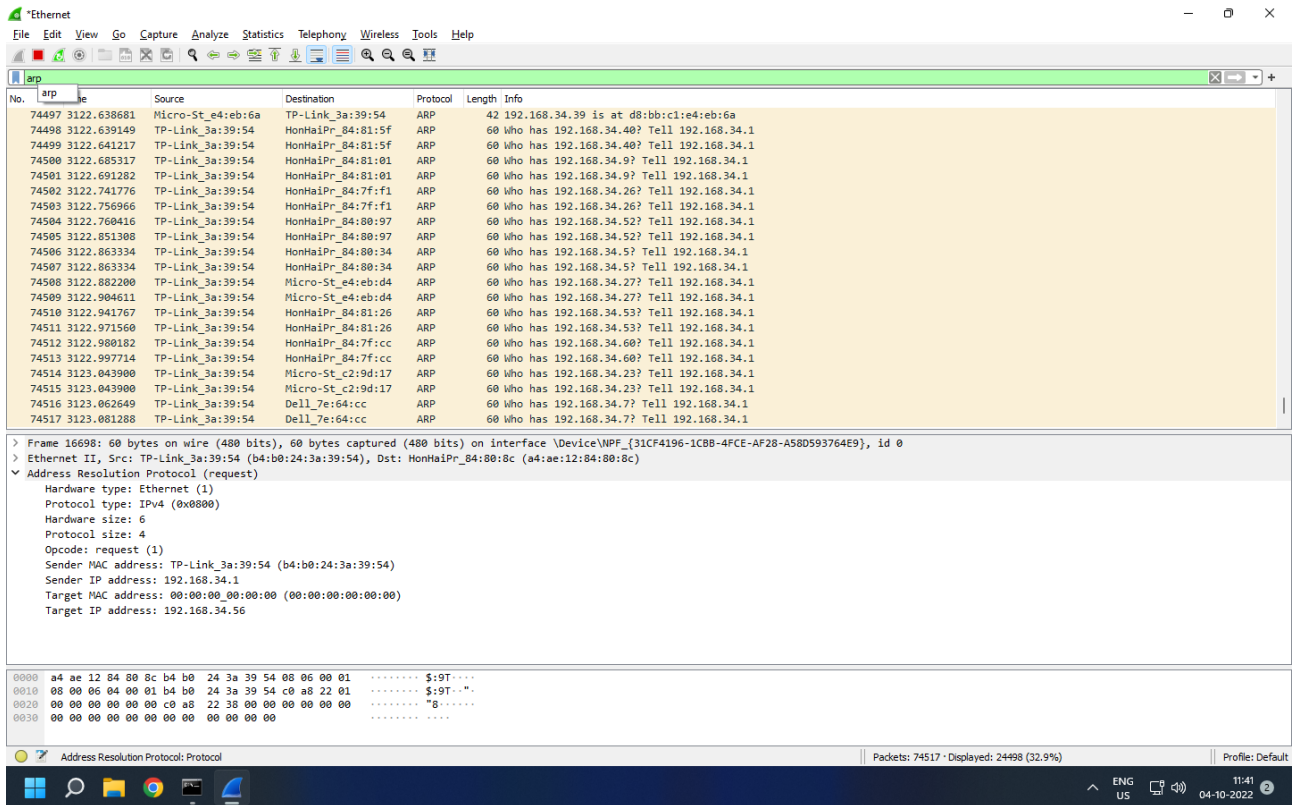


# Computer Networks

## Experiment - 9

### Outputs:-

### ARP:-



The image shows a Wireshark capture of ARP traffic. The top pane displays a list of 17 ARP requests. The bottom pane shows the details of the selected packet (No. 174517), which is an ARP request from 192.168.34.1 to 192.168.34.6. The packet structure is shown as a hex dump and a protocol tree.

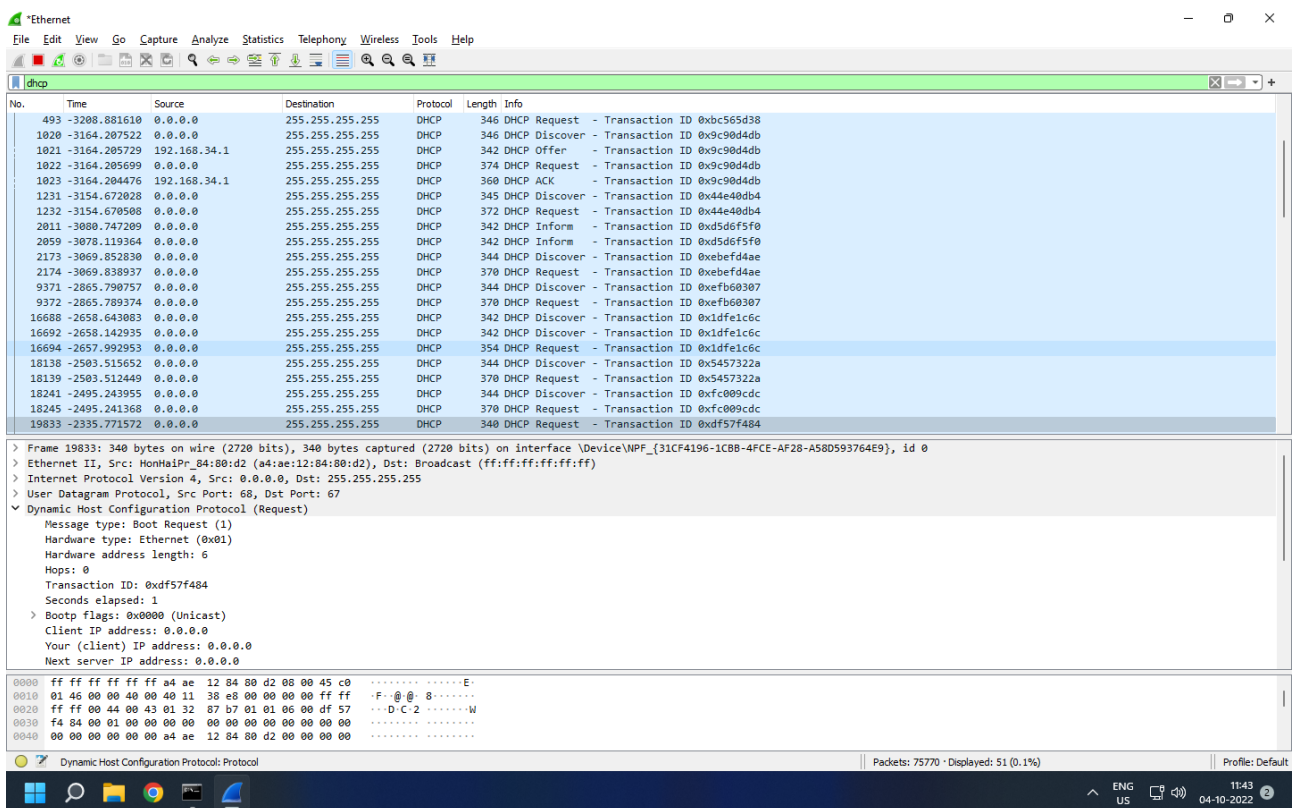
No.	Time	Source	Destination	Protocol	Length	Info
74497	3122.638681	Micro-St_e4:eb:6a	TP-Link_3a:39:54	ARP	42	192.168.34.39 is at d8:bb:c1:e4:eb:6a
74498	3122.639149	TP-Link_3a:39:54	HonHaiPr_84:81:5f	ARP	60	who has 192.168.34.40? Tell 192.168.34.1
74499	3122.641217	TP-Link_3a:39:54	HonHaiPr_84:81:5f	ARP	60	who has 192.168.34.40? Tell 192.168.34.1
74500	3122.685317	TP-Link_3a:39:54	HonHaiPr_84:81:01	ARP	60	who has 192.168.34.9? Tell 192.168.34.1
74501	3122.691282	TP-Link_3a:39:54	HonHaiPr_84:81:01	ARP	60	who has 192.168.34.9? Tell 192.168.34.1
74502	3122.741776	TP-Link_3a:39:54	HonHaiPr_84:7f:f1	ARP	60	who has 192.168.34.26? Tell 192.168.34.1
74503	3122.756966	TP-Link_3a:39:54	HonHaiPr_84:7f:f1	ARP	60	who has 192.168.34.26? Tell 192.168.34.1
74504	3122.760416	TP-Link_3a:39:54	HonHaiPr_84:80:97	ARP	60	who has 192.168.34.52? Tell 192.168.34.1
74505	3122.851308	TP-Link_3a:39:54	HonHaiPr_84:80:97	ARP	60	who has 192.168.34.52? Tell 192.168.34.1
74506	3122.863334	TP-Link_3a:39:54	HonHaiPr_84:80:34	ARP	60	who has 192.168.34.5? Tell 192.168.34.1
74507	3122.863334	TP-Link_3a:39:54	HonHaiPr_84:80:34	ARP	60	who has 192.168.34.5? Tell 192.168.34.1
74508	3122.882200	TP-Link_3a:39:54	Micro-St_e4:eb:d4	ARP	60	who has 192.168.34.27? Tell 192.168.34.1
74509	3122.904611	TP-Link_3a:39:54	Micro-St_e4:eb:d4	ARP	60	who has 192.168.34.27? Tell 192.168.34.1
74510	3122.941767	TP-Link_3a:39:54	HonHaiPr_84:81:26	ARP	60	who has 192.168.34.53? Tell 192.168.34.1
74511	3122.971560	TP-Link_3a:39:54	HonHaiPr_84:81:26	ARP	60	who has 192.168.34.53? Tell 192.168.34.1
74512	3122.980182	TP-Link_3a:39:54	HonHaiPr_84:7f:cc	ARP	60	who has 192.168.34.60? Tell 192.168.34.1
74513	3122.997714	TP-Link_3a:39:54	HonHaiPr_84:7f:cc	ARP	60	who has 192.168.34.60? Tell 192.168.34.1
74514	3123.043900	TP-Link_3a:39:54	Micro-St_c2:9d:17	ARP	60	who has 192.168.34.23? Tell 192.168.34.1
74515	3123.043900	TP-Link_3a:39:54	Micro-St_c2:9d:17	ARP	60	who has 192.168.34.23? Tell 192.168.34.1
74516	3123.062649	TP-Link_3a:39:54	De1l_7e:64:cc	ARP	60	who has 192.168.34.7? Tell 192.168.34.1
74517	3123.081288	TP-Link_3a:39:54	De1l_7e:64:cc	ARP	60	who has 192.168.34.7? Tell 192.168.34.1

Frame 16698: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface \Device\NPF\_{31CF4196-1C8B-4FCE-AF28-A58D593764E9}, id 0  
Ethernet II, Src: TP-Link\_3a:39:54 (b4:b0:24:3a:39:54), Dst: HonHaiPr\_84:80:8c (a4:ae:12:84:80:8c)  
Address Resolution Protocol (request)  
Hardware type: Ethernet (1)  
Protocol type: IPv4 (0x0800)  
Hardware size: 6  
Protocol size: 4  
Opcode: request (1)  
Sender MAC address: TP-Link\_3a:39:54 (b4:b0:24:3a:39:54)  
Sender IP address: 192.168.34.1  
Target MAC address: 00:00:00:00:00:00 (00:00:00:00:00:00)  
Target IP address: 192.168.34.6

0000 a4 ae 12 84 80 8c b4 b0 24 3a 39 54 00 06 00 01 ..... \$:9T....  
0010 00 00 06 04 00 01 b4 b0 24 3a 39 54 c0 a8 22 01 ..... \$:9T..."  
0020 00 00 00 00 00 c0 a8 22 3b 00 00 00 00 00 00 ..... "b.....  
0030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ..... .....

Address Resolution Protocol: Protocol | Packets: 74517 - Displayed: 24498 (32.9%) | Profile: Default

### DHCP:-



The image shows a Wireshark capture of DHCP traffic. The top pane displays a list of 20 DHCP messages. The bottom pane shows the details of the selected packet (No. 19833), which is a DHCP request from 0.0.0.0 to 255.255.255.255. The packet structure is shown as a hex dump and a protocol tree.

No.	Time	Source	Destination	Protocol	Length	Info
493	-3208.881610	0.0.0.0	255.255.255.255	DHCP	346	DHCP Request - Transaction ID 0xb565d38
1020	-3164.207522	0.0.0.0	255.255.255.255	DHCP	346	DHCP Discover - Transaction ID 0x9c90d4db
1021	-3164.205729	192.168.34.1	255.255.255.255	DHCP	342	DHCP Offer - Transaction ID 0x9c90d4db
1022	-3164.205699	0.0.0.0	255.255.255.255	DHCP	374	DHCP Request - Transaction ID 0x9c90d4db
1023	-3164.204476	192.168.34.1	255.255.255.255	DHCP	360	DHCP ACK - Transaction ID 0x9c90d4db
1231	-3154.672028	0.0.0.0	255.255.255.255	DHCP	345	DHCP Discover - Transaction ID 0x4e40db4
1232	-3154.670508	0.0.0.0	255.255.255.255	DHCP	372	DHCP Request - Transaction ID 0x4e40db4
2011	-3080.747209	0.0.0.0	255.255.255.255	DHCP	342	DHCP Inform - Transaction ID 0xd56f5f0
2059	-3070.119364	0.0.0.0	255.255.255.255	DHCP	342	DHCP Inform - Transaction ID 0xd56f5f0
2173	-3069.852830	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xebefddae
2174	-3069.838937	0.0.0.0	255.255.255.255	DHCP	370	DHCP Request - Transaction ID 0xebefddae
9371	-2865.790757	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xfef60307
9372	-2865.789374	0.0.0.0	255.255.255.255	DHCP	370	DHCP Request - Transaction ID 0xfef60307
16688	-2658.643803	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x1dfelc6c
16692	-2658.142935	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x1dfelc6c
16694	-2657.992953	0.0.0.0	255.255.255.255	DHCP	354	DHCP Request - Transaction ID 0x1dfelc6c
18138	-2503.515652	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0x5457322a
18139	-2503.512449	0.0.0.0	255.255.255.255	DHCP	370	DHCP Request - Transaction ID 0x5457322a
18241	-2495.243955	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xfcf009cdc
18245	-2495.241368	0.0.0.0	255.255.255.255	DHCP	370	DHCP Request - Transaction ID 0xfcf009cdc
19833	-2335.771572	0.0.0.0	255.255.255.255	DHCP	340	DHCP Request - Transaction ID 0xdf57f484

Frame 19833: 340 bytes on wire (2720 bits), 340 bytes captured (2720 bits) on interface \Device\NPF\_{31CF4196-1C8B-4FCE-AF28-A58D593764E9}, id 0  
Ethernet II, Src: HonHaiPr\_84:80:d2 (a4:ae:12:84:80:d2), Dst: Broadcast (ff:ff:ff:ff:ff:ff)  
Internet Protocol Version 4, Src: 0.0.0.0, Dst: 255.255.255.255  
User Datagram Protocol, Src Port: 68, Dst Port: 67  
Dynamic Host Configuration Protocol (Request)  
Message type: Boot Request (1)  
Hardware type: Ethernet (0x01)  
Hardware address length: 6  
Hops: 0  
Transaction ID: 0xdf57f484  
Seconds elapsed: 1  
Bootp flags: 0x0000 (Unicast)  
Client IP address: 0.0.0.0  
Your (client) IP address: 0.0.0.0  
Next server IP address: 0.0.0.0

0000 ff ff ff ff ff ff a4 ae 12 84 80 d2 00 00 45 c0 .....E:  
0010 01 46 00 00 40 00 11 38 e8 00 00 00 00 ff ff ...F...@...8.....  
0020 ff ff 00 44 00 43 01 32 87 b7 01 01 06 00 df 57 ...D.C.2.....W  
0030 f4 04 00 01 00 00 00 00 00 00 00 00 00 00 00 .....  
0040 00 00 00 00 00 a4 ae 12 84 80 d2 00 00 00 00 ..... .....

Dynamic Host Configuration Protocol: Protocol | Packets: 75770 - Displayed: 51 (0.1%) | Profile: Default

## DNS:-

Ethernet

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dns

No.	Time	Source	Destination	Protocol	Length	Info
19365	872.788621	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x679d No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19448	877.819393	192.168.34.39	203.212.24.46	DNS	76	Standard query 0x9209 A pool.minexmr.com
19449	877.820844	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x9209 No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19452	882.850782	192.168.34.39	203.212.24.46	DNS	76	Standard query 0xc91a A pool.minexmr.com
19453	882.853512	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0xc91a No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19494	887.890987	192.168.34.39	203.212.24.46	DNS	76	Standard query 0x3508 A pool.minexmr.com
19495	887.894693	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x3508 No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19509	892.929318	192.168.34.39	203.212.24.46	DNS	76	Standard query 0x9d86 A pool.minexmr.com
19510	892.934002	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x9d86 No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19608	897.953977	192.168.34.39	203.212.24.46	DNS	76	Standard query 0x1ffd A pool.minexmr.com
19609	897.956164	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x1ffd No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19674	903.005093	192.168.34.39	203.212.24.46	DNS	76	Standard query 0xe6b0 A pool.minexmr.com
19675	903.009762	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0xe6b0 No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19710	908.029108	192.168.34.39	203.212.24.46	DNS	76	Standard query 0x8912 A pool.minexmr.com
19711	908.032553	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x8912 No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19749	913.079043	192.168.34.39	203.212.24.46	DNS	76	Standard query 0x696f A pool.minexmr.com
19750	913.081136	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x696f No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19768	918.114431	192.168.34.39	203.212.24.46	DNS	76	Standard query 0xed69 A pool.minexmr.com
19769	918.116525	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0xed69 No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
19817	923.153614	192.168.34.39	203.212.24.46	DNS	76	Standard query 0x9dee A pool.minexmr.com
19818	923.155879	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x9dee No such name A pool.minexmr.com SOA frank.ns.cloudflare.com

> Frame 19818: 136 bytes on wire (1088 bits), 136 bytes captured (1088 bits) on interface \Device\NPF\_{31CF4196-1C8B-4FCE-AF28-A58D593764E9}, id 0

> Ethernet II, Src: TP-Link\_3a:39:54 (b4:b0:24:3a:39:54), Dst: Micro-St\_e4:eb:6a (d8:bb:c1:e4:eb:6a)

> Internet Protocol Version 4, Src: 203.212.24.46, Dst: 192.168.34.39

> User Datagram Protocol, Src Port: 53, Dst Port: 64996

> Domain Name System (response)

Transaction ID: 0x9dee

> Flags: 0x0183 Standard query response, No such name

Questions: 1

Answer RRs: 0

Authority RRs: 1

Additional RRs: 0

> Queries

> Authoritative nameservers

[Request In: 19817]

[Time: 0.002265000 seconds]

0000 d8 bb c1 e4 eb 6a b4 b0 24 3a 39 54 08 00 45 00 .....j...\$!9T...E

0010 00 7a b0 1a 00 00 3d 11 06 87 cb d4 18 2e c0 a8 .....Z.....

0020 22 27 00 35 fd e4 00 66 b4 3d 9d ee e1 83 00 01 ..\*5...f.....

0030 00 00 00 01 00 00 04 70 6f 6f 6c 07 6d 69 6e 65 .....pool-mine

0040 78 6d 72 03 63 6f 6d 00 00 01 01 c0 11 00 06 .....xmr.com.....

Domain Name System: Protocol

Packets: 75911 · Displayed: 1457 (1.9%)

Profile: Default

ENG US 11:43 04-10-2022

## HTTP:-

Ethernet

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http

No.	Time	Source	Destination	Protocol	Length	Info
22218	1148.304832	fe80::b999:d594:c1b...	fe80::1c97:2d89:385...	HTTP/X...	807	POST /2dcccfa2-cef5-4d9b-a128-d25c31780566/ HTTP/1.1
22220	1148.305840	fe80::1c97:2d89:385...	fe80::b999:d594:c1b...	HTTP/X...	2425	HTTP/1.1 200
23986	1253.442583	192.168.34.39	111.119.15.128	HTTP	369	GET /filestreamingservice/files/1ee8f2d3-cfbe-4514-a83a-5aaadb44df5e/pieceshash HTTP/1.1
24002	1253.486704	111.119.15.128	192.168.34.39	HTTP	926	HTTP/1.1 200 OK
24005	1253.487283	192.168.34.39	111.119.15.128	HTTP	369	GET /filestreamingservice/files/cadae296-3389-40c2-b927-605f7b399b78/pieceshash HTTP/1.1
24007	1253.491706	111.119.15.128	192.168.34.39	HTTP	1339	HTTP/1.1 200 OK
24015	1253.501410	192.168.34.39	111.119.15.128	HTTP	369	GET /filestreamingservice/files/de44abf4-d2ba-4197-a139-85c485d58e0b/pieceshash HTTP/1.1
24017	1253.504119	111.119.15.128	192.168.34.39	HTTP	1336	HTTP/1.1 200 OK
24042	1253.616864	192.168.34.39	13.107.4.50	HTTP	497	GET /filestreamingservice/files/cadae296-3389-40c2-b927-605f7b399b78?P1=1664778394&P2=404&P3=2&P4=5br63Rr5cOKIDrc2%2bZ5em...
24045	1253.616908	192.168.34.39	13.107.4.50	HTTP	487	GET /filestreamingservice/files/de44abf4-d2ba-4197-a139-85c485d58e0b?P1=1664778458&P2=404&P3=2&P4=UwL1h7EvdBxMpSiaHdupJ11f...
24046	1253.616938	192.168.34.39	13.107.4.50	HTTP	482	GET /filestreamingservice/files/1ee8f2d3-cfbe-4514-a83a-5aaadb44df5e?P1=1664778372&P2=404&P3=2&P4=dnKKK1rEQ0z5F07Zd1wZL...
24050	1253.623017	13.107.4.50	192.168.34.39	HTTP	307	HTTP/1.1 403 Forbidden
24052	1253.623684	13.107.4.50	192.168.34.39	HTTP	307	HTTP/1.1 403 Forbidden
24053	1253.623736	13.107.4.50	192.168.34.39	HTTP	307	HTTP/1.1 403 Forbidden
24179	1254.659778	192.168.34.39	111.119.15.128	HTTP	369	GET /filestreamingservice/files/4a7b7286-8e4b-437b-b2f9-ca58dd1e204e/pieceshash HTTP/1.1
24187	1254.659788	111.119.15.128	192.168.34.39	HTTP	344	HTTP/1.1 200 OK
24201	1254.740579	192.168.34.39	8.241.131.254	HTTP	499	GET /filestreamingservice/files/4a7b7286-8e4b-437b-b2f9-ca58dd1e204e?P1=1664779189&P2=404&P3=2&P4=Ea1kaT8z24aaOqTp1lKNR6...
24210	1254.805629	8.241.131.254	192.168.34.39	HTTP	418	HTTP/1.1 403 Forbidden (text/html)
24524	1260.256465	192.168.34.39	8.241.151.254	HTTP	487	GET /filestreamingservice/files/cadae296-3389-40c2-b927-605f7b399b78?P1=1664862642&P2=404&P3=2&P4=R27xs3wZyfsPRu04Q0D18SRZ...
24528	1260.266578	192.168.34.39	8.241.162.126	HTTP	486	GET /filestreamingservice/files/1ee8f2d3-cfbe-4514-a83a-5aaadb44df5e?P1=1664862581&P2=404&P3=2&P4=Jr9cVwxtfBsiDN6ABp96dU2...
24531	1260.275711	192.168.34.39	8.241.151.254	HTTP	499	GET /filestreamingservice/files/de44abf4-d2ba-4197-a139-85c485d58e0b?P1=1664862696&P2=404&P3=2&P4=IE9HwA2bpfFyF03op0v5FS...

> Frame 22218: 807 bytes on wire (6456 bits), 807 bytes captured (6456 bits) on interface \Device\NPF\_{31CF4196-1C8B-4FCE-AF28-A58D593764E9}, id 0

> Ethernet II, Src: Micro-St\_e4:eb:6d (d8:bb:c1:e4:eb:d4), Dst: Micro-St\_e4:eb:6a (d8:bb:c1:e4:eb:6a)

> Internet Protocol Version 6, Src: fe80::b999:d594:c1b4:f495, Dst: fe80::1c97:2d89:385:32b8

> Transmission Control Protocol, Src Port: 49741, Dst Port: 5357, Seq: 240, Ack: 1, Len: 733

> [2 Reassembled TCP Segments (972 bytes): #22217(239), #22218(733)]

> Hypertext Transfer Protocol

> POST /2dcccfa2-cef5-4d9b-a128-d25c31780566/ HTTP/1.1\r\n

Cache-Control: no-cache\r\n

Connection: Keep-Alive\r\n

Pragma: no-cache\r\n

Content-Type: application/soap+xml\r\n

User-Agent: WSDAPI\r\n

> Content-Length: 733\r\n

Host: [fe80::1c97:2d89:385:32b8]:5357\r\n

\r\n

0030 2d 89 03 85 32 b8 c2 4d 14 ed 66 91 62 91 1e 6e .....M...f-b...n

0040 82 2b 50 18 04 05 ca 7a 00 00 3c 3f 78 6d 6c 20 .....+P.....z...<?xml

0050 76 65 72 73 69 6f 6e 3d 22 31 2e 30 22 20 65 6e .....version="1.0" en

0060 63 6f 64 69 6e 67 3d 22 75 7a 66 2d 38 2d 3f 3e .....coding="utf-8">

Frame (807 bytes) Reassembled TCP (972 bytes)

Destination Port (tcp.dstport), 2 bytes

Packets: 75151 · Displayed: 65 (0.1%)

Profile: Default

ENG US 11:42 04-10-2022

## ICMP:-

Wireshark capture of ICMP traffic. The packet list shows a series of Echo (ping) requests and replies between 192.168.34.39 and 192.168.34.24. The packet details pane shows the structure of an ICMP Echo (ping) request, including the Ethernet II header, Internet Protocol Version 4 header, and Internet Control Message Protocol header. The packet bytes pane shows the raw data in hexadecimal and ASCII.

No.	Time	Source	Destination	Protocol	Length	Info
13413	521.372527	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) request id=0x0001, seq=598/22018, ttl=128 (request in 13412)
13446	522.384921	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) reply id=0x0001, seq=599/22274, ttl=128 (reply in 13447)
13447	522.384999	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) request id=0x0001, seq=599/22274, ttl=128 (request in 13446)
13509	523.405680	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) reply id=0x0001, seq=600/22530, ttl=128 (reply in 13510)
13510	523.405802	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) request id=0x0001, seq=600/22530, ttl=128 (request in 13509)
13522	524.420885	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=601/22786, ttl=128 (reply in 13523)
13523	524.420963	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=601/22786, ttl=128 (request in 13522)
13559	525.437963	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=602/23042, ttl=128 (reply in 13560)
13560	525.438041	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=602/23042, ttl=128 (request in 13559)
13594	526.453972	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=603/23298, ttl=128 (reply in 13595)
13595	526.454073	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=603/23298, ttl=128 (request in 13594)
13632	527.470568	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=604/23554, ttl=128 (reply in 13633)
13633	527.470646	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=604/23554, ttl=128 (request in 13632)
13839	534.438555	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=605/23810, ttl=128 (reply in 13840)
13840	534.438629	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=605/23810, ttl=128 (request in 13839)
13872	535.450712	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=606/24066, ttl=128 (reply in 13873)
13873	535.450799	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=606/24066, ttl=128 (request in 13872)
13877	536.467306	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=607/24322, ttl=128 (reply in 13878)
13878	536.467384	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=607/24322, ttl=128 (request in 13877)
16744	605.000966	192.168.34.1	192.168.34.39	ICMP	173	Destination unreachable (Port unreachable)
73505	3027.205215	192.168.34.1	192.168.34.39	ICMP	173	Destination unreachable (Port unreachable)

Frame 16744: 173 bytes on wire (1384 bits), 173 bytes captured (1384 bits) on interface \Device\NPF\_{31CF4196-1C8B-4FCE-AF28-A58D593764E9}, id 0  
> Ethernet II, Src: TP-Link\_3a:39:54 (b4:b0:24:3a:39:54), Dst: Micro-St\_e4:eb:6a (d8:bb:c1:e4:eb:6a)  
> Internet Protocol Version 4, Src: 192.168.34.1, Dst: 192.168.34.39  
Internet Control Message Protocol  
Type: 3 (Destination unreachable)  
Code: 3 (Port unreachable)  
Checksum: 0xc2f6 [correct]  
[Checksum Status: Good]  
Unused: 00000000  
> Internet Protocol Version 4, Src: 192.168.34.39, Dst: 192.168.34.1  
Hex Dump  
0000 d8 bb c1 e4 eb 6a b4 b0 24 3a 39 54 08 00 45 c0 .....j...\$!T...E  
0010 00 9f d8 e3 00 00 40 01 d6 41 c0 a8 22 01 c0 a8 .....@...A...  
0020 22 27 03 03 c2 f6 00 00 00 45 00 00 83 87 ba .....:E.....  
0030 00 00 80 11 ed 36 c0 a8 22 27 c0 a8 22 01 00 89 .....6.....  
0040 89 c2 00 6f 9c 63 44 f9 84 00 00 00 01 00 00 .....o.cD.....  
0050 00 00 20 43 4b 41 41 41 41 41 41 41 41 41 41 .....AAAAA.....  
0060 41 41 41 41 41 41 41 41 41 41 41 41 41 41 .....AAAAAAAAA  
0070 41 41 41 00 00 21 00 01 00 00 00 00 2f 00 d8 AAA...!.../..  
0080 bb c1 e4 eb 6a 00 00 00 00 00 00 00 00 00 00 .....j.....  
0090 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....  
Internet Control Message Protocol: Protocol  
Packets: 74031 · Displayed: 976 (1.3%)  
Profile: Default

## IGMP:-

Wireshark capture of IGMP traffic. The packet list shows a series of Membership Reports and Leave Groups sent from 192.168.34.39 to 224.0.0.252. The packet details pane shows the structure of an IGMP Membership Report, including the Ethernet II header, Internet Protocol Version 4 header, and Internet Group Management Protocol header. The packet bytes pane shows the raw data in hexadecimal and ASCII.

No.	Time	Source	Destination	Protocol	Length	Info
73513	3024.736554	192.168.34.39	224.0.0.252	IGMPv2	46	Membership Report group 224.0.0.252
73524	3025.208352	192.168.34.39	224.0.0.252	IGMPv2	46	Membership Report group 224.0.0.252
73529	3026.397893	192.168.34.48	224.0.0.22	IGMPv3	60	Membership Report / Join group 224.0.0.251 for any sources
73558	3027.054363	192.168.34.48	224.0.0.22	IGMPv3	60	Membership Report / Join group 224.0.0.251 for any sources
73833	3054.248567	192.168.34.44	224.0.0.22	IGMPv3	60	Membership Report / Leave group 224.0.0.252
73839	3059.922444	192.168.34.24	224.0.0.2	IGMPv2	60	Leave Group 224.0.0.252
73842	3059.922482	192.168.34.24	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
73845	3059.922482	192.168.34.24	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
73850	3060.410356	192.168.34.24	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
73920	3066.945362	192.168.34.4	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
73922	3066.945475	192.168.34.4	224.0.0.2	IGMPv2	60	Leave Group 224.0.0.252
73924	3066.945675	192.168.34.4	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
73933	3067.413779	192.168.34.4	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
73943	3071.695816	192.168.34.48	224.0.0.22	IGMPv3	60	Membership Report / Leave group 224.0.0.251
73948	3072.494681	192.168.34.48	224.0.0.22	IGMPv3	60	Membership Report / Leave group 224.0.0.251
74295	3096.754397	192.168.34.48	224.0.0.22	IGMPv3	60	Membership Report / Join group 224.0.0.251 for any sources
74296	3097.093540	192.168.34.48	224.0.0.22	IGMPv3	60	Membership Report / Join group 224.0.0.251 for any sources
74587	3137.953266	192.168.34.1	224.0.0.1	IGMPv2	60	Membership Query, general
74588	3138.029065	192.168.34.55	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
74596	3138.528820	192.168.34.55	239.255.255.250	IGMPv2	60	Membership Report group 239.255.255.250
74601	3139.202056	192.168.34.20	224.0.0.251	IGMPv2	60	Membership Report group 224.0.0.251

Frame 13187: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface \Device\NPF\_{31CF4196-1C8B-4FCE-AF28-A58D593764E9}, id 0  
> Ethernet II, Src: Dell\_e7:af:c6 (30:d0:42:e7:af:c6), Dst: IPv4mcast\_fc (01:00:5e:00:00:fc)  
> Internet Protocol Version 4, Src: 192.168.34.22, Dst: 224.0.0.252  
Internet Group Management Protocol  
[IGMP Version: 2]  
Type: Membership Report (0x16)  
Max Resp Time: 0.0 sec (0x00)  
Checksum: 0x8903 [correct]  
[Checksum Status: Good]  
Multicast Address: 224.0.0.252  
Hex Dump  
0000 01 00 5e 00 00 fc 30 d0 42 e7 af c6 08 00 46 00 .....@...B...F  
0010 00 20 4c 45 00 00 01 02 14 d8 c0 a8 22 16 e0 00 .....LE.....  
0020 00 fc 94 04 00 00 16 00 09 03 e0 00 00 fc 00 00 .....  
0030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....  
Internet Group Management Protocol: Protocol  
Packets: 74669 · Displayed: 277 (0.4%)  
Profile: Default

## IP:-

The screenshot shows a Wireshark capture of network traffic on the interface \Device\NPF\_{31CF4196-1CBB-4FC2-AF28-A580593764E9}. The filter is set to 'ip.addr == 192.168.34.24'. The packet list shows a series of ICMP Echo (ping) requests and replies between 192.168.34.39 and 192.168.34.24. The packet details pane shows the structure of an ICMP Echo (ping) request, including the Echo (ping) request header and the data field. The packet bytes pane shows the raw data of the packet.

No.	Time	Source	Destination	Protocol	Length	Info
13114	511.237072	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=588/19458, ttl=128 (reply in 13115)
13115	511.237148	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=588/19458, ttl=128 (request in 13114)
13116	512.251706	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=589/19714, ttl=128 (reply in 13117)
13117	512.251801	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=589/19714, ttl=128 (request in 13116)
13185	512.894326	192.168.34.24	224.0.0.251	IGMPv2	60	Membership Report group 224.0.0.251
13189	513.269559	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=590/19970, ttl=128 (reply in 13190)
13190	513.269635	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=590/19970, ttl=128 (request in 13189)
13225	514.281569	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=591/20226, ttl=128 (reply in 13226)
13226	514.281650	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=591/20226, ttl=128 (request in 13225)
13264	515.292763	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=592/20482, ttl=128 (reply in 13265)
13265	515.292840	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=592/20482, ttl=128 (request in 13264)
13268	516.301974	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=593/20738, ttl=128 (reply in 13269)
13269	516.302052	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=593/20738, ttl=128 (request in 13268)
13303	517.314075	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=594/20994, ttl=128 (reply in 13304)
13304	517.314157	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=594/20994, ttl=128 (request in 13303)
13339	518.326398	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=595/21250, ttl=128 (reply in 13340)
13340	518.326476	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=595/21250, ttl=128 (request in 13339)
13372	519.341235	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=596/21506, ttl=128 (reply in 13373)
13373	519.341314	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=596/21506, ttl=128 (request in 13372)
13374	520.350246	192.168.34.24	192.168.34.39	ICMP	74	Echo (ping) request id=0x0001, seq=597/21762, ttl=128 (reply in 13375)
13375	520.350343	192.168.34.39	192.168.34.24	ICMP	74	Echo (ping) reply id=0x0001, seq=597/21762, ttl=128 (request in 13374)

> Frame 21825: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface \Device\NPF\_{31CF4196-1CBB-4FC2-AF28-A580593764E9}, id 0  
> Ethernet II, Src: Micro-St\_c2:a0:2e (d8:bb:c1:c2:a0:2e), Dst: IPv4mcast\_fb (01:00:5e:00:00:fb)  
> Internet Protocol Version 4, Src: 192.168.34.24, Dst: 224.0.0.251  
v Internet Group Management Protocol  
[IGMP Version: 2]  
Type: Membership Report (0x16)  
Max Resp Time: 0.0 sec (0x00)  
Checksum: 0x8904 [correct]  
[Checksum Status: Good]  
Multicast Address: 224.0.0.251

0000 01 00 5e 00 00 fb d8 bb c1 c2 a0 2e 08 00 46 00 ..G....B....  
0010 20 1e 47 00 00 16 02 42 c0 a8 22 18 e0 00 .....  
0020 00 fb 94 04 00 00 16 00 09 04 e0 00 00 fb 00 .....  
0030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....

## TCP:-

The screenshot shows a Wireshark capture of network traffic on the interface \Device\NPF\_{31CF4196-1CBB-4FC2-AF28-A580593764E9}. The filter is set to 'tcp'. The packet list shows a series of TCP segments, including a SYN exchange, a GET request, and a 200 OK response. The packet details pane shows the structure of a TCP segment, including the TCP header and the data field. The packet bytes pane shows the raw data of the packet.

No.	Time	Source	Destination	Protocol	Length	Info
74273	3094.126320	120.138.127.23	192.168.34.39	TCP	1494	443 → 61671 [PSH, ACK] Seq=63024 Ack=946 Win=64128 Len=1440 [TCP segment of a reassembled PDU]
74274	3094.126489	120.138.127.23	192.168.34.39	TCP	1494	443 → 61671 [ACK] Seq=64464 Ack=946 Win=64128 Len=1440 [TCP segment of a reassembled PDU]
74275	3094.126495	192.168.34.39	120.138.127.23	TCP	54	61671 → 443 [ACK] Seq=946 Ack=65904 Win=263424 Len=0
74276	3094.126573	120.138.127.23	192.168.34.39	TCP	1494	443 → 61671 [ACK] Seq=65904 Ack=946 Win=64128 Len=1440 [TCP segment of a reassembled PDU]
74277	3094.126730	120.138.127.23	192.168.34.39	TCP	1494	443 → 61671 [ACK] Seq=67344 Ack=946 Win=64128 Len=1440 [TCP segment of a reassembled PDU]
74278	3094.126734	192.168.34.39	120.138.127.23	TCP	54	61671 → 443 [ACK] Seq=946 Ack=68784 Win=263424 Len=0
74279	3094.126814	120.138.127.23	192.168.34.39	TLSv1.2	1494	Application Data [TCP segment of a reassembled PDU]
74280	3094.126897	120.138.127.23	192.168.34.39	TLSv1.2	1438	Application Data
74281	3094.126905	192.168.34.39	120.138.127.23	TCP	54	61671 → 443 [ACK] Seq=946 Ack=71688 Win=263424 Len=0
74282	3094.173405	192.168.34.39	52.231.199.126	TCP	54	61670 → 443 [ACK] Seq=710 Ack=6878 Win=262656 Len=0
74369	3106.817689	192.168.34.39	117.18.232.240	TCP	66	61672 → 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
74370	3106.820869	117.18.232.240	192.168.34.39	TCP	66	80 → 61672 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1440 SACK_PERM=1 WS=512
74371	3106.820920	192.168.34.39	117.18.232.240	TCP	54	61672 → 80 [ACK] Seq=1 Ack=1 Win=263424 Len=0
74372	3106.821088	192.168.34.39	117.18.232.240	HTTP	335	GET /msdownload/update/v3/static/trusted/en/autorootstl.cab?ea74bb35fb819ca HTTP/1.1
74373	3106.823226	117.18.232.240	192.168.34.39	TCP	60	80 → 61672 [ACK] Seq=1 Ack=282 Win=67072 Len=0
74374	3106.824776	117.18.232.240	192.168.34.39	HTTP	344	HTTP/1.1 304 Not Modified
74375	3106.829396	192.168.34.39	117.18.232.240	HTTP	341	GET /msdownload/update/v3/static/trusted/en/disallowedcertstl.cab?91cf753d760d4dea HTTP/1.1
74376	3106.831470	117.18.232.240	192.168.34.39	TCP	60	80 → 61672 [ACK] Seq=291 Ack=569 Win=68096 Len=0
74377	3106.832280	117.18.232.240	192.168.34.39	HTTP	344	HTTP/1.1 304 Not Modified
74383	3106.883792	192.168.34.39	117.18.232.240	TCP	54	61672 → 80 [ACK] Seq=569 Ack=581 Win=262912 Len=0
74431	3111.402871	52.113.194.132	192.168.34.39	TCP	60	443 → 61664 [RST, ACK] Seq=6051 Ack=1019 Win=0 Len=0

> Frame 16699: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface \Device\NPF\_{31CF4196-1CBB-4FC2-AF28-A580593764E9}, id 0  
> Ethernet II, Src: Micro-St\_e4:eb:6a (d8:bb:c1:e4:eb:6a), Dst: Micro-St\_c2:9b:e4 (d8:bb:c1:c2:9b:e4)  
> Internet Protocol Version 6, Src: fe80::1c97:2d89:385:32b8, Dst: fe80::a9ce:af4a:2846:5304  
v Transmission Control Protocol, Src Port: 61590, Dst Port: 445, Seq: 25443, Ack: 1456328, Len: 0  
Source Port: 61590  
Destination Port: 445  
[Stream index: 12]  
[Conversation completeness: Complete, WITH\_DATA (47)]  
[TCP Segment Len: 0]  
Sequence Number: 25443 (relative sequence number)  
Sequence Number (raw): 2789968545  
[Next Sequence Number: 25443 (relative sequence number)]  
Acknowledgment Number: 1456328 (relative ack number)  
Acknowledgment number (raw): 2985725973  
0101 .... = Header Length: 20 bytes (5)

0000 d8 bb c1 c2 9b e4 d8 bb c1 e4 eb 6a b6 dd 60 0b .....  
0010 b4 05 00 14 06 00 fe 80 00 00 00 00 00 1c 97 .....  
0020 2d 89 03 85 32 b6 fe 80 00 00 00 00 00 00 a9 ce .....  
0030 af 4a 28 46 53 04 f0 96 01 bd a6 4b 8a a1 b1 f6 ...J(FS.....K....  
0040 9b 15 50 10 04 03 51 dd 00 00 .....P..Q..

**Ethernet**

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ludp

No.	Time	Source	Destination	Protocol	Length	Info
74807	3154.141260	192.168.34.49	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74808	3154.157646	192.168.34.49	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74809	3154.203049	192.168.34.4	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74810	3154.900360	192.168.34.22	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74815	3155.150320	192.168.34.49	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74823	3155.165878	192.168.34.49	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74824	3155.214201	192.168.34.4	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74842	3155.788735	192.168.34.35	224.0.0.251	MDNS	165	Standard query 0x0000 PTR _ftp._tcp.local, "QM" question PTR _smb._tcp.local, "QM" question PTR _nfs._tcp.local, "QM" que-
74843	3155.799078	192.168.34.39	203.212.24.46	DNS	76	Standard query 0x3169 A pool.minexmr.com
74844	3155.800171	203.212.24.46	192.168.34.39	DNS	136	Standard query response 0x3169 No such name A pool.minexmr.com SOA frank.ns.cloudflare.com
74845	3155.911583	192.168.34.22	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74846	3156.167115	192.168.34.49	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74847	3156.178591	192.168.34.49	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74848	3156.221139	192.168.34.4	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74849	3156.437589	192.168.34.35	255.255.255.255	NBNS	92	Name query NB *<00:<00:<00:<00:<00:<00:<00:<00:<00:<00:<00:<00>
74850	3156.437661	192.168.34.39	192.168.34.35	NBNS	104	Name query response, Requested name does not exist NB 0.0.0.0
74851	3156.440559	192.168.34.35	192.168.34.39	NBNS	92	Name query NSTAT *<00:<00:<00:<00:<00:<00:<00:<00:<00:<00:<00:<00>
74852	3156.440594	192.168.34.39	192.168.34.35	NBNS	145	Name query response NSTAT
74854	3156.927220	192.168.34.22	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74857	3157.163214	192.168.34.49	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
74858	3157.178637	192.168.34.49	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1

> Frame 13149: 70 bytes on wire (560 bits), 70 bytes captured (560 bits) on interface \Device\NPF\_{31CF4196-1CBB-4FCE-AF28-A5D859376AE9}, id 0

> Ethernet II, Src: Dell\_e7:ad:fc (3c:d0:42:e7:ad:fc), Dst: Micro-St\_e4:eb:6a (d8:bb:c1:e4:eb:6a)

> Internet Protocol Version 4, Src: 192.168.34.3, Dst: 192.168.34.39

> User Datagram Protocol, Src Port: 52972, Dst Port: 2054

- Source Port: 52972
- Destination Port: 2054
- Length: 36
- Checksum: 0xe02 [unverified]
- [checksum status: Unverified]
- [Stream Index: 395]
- > [Timestamps]
- UDP payload (28 bytes)

> Data (28 bytes)

```

0000 d8 bb c1 e4 eb 6a 30 d0 42 e7 ad fc 00 00 45 00 .....j0..B....E...
0010 00 38 b7 f5 00 00 00 11 bd 44 c0 a8 22 03 c0 a8 ..8.....D.....
0020 22 27 ce ec 08 06 00 24 6e 02 00 01 08 00 06 04 .... "$ n.....
0030 00 01 30 d0 42 e7 ad fc c0 a8 22 03 ff ff ff ff ...0.B.....
0040 ff ff c0 a8 22 27 .....*
```

User Datagram Protocol: Protocol | Packets: 74858 · Displayed: 12284 (16.4%) | Profile: Default