

i) Address Resolution Protocol (ARP Announcement):

No.	Time	Source	Destination	Protocol	Length	Info
38	0.306702	d2:62:f5:c3:b2:4b	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.60
76	0.923587	Intel_f1:0d:e7	Broadcast	ARP	60	Who has 172.27.107.208? (ARP Probe)
119	1.534579	72:e1:39:4d:2d:91	Broadcast	ARP	60	ARP Announcement for 172.27.107.192
124	1.840405	72:e1:39:4d:2d:91	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.192
125	1.840644	Intel_f1:0d:e7	Broadcast	ARP	60	ARP Announcement for 172.27.107.208
518	3.991744	Intel_f1:0d:e7	Broadcast	ARP	60	ARP Announcement for 172.27.107.208
782	8.603608	72:e1:39:4d:2d:91	Broadcast	ARP	60	ARP Announcement for 172.27.107.192
804	8.908716	72:e1:39:4d:2d:91	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.192
822	9.831400	72:e1:39:4d:2d:91	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.192
828	10.140431	72:e1:39:4d:2d:91	Broadcast	ARP	60	ARP Announcement for 172.27.107.192
1388	19.668291	Cisco_5b:96:5d	Broadcast	ARP	60	Who has 172.27.107.239? Tell 172.27.96.1
1491	22.730724	b6:7b:c4:ea:b9:63	Broadcast	ARP	60	Who has 172.27.107.239? (ARP Probe)
1493	23.038390	b6:7b:c4:ea:b9:63	Broadcast	ARP	60	Who has 172.27.107.239? (ARP Probe)
1498	23.654848	b6:7b:c4:ea:b9:63	Broadcast	ARP	60	ARP Announcement for 172.27.107.239
1502	23.964903	b6:7b:c4:ea:b9:63	Broadcast	ARP	60	ARP Announcement for 172.27.107.239
1531	24.270167	b6:7b:c4:ea:b9:63	Broadcast	ARP	60	ARP Announcement for 172.27.107.239
1532	24.270167	b6:7b:c4:ea:b9:63	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.239
1539	24.880874	b6:7b:c4:ea:b9:63	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.239
1580	28.874931	5a:78:82:5a:92:e2	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.106.28
1818	32.256337	Intel_f1:0d:e7	Broadcast	ARP	60	Who has 172.27.107.208? (ARP Probe)
1830	32.869175	Intel_f1:0d:e7	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.208
1851	33.485134	Intel_f1:0d:e7	Broadcast	ARP	60	Who has 172.27.107.208? (ARP Probe)
1867	34.405066	Intel_f1:0d:e7	Broadcast	ARP	60	Who has 172.27.107.208? (ARP Probe)
1918	35.335982	Intel_f1:0d:e7	Broadcast	ARP	60	ARP Announcement for 172.27.107.208
1952	36.557732	d2:62:f5:c3:b2:4b	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.60
2006	37.478583	Intel_f1:0d:e7	Broadcast	ARP	60	ARP Announcement for 172.27.107.208
2007	37.478583	d2:62:f5:c3:b2:4b	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.60
2154	39.636879	32:25:b0:ee:28:cb	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.100.194
2415	46.695529	XiaomiCommun_ac:13...	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.197
2427	47.311054	d6:cb:3d:6c:4c:86	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.105.140
2505	50.995010	Cisco_5b:96:5d	Broadcast	ARP	60	Who has 172.27.107.240? Tell 172.27.96.1
2506	51.304043	Intel_f1:0d:e7	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.208
2507	51.304043	Intel_f1:0d:e7	Broadcast	ARP	60	Who has 172.27.107.208? (ARP Probe)
2524	53.146716	16:aa:a8:78:48:cb	Broadcast	ARP	64	Who has 172.27.96.1? Tell 172.27.107.240
2527	53.452422	Intel_f1:0d:e7	Broadcast	ARP	60	Who has 172.27.107.208? (ARP Probe)
2528	53.452422	16:aa:a8:78:48:cb	Broadcast	ARP	64	Who has 172.27.96.1? Tell 172.27.107.240
2542	54.376474	Intel_f1:0d:e7	Broadcast	ARP	60	ARP Announcement for 172.27.107.208

ii) Domain Name System (response)(DNS):

No.	Time	Source	Destination	Protocol	Length	Info
18	0.108390	172.27.108.74	192.168.1.1	DNS	106	Standard query 0xac1b A edge-consumer-static.azureedge.net
23	0.112718	192.168.1.1	172.27.108.74	DNS	321	Standard query response 0xcd1e HTTPS edge-consumer-static.azureedge.net CNAME edge-consumer-static...
24	0.112718	192.168.1.1	172.27.108.74	DNS	293	Standard query response 0xac1b A edge-consumer-static.azureedge.net CNAME edge-consumer-static.afd...
489	3.745443	172.27.108.74	8.8.8.8	DNS	93	Standard query 0x271a A edgeservices.bing.com
491	3.745567	172.27.108.74	192.168.1.1	DNS	93	Standard query 0xe680 A edgeservices.bing.com
493	3.745825	172.27.108.74	8.8.8.8	DNS	93	Standard query 0x5805 A edgeservices.bing.com
495	3.745940	172.27.108.74	192.168.1.1	DNS	93	Standard query 0x8e91 A edgeservices.bing.com
498	3.749005	8.8.8.8	172.27.108.74	DNS	129	Standard query response 0x271a A edgeservices.bing.com CNAME www.bing.com A 204.79.197.220
506	3.749873	192.168.1.1	172.27.108.74	DNS	129	Standard query response 0xe680 A edgeservices.bing.com CNAME www.bing.com A 204.79.197.220
507	3.749873	192.168.1.1	172.27.108.74	DNS	129	Standard query response 0x8e91 A edgeservices.bing.com CNAME www.bing.com A 204.79.197.220
508	3.749873	8.8.8.8	172.27.108.74	DNS	129	Standard query response 0x5805 A edgeservices.bing.com CNAME www.bing.com A 204.79.197.220
606	5.503632	172.27.108.74	8.8.8.8	DNS	108	Standard query 0x49d0 A proteus-assetstore.azurewebsites.net
692	7.517992	172.27.108.74	8.8.4.4	DNS	108	Standard query 0x3358 HTTPS proteus-assetstore.azurewebsites.net
699	7.533210	172.27.108.74	192.168.1.1	DNS	108	Standard query 0xa183 HTTPS proteus-assetstore.azurewebsites.net
716	7.688153	192.168.1.1	172.27.108.74	DNS	296	Standard query response 0xa183 HTTPS proteus-assetstore.azurewebsites.net CNAME waws-prod-mwh-025...
727	7.734362	8.8.4.4	172.27.108.74	DNS	296	Standard query response 0x3358 HTTPS proteus-assetstore.azurewebsites.net CNAME waws-prod-mwh-025...
733	7.736485	172.27.108.74	8.8.4.4	DNS	108	Standard query 0x4fa4 A proteus-assetstore.azurewebsites.net
736	7.741676	8.8.4.4	172.27.108.74	DNS	242	Standard query response 0x4fa4 A proteus-assetstore.azurewebsites.net CNAME waws-prod-mwh-025.sip...
911	15.620337	172.27.108.74	8.8.8.8	DNS	83	Standard query response 0x3265 A odc.officeapps.live.com
913	15.625718	8.8.8.8	172.27.108.74	DNS	260	Standard query response 0x3265 A odc.officeapps.live.com CNAME prod.odcsm1.live.com.akadns.net CNA...
916	15.642865	172.27.108.74	8.8.8.8	DNS	79	Standard query 0x73a2 A omex.cdn.office.net
923	15.673171	172.27.108.74	8.8.4.4	DNS	79	Standard query 0x73a2 A omex.cdn.office.net
1011	16.076757	172.27.108.74	8.8.8.8	DNS	87	Standard query 0xe786 A roaming.officeapps.live.com
1012	16.080204	8.8.8.8	172.27.108.74	DNS	257	Standard query response 0xe786 A roaming.officeapps.live.com CNAME prod.roaming1.live.com.akadns.n...
1057	16.358436	8.8.8.8	172.27.108.74	DNS	187	Standard query response 0x73a2 A omex.cdn.office.net CNAME omex.cdn.office.net.akamaized.net CNAME...
1058	16.360619	172.27.108.74	8.8.8.8	DNS	84	Standard query 0x0acb A ocws.officeapps.live.com
1060	16.361294	172.27.108.74	8.8.8.8	DNS	85	Standard query 0x66ea A consent.config.office.com
1061	16.364960	8.8.8.8	172.27.108.74	DNS	261	Standard query response 0x0acb A ocws.officeapps.live.com CNAME prod.ocws1.live.com.akadns.net CNA...
1062	16.364960	8.8.8.8	172.27.108.74	DNS	173	Standard query response 0x66ea A consent.config.office.com CNAME geo.consent.config.office.akadns...
1098	16.609275	172.27.108.74	8.8.8.8	DNS	79	Standard query 0xb15d A graph.microsoft.com
1099	16.627250	172.27.108.74	8.8.4.4	DNS	79	Standard query 0xb15d A graph.microsoft.com
1133	16.757172	8.8.8.8	172.27.108.74	DNS	207	Standard query response 0xb15d A graph.microsoft.com CNAME ags.privatelink.msidentity.com CNAME ww...
1168	16.994699	172.27.108.74	8.8.8.8	DNS	83	Standard query 0x8888 A www.msftconnecttest.com
1171	16.999761	8.8.8.8	172.27.108.74	DNS	227	Standard query response 0x8888 A www.msftconnecttest.com CNAME ncsi-geo.trafficmanager.net CNAME w...
1182	17.046979	172.27.108.74	8.8.8.8	DNS	80	Standard query 0x08d4 A substrate.office.com
1183	17.050744	8.8.8.8	172.27.108.74	DNS	254	Standard query response 0x88d4 A substrate.office.com CNAME outlook.office365.com CNAME ooc-g2.tm...
1251	17.481575	172.27.108.74	8.8.8.8	DNS	77	Standard query 0x2695 A ocsip.digicert.com

iii) Internet Control Message Protocol v6 (ICMPv6):

No.	Time	Source	Destination	Protocol	Length	Info
117	1.227985	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
118	1.534579	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
132	2.157850	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac
141	2.763843	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
466	3.070955	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
519	3.991744	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
645	6.141808	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
672	6.757657	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac
685	7.375481	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
783	8.603608	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
831	10.140431	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
836	10.442597	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
837	10.442597	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
847	11.058557	fe80::62e3:27ff:fe...	ff02::1	ICMPv6	78	Router Advertisement from 60:e3:27:9d:ef:80
853	11.979938	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
861	13.514230	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac
862	13.824029	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
917	15.668618	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
918	15.668618	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
1366	18.737792	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
1389	19.668291	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
1390	19.668291	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
1420	20.589937	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
1492	22.730724	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac
1504	23.964903	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
1542	25.496713	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
1555	27.342630	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
1573	28.261684	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac
1574	28.570166	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
1575	28.570166	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
1582	29.182348	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
1589	29.806222	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
1819	32.256337	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
1820	32.256337	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
1827	32.561400	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
1852	33.485134	fe80::b15c:68f3:fd...	ff02::1	ICMPv6	86	Neighbor Advertisement fe80::b15c:68f3:fd74:9197 (ovr) is at a0:29:42:f1:0d:e7
1853	33.485134	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac

Wi-Fi: <live capture in progress> Packets: 5670 · Displayed: 5670 (100.0%) Profile: Default

iv) Internet Group Management Protocol:

No.	Time	Source	Destination	Protocol	Length	Info
2552	55.911388	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
2553	55.911388	fe80::62e3:27ff:fe...	ff02::1	ICMPv6	78	Router Advertisement from 60:e3:27:9d:ef:80
2556	56.217592	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
2562	56.833850	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
2567	57.138645	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
864	14.438983	172.27.96.1	224.0.0.1	IGMPv2	60	Membership Query, general
1442	20.960407	172.27.108.74	224.0.0.252	IGMPv2	46	Membership Report group 224.0.0.252
1462	21.960738	172.27.108.74	224.0.0.251	IGMPv2	46	Membership Report group 224.0.0.251
1463	21.960860	172.27.108.74	239.255.255.250	IGMPv2	46	Membership Report group 239.255.255.250
1536	24.576737	172.27.99.218	224.0.0.1	IGMPv2	64	Membership Query, general
1553	26.965964	172.27.108.74	224.0.0.252	IGMPv2	46	Membership Report group 224.0.0.252
1850	33.459221	172.27.108.74	224.0.0.251	IGMPv2	46	Membership Report group 224.0.0.251
1863	33.961469	172.27.108.74	239.255.255.250	IGMPv2	46	Membership Report group 239.255.255.250
1864	33.961566	172.27.108.74	224.0.0.252	IGMPv2	46	Membership Report group 224.0.0.252
1741	31.027153	192.168.1.1	224.0.0.1	IGMPv3	64	Membership Query, general
919	15.668618	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0x0cf0 ANY 128-PC
920	15.668618	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0x6f94 ANY Ehsan-PC
921	15.668618	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0x0cf0 ANY 128-PC
922	15.668618	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0x6f94 ANY Ehsan-PC
1423	20.589937	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0xd5e5 ANY Ehsan-PC
1424	20.589937	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0x7cd3 ANY 128-PC
1434	20.891835	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0x7cd3 ANY 128-PC
1435	20.891835	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0xd5e5 ANY Ehsan-PC
1441	20.891835	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0xaad9 ANY 128-PC
1445	21.199660	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0xaad9 ANY 128-PC
1874	34.714620	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0xbe60 ANY 128-PC
1875	34.714620	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0xca3 ANY Ehsan-PC
1876	34.714620	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0xbe60 ANY 128-PC
1877	34.714620	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0xca3 ANY Ehsan-PC
1	0.000000	172.27.107.208	224.0.0.251	MDNS	82	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
2	0.000000	fe80::b15c:68f3:fd...	ff02::fb	MDNS	102	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
3	0.000000	172.27.107.208	224.0.0.251	MDNS	82	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
4	0.000000	fe80::b15c:68f3:fd...	ff02::fb	MDNS	102	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
5	0.000000	172.27.107.208	224.0.0.251	MDNS	82	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
6	0.000000	fe80::b15c:68f3:fd...	ff02::fb	MDNS	102	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
7	0.000000	172.27.107.208	224.0.0.251	MDNS	82	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
8	0.000000	fe80::b15c:68f3:fd...	ff02::fb	MDNS	102	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question

Internet Group Management Protocol (igmp), 8 bytes Packets: 8215 · Displayed: 8215 (100.0%) Profile: Default

v) Link-local Multicast Name Resolution:

The screenshot shows a Wireshark packet capture of LLMNR traffic. The packet list table is as follows:

No.	Time	Source	Destination	Protocol	Length	Info
1536	24.576737	172.27.99.218	224.0.0.1	IGMPv2	64	Membership Query, general
1553	26.965964	172.27.108.74	224.0.0.252	IGMPv2	46	Membership Report group 224.0.0.252
1850	33.459221	172.27.108.74	224.0.0.251	IGMPv2	46	Membership Report group 224.0.0.251
1863	33.961469	172.27.108.74	239.255.255.250	IGMPv2	46	Membership Report group 239.255.255.250
1864	33.961566	172.27.108.74	224.0.0.252	IGMPv2	46	Membership Report group 224.0.0.252
1741	31.027153	192.168.1.1	224.0.0.1	IGMPv3	64	Membership Query, general
919	15.668618	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0x0cf0 ANY 128-PC
920	15.668618	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0x6f94 ANY Ehsan-PC
921	15.668618	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0x0cf0 ANY 128-PC
922	15.668618	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0x6f94 ANY Ehsan-PC
1423	20.589937	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0xd5e5 ANY Ehsan-PC
1424	20.589937	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0x7cd3 ANY 128-PC
1434	20.891835	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0x7cd3 ANY 128-PC
1435	20.891835	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0xd5e5 ANY Ehsan-PC
1441	20.891835	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0xaad9 ANY 128-PC
1445	21.199660	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0xaad9 ANY 128-PC
1874	34.714620	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0xbe60 ANY 128-PC
1875	34.714620	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0xca3 ANY Ehsan-PC
1876	34.714620	fe80::7dc5:ec23:d5...	ff02::1:3	LLMNR	86	Standard query 0xbe60 ANY 128-PC
1877	34.714620	fe80::4cda:d47:e7e...	ff02::1:3	LLMNR	88	Standard query 0xca3 ANY Ehsan-PC
1	0.000000	172.27.107.208	224.0.0.251	MDNS	82	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
2	0.000000	fe80::b15c:68f3:fd...	ff02::fb	MDNS	102	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
3	0.000000	172.27.107.208	224.0.0.251	MDNS	82	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
4	0.000000	fe80::b15c:68f3:fd...	ff02::fb	MDNS	102	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
5	0.000000	172.27.107.208	224.0.0.251	MDNS	82	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
6	0.000000	fe80::b15c:68f3:fd...	ff02::fb	MDNS	102	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
7	0.000000	172.27.107.208	224.0.0.251	MDNS	82	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
8	0.000000	fe80::b15c:68f3:fd...	ff02::fb	MDNS	102	Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question
74	0.923587	172.27.105.79	224.0.0.251	MDNS	96	Standard query 0x001c PTR _spotify-social-listening._tcp.local, "QM" question

Packet details for frame 1435:

- Frame 1435: 88 bytes on wire (704 bits), 88 bytes captured (704 bits) on interface \Device\NPF_{4482D71F-1CD3-45AF-962F-7A37867B5342}, id 0
- Ethernet II, Src: Dell_eb:55:13 (00:24:e8:eb:55:13), Dst: IPv6mcast_01:00:03 (33:33:00:01:00:03)
- Internet Protocol Version 6, Src: fe80::4cda:d47:e7e7:c460, Dst: ff02::1:3
- User Datagram Protocol, Src Port: 63014, Dst Port: 5355
- Link-local Multicast Name Resolution (query)

Wi-Fi: <live capture in progress> Packets: 8818 · Displayed: 8818 (100.0%) Profile: Default

vi) Simple Service Discovery Protocol:

The screenshot shows a Wireshark packet capture of SSDP traffic. The packet list table is as follows:

No.	Time	Source	Destination	Protocol	Length	Info
1556	27.342630	DLinkInterna_ec:d8...	Broadcast	PPPoED	64	Active Discovery Initiation (PADI)
2125	39.321294	DLinkInterna_ec:d8...	Broadcast	PPPoED	64	Active Discovery Initiation (PADI)
2508	51.304043	DLinkInterna_ec:d8...	Broadcast	PPPoED	64	Active Discovery Initiation (PADI)
467	3.379525	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
468	3.379525	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
524	4.300595	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
525	4.300595	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
563	5.222818	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
610	5.528258	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
660	6.455989	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
665	6.455989	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
1953	36.557732	172.27.105.79	239.255.255.250	SSDP	167	M-SEARCH * HTTP/1.1
1959	36.864920	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
1960	36.864920	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
2034	37.787869	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
2035	37.787869	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
2104	39.014736	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
2105	39.014736	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
2176	39.939217	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
2181	39.939217	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
2550	55.911388	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
2551	55.911388	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
2563	56.833850	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
2564	56.833850	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
2572	57.753536	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
2583	58.367316	172.27.107.208	239.255.255.250	SSDP	179	M-SEARCH * HTTP/1.1
2594	58.984297	172.27.107.208	239.255.255.250	SSDP	218	M-SEARCH * HTTP/1.1
2595	58.984297	172.27.107.208	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
9	0.101159	172.27.108.74	192.168.1.1	TCP	66	7708 → 53 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM

Packet details for frame 2105:

- Frame 2105: 218 bytes on wire (1744 bits), 218 bytes captured (1744 bits) on interface \Device\NPF_{4482D71F-1CD3-45AF-962F-7A37867B5342}, id 0
- Ethernet II, Src: Intel_f1:0d:e7 (a0:29:42:f1:0d:e7), Dst: IPv4mcast_7f:ff:fa (01:00:5e:7f:ff:fa)
- Internet Protocol Version 4, Src: 172.27.107.208, Dst: 239.255.255.250
- User Datagram Protocol, Src Port: 58635, Dst Port: 1900
- Simple Service Discovery Protocol

Wi-Fi: <live capture in progress> Packets: 10237 · Displayed: 10237 (100.0%) Profile: Default

vii) Transmission Control Protocol (TCP):

No.	Time	Source	Destination	Protocol	Length	Info
11	0.107716	192.168.1.1	172.27.108.74	TCP	66	53 → 7708 [SYN, ACK] Seq=0 Ack=1 Win=64240 Len=0 MSS=1380 SACK_PERM WS=128
12	0.107716	192.168.1.1	172.27.108.74	TCP	66	53 → 7709 [SYN, ACK] Seq=0 Ack=1 Win=64240 Len=0 MSS=1380 SACK_PERM WS=128
13	0.107906	172.27.108.74	192.168.1.1	TCP	54	7708 → 53 [ACK] Seq=1 Ack=1 Win=131072 Len=0
14	0.107968	172.27.108.74	192.168.1.1	TCP	54	7709 → 53 [ACK] Seq=1 Ack=1 Win=131072 Len=0
15	0.108191	172.27.108.74	192.168.1.1	TCP	56	7709 → 53 [PSH, ACK] Seq=1 Ack=1 Win=131072 Len=2 [TCP segment of a reassembled PDU]
17	0.108355	172.27.108.74	192.168.1.1	TCP	56	7708 → 53 [PSH, ACK] Seq=1 Ack=1 Win=131072 Len=2 [TCP segment of a reassembled PDU]
19	0.112718	192.168.1.1	172.27.108.74	TCP	60	53 → 7709 [ACK] Seq=1 Ack=3 Win=64256 Len=0
20	0.112718	192.168.1.1	172.27.108.74	TCP	60	53 → 7709 [ACK] Seq=1 Ack=55 Win=64256 Len=0
21	0.112718	192.168.1.1	172.27.108.74	TCP	60	53 → 7708 [ACK] Seq=1 Ack=3 Win=64256 Len=0
22	0.112718	192.168.1.1	172.27.108.74	TCP	60	53 → 7708 [ACK] Seq=1 Ack=55 Win=64256 Len=0
25	0.113135	172.27.108.74	192.168.1.1	TCP	54	7708 → 53 [FIN, ACK] Seq=55 Ack=240 Win=130816 Len=0
26	0.113546	172.27.108.74	192.168.1.1	TCP	54	7709 → 53 [FIN, ACK] Seq=55 Ack=268 Win=130816 Len=0
27	0.114216	172.27.108.74	13.107.246.63	TCP	66	7710 → 443 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM
28	0.116879	192.168.1.1	172.27.108.74	TCP	60	53 → 7708 [FIN, ACK] Seq=240 Ack=56 Win=64256 Len=0
29	0.116879	192.168.1.1	172.27.108.74	TCP	60	53 → 7709 [FIN, ACK] Seq=268 Ack=56 Win=64256 Len=0
30	0.116966	172.27.108.74	192.168.1.1	TCP	54	7708 → 53 [ACK] Seq=56 Ack=241 Win=130816 Len=0
31	0.117069	172.27.108.74	192.168.1.1	TCP	54	7709 → 53 [ACK] Seq=56 Ack=269 Win=130816 Len=0
32	0.176653	13.107.246.63	172.27.108.74	TCP	66	443 → 7710 [SYN, ACK] Seq=0 Ack=1 Win=64860 Len=0 MSS=1380 SACK_PERM WS=128
33	0.176760	172.27.108.74	13.107.246.63	TCP	54	7710 → 443 [ACK] Seq=1 Ack=1 Win=131072 Len=0
35	0.239219	13.107.246.63	172.27.108.74	TCP	60	443 → 7710 [ACK] Seq=1 Ack=619 Win=64256 Len=0
40	0.306702	13.107.246.63	172.27.108.74	TCP	1434	443 → 7710 [PSH, ACK] Seq=1480 Ack=1271 Win=64128 Len=1380 [TCP segment of a reassembled PDU]
41	0.306702	13.107.246.63	172.27.108.74	TCP	1390	443 → 7710 [PSH, ACK] Seq=2860 Ack=1271 Win=64128 Len=1336 [TCP segment of a reassembled PDU]
42	0.306702	13.107.246.63	172.27.108.74	TCP	1434	443 → 7710 [ACK] Seq=4196 Ack=1271 Win=64128 Len=1380 [TCP segment of a reassembled PDU]
45	0.306977	172.27.108.74	13.107.246.63	TCP	54	7710 → 443 [ACK] Seq=1271 Ack=7119 Win=131072 Len=0
51	0.373796	172.27.108.74	13.107.246.63	TCP	54	7710 → 443 [ACK] Seq=1690 Ack=7348 Win=130816 Len=0
54	0.428985	172.27.108.74	13.107.246.63	TCP	54	7710 → 443 [ACK] Seq=1721 Ack=7827 Win=130304 Len=0
55	0.475553	13.107.246.63	172.27.108.74	TCP	60	443 → 7710 [ACK] Seq=7827 Ack=1721 Win=64128 Len=0
56	0.532655	172.27.108.74	204.79.197.220	TCP	66	7711 → 443 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM
57	0.577650	204.79.197.220	172.27.108.74	TCP	66	443 → 7711 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1380 WS=256 SACK_PERM

▶ Frame 41: 1390 bytes on wire (11120 bits), 1390 bytes captured (11120 bits) on interface \Device\NPF_{4482D71F-1CD3-45AF-962F-7A37867B5342}, id 0

▶ Ethernet II, Src: Cisco_5b:96:5d (00:26:99:5b:96:5d), Dst: Intel_35:f4:58 (f4:26:79:35:f4:58)

▶ Internet Protocol Version 4, Src: 13.107.246.63, Dst: 172.27.108.74

▶ Transmission Control Protocol, Src Port: 443, Dst Port: 7710, Seq: 2860, Ack: 1271, Len: 1336

Wi-Fi: live capture in progress

Packets: 10724 · Displayed: 10724 (100.0%)

Profile: Default

viii) User Datagram Protocol (UDP):

No.	Time	Source	Destination	Protocol	Length	Info
2190	10.910779	18.172.112.99	172.27.108.74	TLSv1...	95	Application Data
2191	10.910779	18.172.112.99	172.27.108.74	TLSv1...	85	Application Data
2198	11.011776	172.27.108.74	18.172.112.99	TLSv1...	216	Application Data
2218	11.103903	18.172.112.99	172.27.108.74	TLSv1...	2814	Continuation Data
2222	11.106537	18.172.112.99	172.27.108.74	TLSv1...	2814	Continuation Data
2309	11.614914	176.101.51.114	172.27.108.74	TLSv1...	100	Application Data
2310	11.614914	176.101.51.114	172.27.108.74	TLSv1...	78	Application Data
2373	11.666659	176.101.52.148	172.27.108.74	TLSv1...	78	Application Data
2537	11.951239	176.101.51.114	172.27.108.74	TLSv1...	100	Application Data
2538	11.951239	176.101.51.114	172.27.108.74	TLSv1...	78	Application Data
3510	24.510375	172.27.108.74	23.210.45.116	TLSv1...	311	Client Hello (SNI=aka.ms)
3515	24.673443	23.210.45.116	172.27.108.74	TLSv1...	2814	Server Hello, Change Cipher Spec, Application Data
3516	24.673443	23.210.45.116	172.27.108.74	TLSv1...	1390	Continuation Data
3517	24.673443	23.210.45.116	172.27.108.74	TLSv1...	206	Continuation Data
3519	24.680626	172.27.108.74	23.210.45.116	TLSv1...	134	Change Cipher Spec, Application Data
3520	24.732989	172.27.108.74	23.210.45.116	TLSv1...	185	Application Data
3521	24.803933	23.210.45.116	172.27.108.74	TLSv1...	596	Application Data, Application Data
3523	24.856443	23.210.45.116	172.27.108.74	TLSv1...	553	Application Data
3539	25.600174	172.27.108.74	52.239.160.36	TLSv1...	341	Client Hello (SNI=pscoretestdata.blob.core.windows.net)
3540	25.901885	52.239.160.36	172.27.108.74	TLSv1...	153	Hello Retry Request, Change Cipher Spec
3541	25.906268	172.27.108.74	52.239.160.36	TLSv1...	412	Change Cipher Spec, Client Hello (SNI=pscoretestdata.blob.core.windows.net)
3547	26.209389	52.239.160.36	172.27.108.74	TLSv1...	4194	Server Hello
3548	26.209389	52.239.160.36	172.27.108.74	TLSv1...	1378	Continuation Data
3550	26.211437	172.27.108.74	52.239.160.36	TLSv1...	128	Application Data
3551	26.212331	172.27.108.74	52.239.160.36	TLSv1...	215	Application Data
3558	26.517321	52.239.160.36	172.27.108.74	TLSv1...	157	Application Data
3559	26.517321	52.239.160.36	172.27.108.74	TLSv1...	660	Application Data
3563	26.721169	23.210.45.116	172.27.108.74	TLSv1...	78	Application Data
3574	27.540159	172.27.108.74	216.239.38.120	UDP	57	53680 → 31337 Len=15

▶ Frame 3574: 57 bytes on wire (456 bits), 57 bytes captured (456 bits) on interface \Device\NPF_{4482D71F-1CD3-45AF-962F-7A37867B5342}, id 0

▶ Ethernet II, Src: Intel_35:f4:58 (f4:26:79:35:f4:58), Dst: Cisco_5b:96:5d (00:26:99:5b:96:5d)

▶ Internet Protocol Version 4, Src: 172.27.108.74, Dst: 216.239.38.120

▶ User Datagram Protocol, Src Port: 53680, Dst Port: 31337

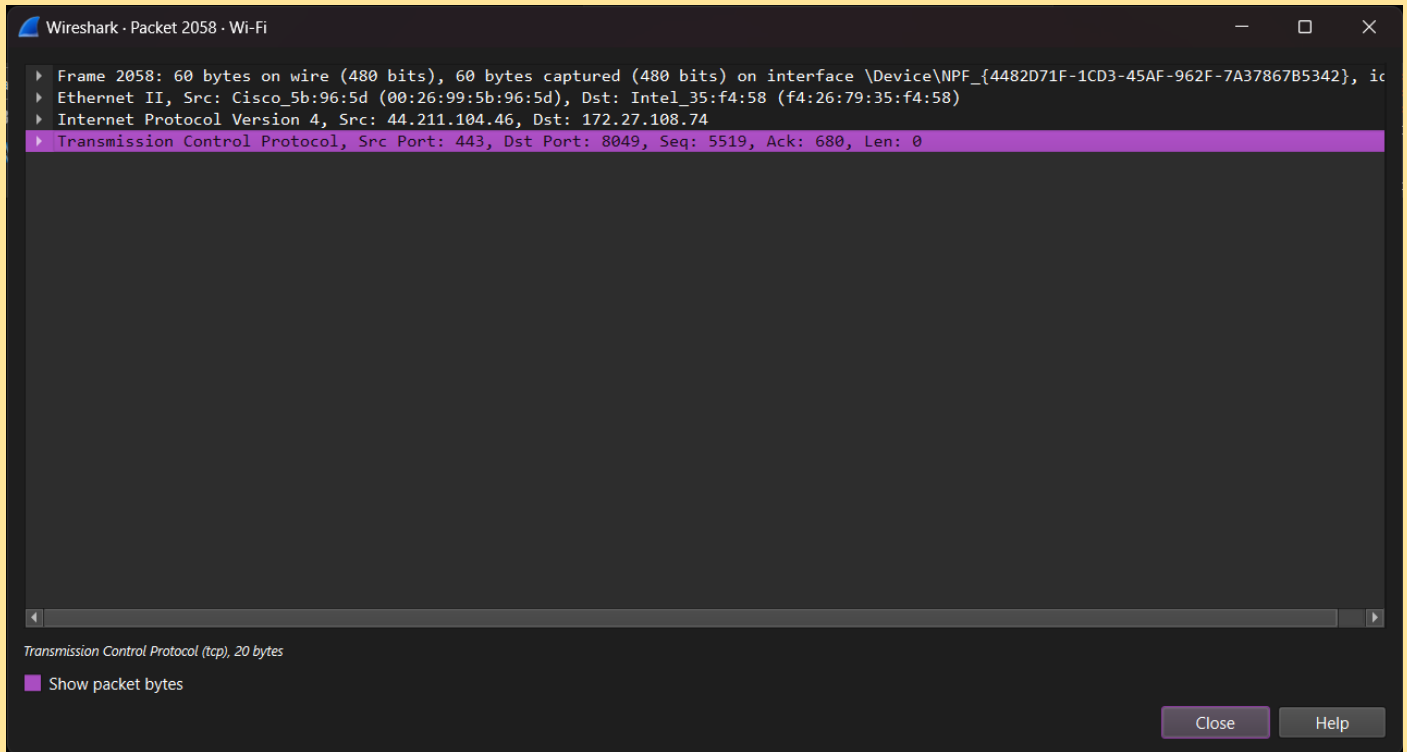
▶ Data (15 bytes)

wireshark_Wi-FIKJEQN2.pcapng

Packets: 3653 · Displayed: 3653 (100.0%) · Dropped: 0 (0.0%)

Profile: Default

a)

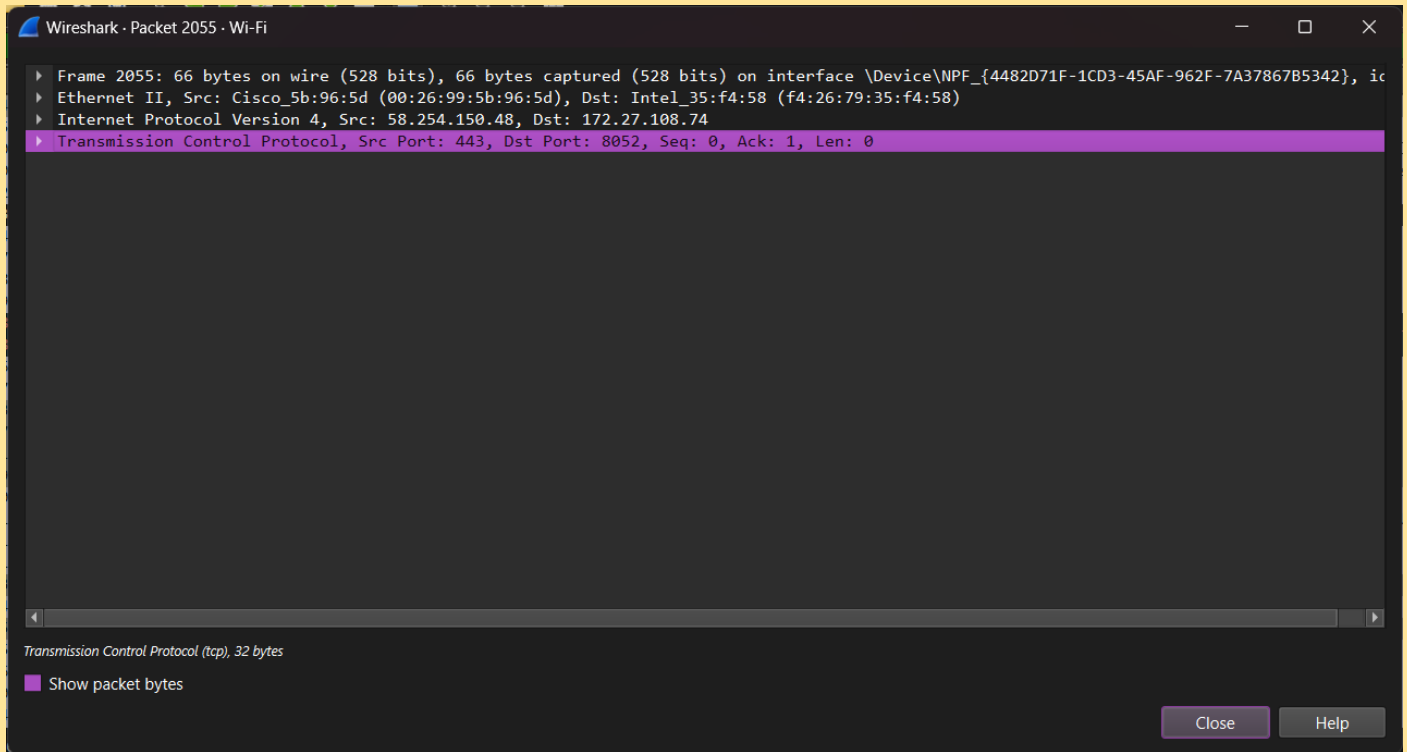


- i) Physical Layer: Bit
- ii) Link Layer: Ethernet 2
- iii) Network Layer: Internet Protocol Version 4 (IPV4)
- iv) Transport Layer: Transmission Control Protocol (TCP)

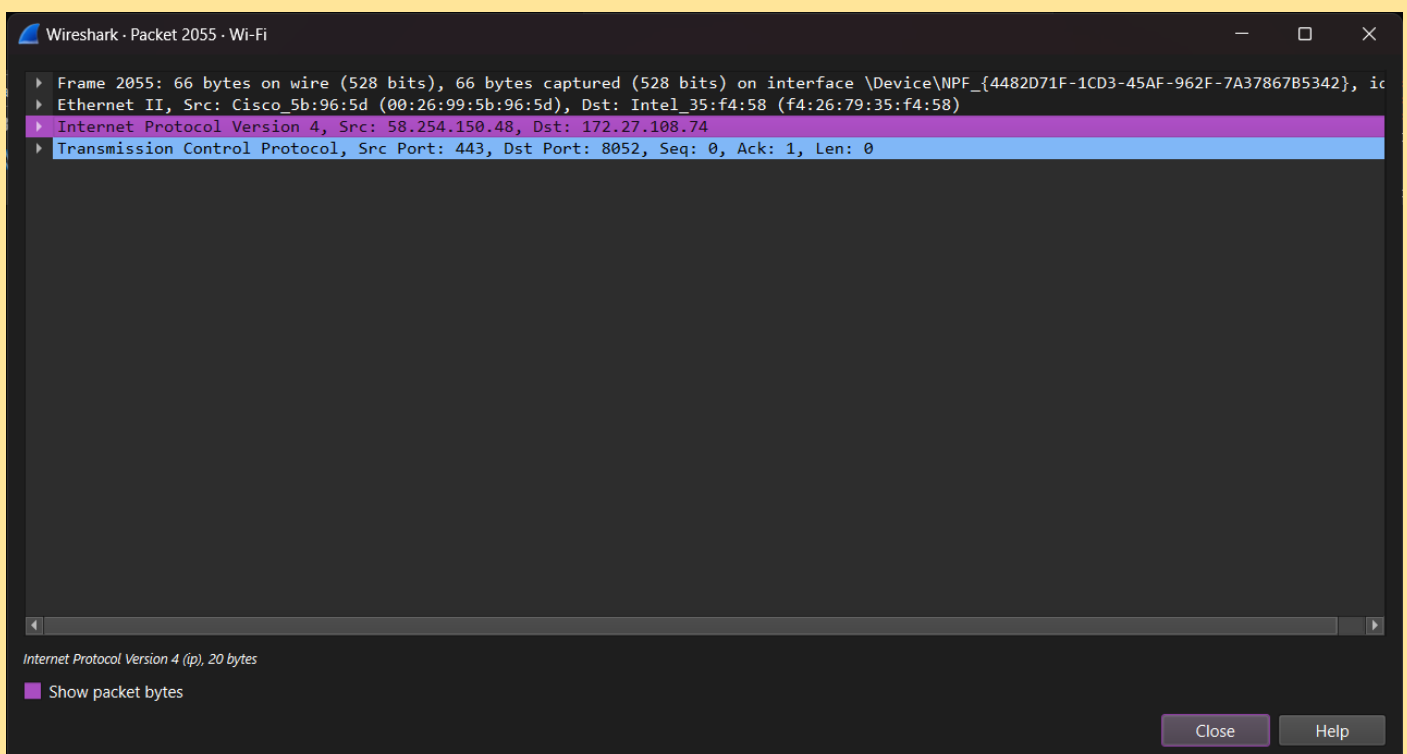
b)

کل بیت ها بوسیله لایه فیزیکی انتقال پیدا می کنند و ابتدای بیت ها مربوط به link layer است، بعد network layer، بعد transport layer و در آخر هم بیت های مربوط به application layer قرار می گیرند.

c) 32 bytes یا 256 bits



d) 20 bytes 160 bits



(f

— 4b (a

(b

i) ARP:

No.	Time	Source	Destination	Protocol	Length	Info
19	0.000000	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.236? Tell 172.27.107.254
20	0.000000	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.237? Tell 172.27.107.254
21	0.000000	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.242? Tell 172.27.107.254
22	0.000000	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.243? Tell 172.27.107.254
23	0.000000	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.244? Tell 172.27.107.254
24	0.000000	XiaomiCommun_4a:00...	Broadcast	ARP	60	Who has 172.27.107.254? Tell 172.27.107.252
25	0.301566	d6:59:44:86:03:b5	Broadcast	ARP	60	Who has 172.27.96.1? Tell 172.27.107.243
29	0.609367	4a:de:e8:0b:45:64	Broadcast	ARP	60	Who has 172.27.107.254? Tell 172.27.107.231
30	0.609367	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.248? Tell 172.27.107.254
31	0.609367	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.249? Tell 172.27.107.254
32	0.609367	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.224? Tell 172.27.107.254
33	0.609367	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.253? Tell 172.27.107.254
34	0.609367	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.255? Tell 172.27.107.254
38	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.226? Tell 172.27.107.254
39	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.227? Tell 172.27.107.254
40	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.230? Tell 172.27.107.254
41	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.232? Tell 172.27.107.254
42	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.234? Tell 172.27.107.254
43	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.235? Tell 172.27.107.254
44	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.236? Tell 172.27.107.254
45	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.237? Tell 172.27.107.254
46	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.242? Tell 172.27.107.254
47	0.917181	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.244? Tell 172.27.107.254
53	1.530405	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.248? Tell 172.27.107.254
54	1.530405	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.249? Tell 172.27.107.254
55	1.530405	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.224? Tell 172.27.107.254
56	1.530405	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.253? Tell 172.27.107.254
74	2.144872	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.226? Tell 172.27.107.254
75	2.144872	OnePathNetwo_51:9c...	Broadcast	ARP	64	Who has 172.27.107.230? Tell 172.27.107.254

▶ Frame 25: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface \Device\NPF_{4482D71F-1CD3-45AF-962F-7A37867B5342}, id 0
 ▶ Ethernet II, Src: d6:59:44:86:03:b5 (d6:59:44:86:03:b5), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
 ▶ Address Resolution Protocol (request)

Ethernet (eth), 32 bytes

Packets: 3653 · Displayed: 3653 (100.0%)

Profile: Default

فقد لایه های application layer ، transport layer و network layer است.

ii) ICMPv6, IGMPv2:

No.	Time	Source	Destination	Protocol	Length	Info
3570	27.146597	8.8.8.8	172.27.108.74	DNS	90	Standard query response 0x09fb A www.google.com A 216.239.38.120
221	4.330090	172.27.108.74	92.123.106.33	HTTP	165	GET /connecttest.txt HTTP/1.1
223	4.500127	92.123.106.33	172.27.108.74	HTTP	241	HTTP/1.1 200 OK (text/plain)
101	3.237079	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
238	5.216627	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
347	5.929548	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
1573	9.115438	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
1598	9.212626	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
1711	9.519551	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
2070	10.444867	fe80::aee7:ad4b:52a...	ff02::1	ICMPv6	86	Neighbor Advertisement fe80::aee7:ad4b:52af:fe8e (ovr) is at dc:46:28:bb:fa:99
2199	11.018119	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
2804	12.253769	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
3244	13.531070	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac
3269	15.049952	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
3271	15.049952	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
3277	15.661442	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
3390	18.734878	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
3436	20.169577	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac
3442	20.232978	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
3487	23.657138	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from 50:2b:73:29:4f:10
3488	23.657138	fe80::1	ff02::1	ICMPv6	78	Router Advertisement from c8:3a:35:10:c8:48
3513	24.579105	fe80::b26c:27ea:5e...	ff02::1	ICMPv6	86	Neighbor Advertisement fe80::b26c:27ea:5ec9:f0ef (ovr) is at 5c:80:b6:98:6b:1a
3526	24.886417	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
3579	27.957009	fe80::3e84:6aff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 3c:84:6a:59:25:ac
3589	28.264714	fe80::25f:67ff:fe0...	ff02::1	ICMPv6	86	Router Advertisement from 00:5f:67:04:25:9c
3614	29.185753	fe80::3660:f9ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 34:60:f9:75:59:12
3628	30.054624	fe80::16eb:b6ff:fe...	ff02::1	ICMPv6	86	Router Advertisement from 14:eb:b6:60:8b:10
100	3.232540	172.27.108.74	239.255.255.250	IGMPv2	46	Membership Report group 239.255.255.250
232	4.725545	172.27.108.74	224.0.0.252	IGMPv2	46	Membership Report group 224.0.0.252

▶ Frame 2070: 86 bytes on wire (688 bits), 86 bytes captured (688 bits) on interface \Device\NPF_{4482D71F-1CD3-45AF-962F-7A37867B5342}, id 0
 ▶ Ethernet II, Src: Intel_bb:fa:99 (dc:46:28:bb:fa:99), Dst: IPv6mcast_01 (33:33:00:00:00:01)
 ▶ Internet Protocol Version 6, Src: fe80::aee7:ad4b:52af:fe8e, Dst: ff02::1
 ▶ Internet Control Message Protocol v6

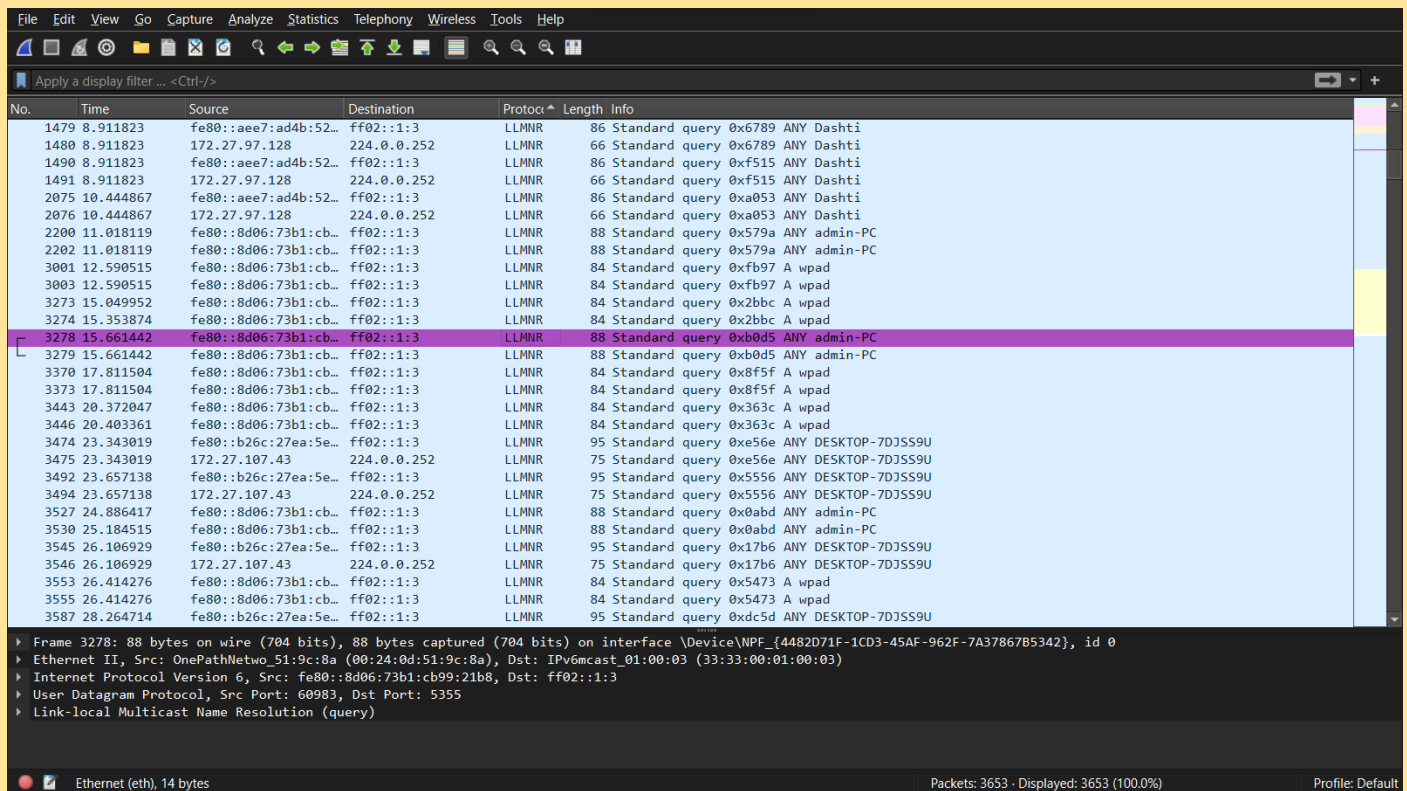
Ethernet (eth), 14 bytes

Packets: 3653 · Displayed: 3653 (100.0%)

Profile: Default

فقد لایه های application layer و transport layer است.

iii) Link-local Multicast Name Resolution, Multicast Domain Name System:



The image shows a Wireshark packet capture of LLMNR (Link-Local Multicast Name Resolution) traffic. The packet list table displays various queries and responses. The selected packet (No. 3278) is a query from fe80::8d06:73b1:cb... to ff02::1:3, asking for the IP address of 'admin-PC'.

No.	Time	Source	Destination	Protocol	Length	Info
1479	8.911823	fe80::aee7:ad4b:52...	ff02::1:3	LLMNR	86	Standard query 0x6789 ANY Dashti
1480	8.911823	172.27.97.128	224.0.0.252	LLMNR	66	Standard query 0x6789 ANY Dashti
1490	8.911823	fe80::aee7:ad4b:52...	ff02::1:3	LLMNR	86	Standard query 0xf515 ANY Dashti
1491	8.911823	172.27.97.128	224.0.0.252	LLMNR	66	Standard query 0xf515 ANY Dashti
2075	10.444867	fe80::aee7:ad4b:52...	ff02::1:3	LLMNR	86	Standard query 0xa053 ANY Dashti
2076	10.444867	172.27.97.128	224.0.0.252	LLMNR	66	Standard query 0xa053 ANY Dashti
2200	11.018119	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	88	Standard query 0x579a ANY admin-PC
2202	11.018119	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	88	Standard query 0x579a ANY admin-PC
3001	12.590515	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0xfb97 A wpad
3003	12.590515	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0xfb97 A wpad
3273	15.049952	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0x2bbc A wpad
3274	15.353874	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0x2bbc A wpad
3278	15.661442	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	88	Standard query 0xb0d5 ANY admin-PC
3279	15.661442	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	88	Standard query 0xb0d5 ANY admin-PC
3370	17.811504	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0x8f5f A wpad
3373	17.811504	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0x8f5f A wpad
3443	20.372047	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0x363c A wpad
3446	20.403361	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0x363c A wpad
3474	23.343019	fe80::b26c:27ea:5e...	ff02::1:3	LLMNR	95	Standard query 0xe56e ANY DESKTOP-7DJSS9U
3475	23.343019	172.27.107.43	224.0.0.252	LLMNR	75	Standard query 0xe56e ANY DESKTOP-7DJSS9U
3492	23.657138	fe80::b26c:27ea:5e...	ff02::1:3	LLMNR	95	Standard query 0x5556 ANY DESKTOP-7DJSS9U
3494	23.657138	172.27.107.43	224.0.0.252	LLMNR	75	Standard query 0x5556 ANY DESKTOP-7DJSS9U
3527	24.886417	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	88	Standard query 0x0abd ANY admin-PC
3530	25.184515	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	88	Standard query 0x0abd ANY admin-PC
3545	26.106929	fe80::b26c:27ea:5e...	ff02::1:3	LLMNR	95	Standard query 0x17b6 ANY DESKTOP-7DJSS9U
3546	26.106929	172.27.107.43	224.0.0.252	LLMNR	75	Standard query 0x17b6 ANY DESKTOP-7DJSS9U
3553	26.414276	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0x5473 A wpad
3555	26.414276	fe80::8d06:73b1:cb...	ff02::1:3	LLMNR	84	Standard query 0x5473 A wpad
3587	28.264714	fe80::b26c:27ea:5e...	ff02::1:3	LLMNR	95	Standard query 0xdc5d ANY DESKTOP-7DJSS9U

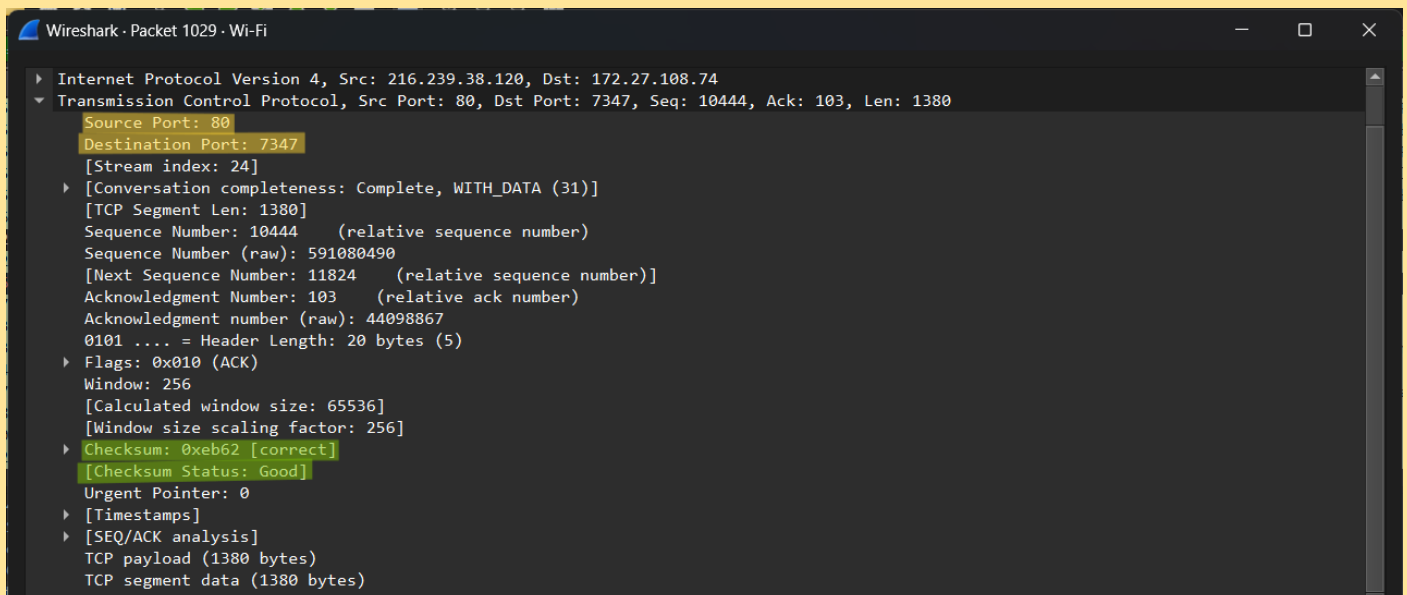
Frame 3278: 88 bytes on wire (704 bits), 88 bytes captured (704 bits) on interface \Device\NPF_{4482D71F-1CD3-45AF-962F-7A37867B5342}, id 0
Ethernet II, Src: OnePathNetwo_51:9c:8a (00:24:0d:51:9c:8a), Dst: IPv6mcast_01:00:03 (33:33:00:01:00:03)
Internet Protocol Version 6, Src: fe80::8d06:73b1:cb99:21b8, Dst: ff02::1:3
User Datagram Protocol, Src Port: 60983, Dst Port: 5355
Link-local Multicast Name Resolution (query)

Ethernet (eth), 14 bytes Packets: 3653 · Displayed: 3653 (100.0%) Profile: Default

فقد لايه ي application layer است.

(۴

a) TCP:

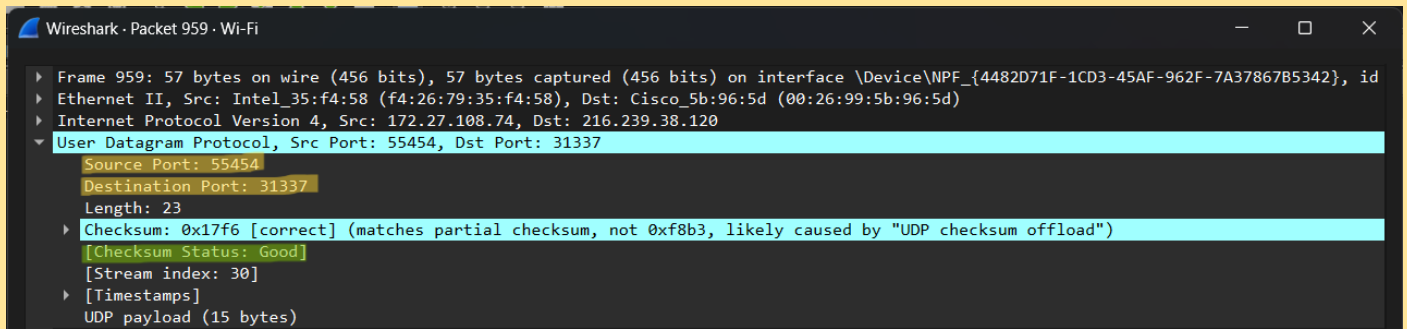


The image shows a Wireshark packet capture of a TCP segment. The packet list table displays the segment details. The selected packet (No. 1029) is a TCP segment from 216.239.38.120 to 172.27.108.74, Seq: 10444, Ack: 103, Len: 1380.

No.	Time	Source	Destination	Protocol	Length	Info
1029	0.000000	216.239.38.120	172.27.108.74	TCP	1380	Seq: 10444, Ack: 103, Len: 1380

Internet Protocol Version 4, Src: 216.239.38.120, Dst: 172.27.108.74
Transmission Control Protocol, Src Port: 80, Dst Port: 7347, Seq: 10444, Ack: 103, Len: 1380
Source Port: 80
Destination Port: 7347
[Stream index: 24]
[Conversation completeness: Complete, WITH_DATA (31)]
[TCP Segment Len: 1380]
Sequence Number: 10444 (relative sequence number)
Sequence Number (raw): 591080490
[Next Sequence Number: 11824 (relative sequence number)]
Acknowledgment Number: 103 (relative ack number)
Acknowledgment number (raw): 44098867
0101 = Header Length: 20 bytes (5)
Flags: 0x010 (ACK)
Window: 256
[Calculated window size: 65536]
[Window size scaling factor: 256]
Checksum: 0xeb62 [correct]
[Checksum Status: Good]
Urgent Pointer: 0
[Timestamps]
[SEQ/ACK analysis]
TCP payload (1380 bytes)
TCP segment data (1380 bytes)

b) UDP:



(5)

a) Handshake:

No.	Time	Source	Destination	Protocol	Length	Info
64	2.049455	172.27.108.74	216.239.38.120	TCP	66	8303 → 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM
65	2.085201	216.239.38.120	172.27.108.74	TCP	66	80 → 8303 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1380 SACK_PERM WS=256
66	2.085317	172.27.108.74	216.239.38.120	TCP	54	8303 → 80 [ACK] Seq=1 Ack=1 Win=66048 Len=0
67	2.087889	172.27.108.74	216.239.38.120	HTTP	156	GET / HTTP/1.0
68	2.124019	216.239.38.120	172.27.108.74	TCP	60	80 → 8303 [ACK] Seq=1 Ack=103 Win=65536 Len=0
71	2.356587	216.239.38.120	172.27.108.74	HTTP	9714	HTTP/1.0 200 OK (text/html)
72	2.356587	216.239.38.120	172.27.108.74	TCP	1125	80 → 8303 [PSH, ACK] Seq=9661 Ack=103 Win=65536 Len=1071 [TCP segment of a reassembled PDU]
73	2.356587	216.239.38.120	172.27.108.74	HTTP	2814	Continuation
74	2.356816	172.27.108.74	216.239.38.120	TCP	54	8303 → 80 [ACK] Seq=103 Ack=13492 Win=66048 Len=0
75	2.373405	216.239.38.120	172.27.108.74	HTTP	1434	Continuation
76	2.391769	216.239.38.120	172.27.108.74	HTTP	5574	Continuation
77	2.391926	172.27.108.74	216.239.38.120	TCP	54	8303 → 80 [ACK] Seq=103 Ack=20392 Win=66048 Len=0
78	2.394890	216.239.38.120	172.27.108.74	HTTP	670	Continuation
79	2.394976	172.27.108.74	216.239.38.120	TCP	54	8303 → 80 [ACK] Seq=103 Ack=21009 Win=65536 Len=0
80	2.418804	172.27.108.74	216.239.38.120	TCP	54	8303 → 80 [FIN, ACK] Seq=103 Ack=21009 Win=65536 Len=0
81	2.453237	216.239.38.120	172.27.108.74	TCP	60	80 → 8303 [ACK] Seq=21009 Ack=104 Win=65536 Len=0

i) Client → Server: Seq number: 0, Ack number: 0, Window size: 64240, tcp.flags.syn = 1,

tcp.flags.ack = 0, tcp.flags.fin = 0;

ii) Server → Client: Seq number: 0, Ack number: 1, Window size: 65535, tcp.flags.syn = 1,

tcp.flags.ack = 1, tcp.flags.fin = 0;

iii) Client → Server: Seq number: 1, Ack number: 1, Window size: 512 tcp.flags.syn = 0,

tcp.flags.ack = 1, tcp.flags.fin = 0;

ابتدا کلاینت به سرور درخواست سینک شدن می فرستد با فعال کردن tcp.flags.syn بعد سرور درخواست کلاینت را با قبول

کردن شماره سکونس می پذیرد و بیت های مربوط به tcp.flags.ack و tcp.flags.syn را یک می کنه و برای کلاینت ارسال می

کند و کلاینت هم با قبول کردن سکونس نامبر قبلی درخواستش را پاسخ می دهد.

b) Connection Closer:

No.	Time	Source	Destination	Protocol	Length	Info
236	10.561522	172.27.108.74	216.239.38.120	TCP	66	8345 → 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM
237	10.596850	216.239.38.120	172.27.108.74	TCP	66	80 → 8345 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1380 SACK_PERM WS=256
238	10.597142	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=1 Ack=1 Win=131072 Len=0
239	10.599076	172.27.108.74	216.239.38.120	HTTP	156	GET / HTTP/1.0
240	10.636243	216.239.38.120	172.27.108.74	TCP	60	80 → 8345 [ACK] Seq=1 Ack=103 Win=65536 Len=0
243	10.854607	216.239.38.120	172.27.108.74	HTTP	9714	HTTP/1.0 200 OK (text/html)
244	10.854607	216.239.38.120	172.27.108.74	TCP	989	80 → 8345 [PSH, ACK] Seq=9661 Ack=103 Win=65536 Len=935 [TCP segment of a reassembled PDU]
245	10.854607	216.239.38.120	172.27.108.74	TCP	298	80 → 8345 [PSH, ACK] Seq=10596 Ack=103 Win=65536 Len=244 [TCP segment of a reassembled PDU]
246	10.854607	216.239.38.120	172.27.108.74	HTTP	1434	Continuation
247	10.854772	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=103 Ack=12220 Win=131072 Len=0
248	10.875953	216.239.38.120	172.27.108.74	HTTP	1434	Continuation
249	10.890093	216.239.38.120	172.27.108.74	HTTP	2814	Continuation
250	10.890143	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=103 Ack=16360 Win=131072 Len=0
251	10.891625	216.239.38.120	172.27.108.74	HTTP	2814	Continuation
252	10.891672	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=103 Ack=19120 Win=131072 Len=0
253	10.895712	216.239.38.120	172.27.108.74	TCP	1434	80 → 8345 [ACK] Seq=19120 Ack=103 Win=65536 Len=1380 [TCP segment of a reassembled PDU]
254	10.895712	216.239.38.120	172.27.108.74	HTTP	570	Continuation
255	10.895776	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=103 Ack=21017 Win=131072 Len=0
256	10.905482	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [FIN, ACK] Seq=103 Ack=21017 Win=131072 Len=0
257	10.940308	216.239.38.120	172.27.108.74	TCP	60	80 → 8345 [ACK] Seq=21017 Ack=104 Win=65536 Len=0

i) Client → Server: Seq number = 20104, Ack number = 103, Window size = 256,

tcp.flags.syn = 0, tcp.flags.ack = 1, tcp.flags.fin = 1;

ii) Server → Client: Seq number: 103, Ack number: 21068, Window size: 508, Tcp.flags.syn = 0,

Tcp.flags.ack = 1, tcp.flags.fin = 0;

iii) Server → Client: Seq number: 103, Ack number: 21068, Window size: 508, Tcp.flags.syn = 0,

Tcp.flags.ack = 1, tcp.flags.fin = 1;

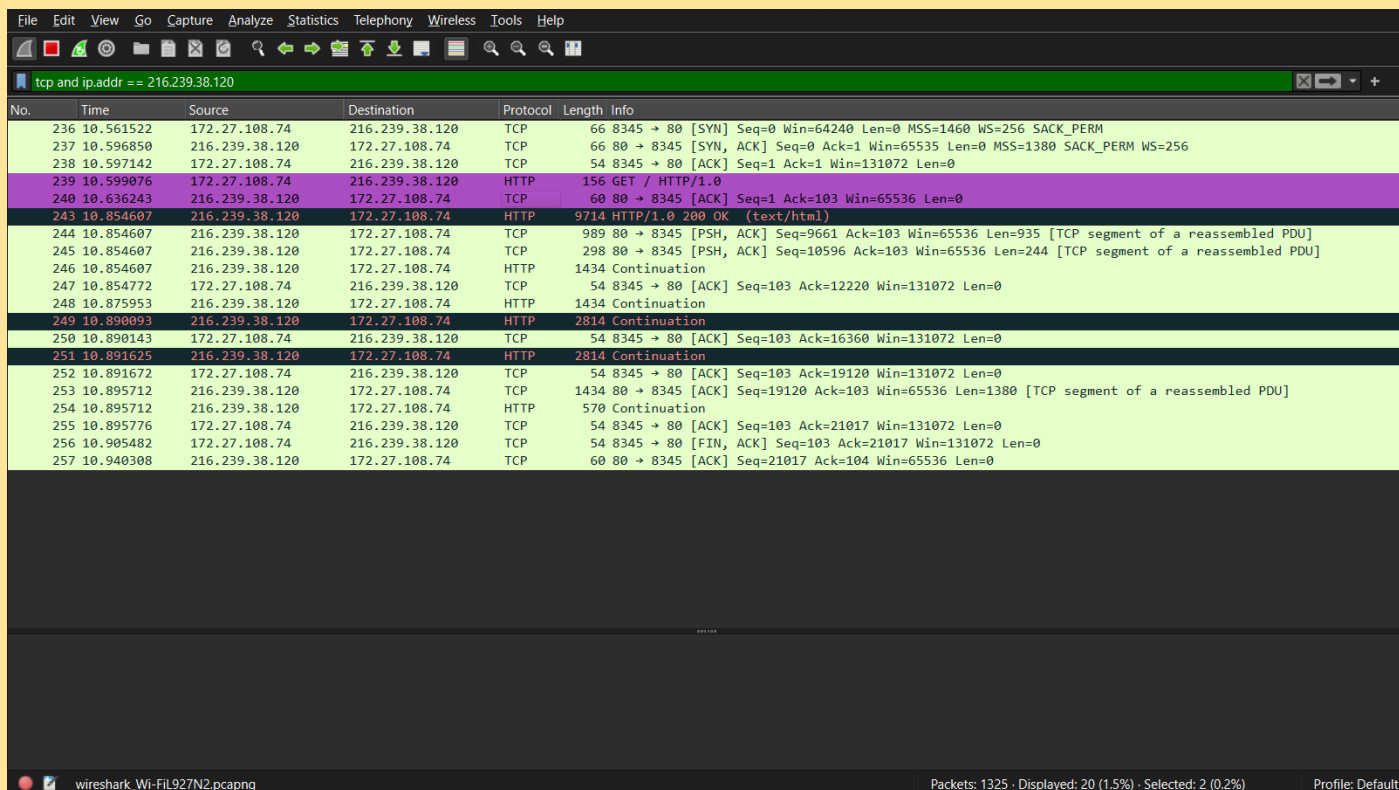
iv) Client → Server: Seq number: 21068, Ack number: 104, Window size: 256, Tcp.flags.syn = 0,

Tcp.flags.ack = 1, tcp.flags.fin = 0;

ابتدا کلاینت درخواست fin را به سرور می دهد و منتظر پاسخ سرور می ایستد بعد سر و fin و ack قبلی را در جواب کلاینت پشت

سر هم می فرستد و کلاینت هم با ack کردن درخواست سرور ارتباط را می بندد.

c) Connection Duration:



No.	Time	Source	Destination	Protocol	Length	Info
236	10.561522	172.27.108.74	216.239.38.120	TCP	66	8345 → 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM
237	10.596850	216.239.38.120	172.27.108.74	TCP	66	80 → 8345 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1380 SACK_PERM WS=256
238	10.597142	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=1 Ack=1 Win=131072 Len=0
239	10.599076	172.27.108.74	216.239.38.120	HTTP	156	GET / HTTP/1.0
240	10.636243	216.239.38.120	172.27.108.74	TCP	60	80 → 8345 [ACK] Seq=1 Ack=103 Win=65536 Len=0
243	10.854607	216.239.38.120	172.27.108.74	HTTP	9714	HTTP/1.0 200 OK (text/html)
244	10.854607	216.239.38.120	172.27.108.74	TCP	989	80 → 8345 [PSH, ACK] Seq=9661 Ack=103 Win=65536 Len=935 [TCP segment of a reassembled PDU]
245	10.854607	216.239.38.120	172.27.108.74	TCP	298	80 → 8345 [PSH, ACK] Seq=10596 Ack=103 Win=65536 Len=244 [TCP segment of a reassembled PDU]
246	10.854607	216.239.38.120	172.27.108.74	HTTP	1434	Continuation
247	10.854772	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=103 Ack=12220 Win=131072 Len=0
248	10.875953	216.239.38.120	172.27.108.74	HTTP	1434	Continuation
249	10.890093	216.239.38.120	172.27.108.74	HTTP	2814	Continuation
250	10.890143	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=103 Ack=16360 Win=131072 Len=0
251	10.891625	216.239.38.120	172.27.108.74	HTTP	2814	Continuation
252	10.891672	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=103 Ack=19120 Win=131072 Len=0
253	10.895712	216.239.38.120	172.27.108.74	TCP	1434	80 → 8345 [ACK] Seq=19120 Ack=103 Win=65536 Len=1380 [TCP segment of a reassembled PDU]
254	10.895712	216.239.38.120	172.27.108.74	HTTP	570	Continuation
255	10.895776	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [ACK] Seq=103 Ack=21017 Win=131072 Len=0
256	10.905482	172.27.108.74	216.239.38.120	TCP	54	8345 → 80 [FIN, ACK] Seq=103 Ack=21017 Win=131072 Len=0
257	10.940308	216.239.38.120	172.27.108.74	TCP	60	80 → 8345 [ACK] Seq=21017 Ack=104 Win=65536 Len=0

i) Client → Server: Seq number: 1, Ack number: 1, Window size: 512, Tcp.flags.syn = 0, Tcp.flags.ack = 1, tcp.flags.fin = 0;

ii) Server → Client: Seq number: 1, Ack number: 103, Window size: 256, Tcp.flags.syn = 0, Tcp.flags.ack = 1, tcp.flags.fin = 0;

کلاینت درخواست خودش را با سکونس نامبری به سمت سرور ارسال می کند و سرور با اک نامبر سکونس بعدی و سکونس نامبر

خودش به درخواست کلاینت پاسخ می دهد.

(9)

No.	Time	Source	Destination	Protocol	Length	Info
327	4.471022	172.27.108.74	8.8.8.8	DNS	83	Standard query 0xc40c A www.msftconnecttest.com
337	4.478081	8.8.8.8	172.27.108.74	DNS	227	Standard query response 0xc40c A www.msftconnecttest.com CNAME ncsi-geo.trafficmanager.net CNAME www.msftncsi.com.ed...
395	5.348326	172.27.108.74	8.8.8.8	DNS	73	Standard query 0x1aa8 A www.yahoo.com
396	5.351508	8.8.8.8	172.27.108.74	DNS	150	Standard query response 0x1aa8 A www.yahoo.com CNAME me-ycpi-cf-www.g06.yahoodns.net A 87.248.116.12 A 87.248.116.11
745	10.4561...	172.27.108.74	8.8.8.8	DNS	73	Standard query 0x70f3 A www.iut.ac.ir
746	10.4590...	8.8.8.8	172.27.108.74	DNS	89	Standard query response 0x70f3 A www.iut.ac.ir A 176.101.52.155

Response time www.yahoo.com: [Time: 0.003182000 seconds];

Response time www.iut.ac.ir: [Time: 0.002912000 seconds]

Protocol Hierarchy:

Protocol	Percent Packets	Packets	Percent Bytes	Bytes	Bits/s	End Packets	End Bytes	End Bits/s	PDUs
Frame	100.0	4	100.0	385	602	0	0	0	4
Ethernet	100.0	4	14.5	56	87	0	0	0	4
Internet Protocol Version 4	100.0	4	20.8	80	125	0	0	0	4
User Datagram Protocol	100.0	4	8.3	32	50	0	0	0	4
Domain Name System	100.0	4	56.4	217	339	4	217	339	4

(V)

Wireshark · Follow TCP Stream (tcp.stream eq 8) · Wi-Fi

```

GET / HTTP/1.0
User-Agent: Wget/1.11.4
Accept: /*/*
Host: www.google.com
Connection: Keep-Alive

HTTP/1.0 200 OK
Date: Fri, 17 May 2024 13:26:16 GMT
Expires: -1
Cache-Control: private, max-age=0
Content-Type: text/html; charset=ISO-8859-1
Content-Security-Policy-Report-Only: object-src 'none';base-uri 'self';script-src 'nonce-T6p7bTjDCEqR10GH0nUpg' 'strict-dynamic' 'report-sample' 'unsafe-eval' 'unsafe-inli
ne' https://http://report-uri https://csp.withgoogle.com/csp/gws/other-hp
P3P: CP="This is not a P3P policy! See g.co/p3phelp for more info."
Server: gws
X-XSS-Protection: 0
X-Frame-Options: SAMEORIGIN
Set-Cookie: IP_JAR=2024-05-17-13; expires=Sun, 16-Jun-2024 13:26:16 GMT; path=/; domain=.google.com; Secure
Set-Cookie: AEC=AQTF6Hw_sYwu-1B3D7WCj08bEMI8X9q-DK30ssZRbELg06YmJPTjnCZCgQ; expires=Wed, 13-Nov-2024 13:26:16 GMT; path=/; domain=.google.com; Secure; HttpOnly; SameSite=la
x
Set-Cookie: NID=514=bFqN53Jo8sxK8N_5IFi54HKGEISVcm_iOVZEdwpWLghV7gN_wo0ofgtKcf7n0Gu8DOXNskyrYWNiQ1A3qQToy2ZX9beGA-2ei6E9zWXA0UHEwsTZwFV4r0qOXdejK80I3qTfd7ljXJaAWNxx8aBZr8r
W-ruziAptv2sJxIHB0; expires=Sat, 16-Nov-2024 13:26:16 GMT; path=/; domain=.google.com; HttpOnly
Accept-Ranges: none
Vary: Accept-Encoding

<!doctype html><html itemscope="" itemtype="http://schema.org/WebPage" lang="en-IR"><head><meta content="Search the world's information, including webpages, images, videos
and more. Google has many special features to help you find exactly what you're looking for." name="description"><meta content="noodp, " name="robots"><meta content="text/h
tml; charset=UTF-8" http-equiv="Content-Type"><meta content="/images/branding/google/1x/googleg_standard_color_128dp.png" itemprop="image"><title>Google</title><script non
ce="T6p7bTjDCEqR10GH0nUpg">(function(){var _g={kEI:'-FpHZrbaKuTBkPIPyoKpgAU',kEXPI:'0,18167,3682082,700,361,79,302121,236535,2872,2891,561,11193,31274,30022,16105,230,1793
1,89311,6636,49751,2,16737,23024,6699,41943,57740,2,2,1,24626,2006,8155,8860,14490,8703,13733,9779,42459,20198,73179,3030,15816,1804,7734,18674,685,19989,843,789,13496,3756
3,5303,5211784,1078,5992244,2839593,2,37,273,7442292,19357858,1182080,16672,43887,3,318,4,1281,3,2121778,2585,24111,23005240,8163,3394,1242,8409,8027,8637,28027,36870,1923,
8588,2370,6407,13845,15165,2576,5392,213,390,7527,5327,4496,5,132,10823,3096,13494,2347,1793,10085,10991,359,236,2299,182,523,3749,155,399,2085,8947,21,4536,7735,9,5264,3,1
1 client pkt, 7 server pkts, 1 turn.
  
```

Entire conversation (21 kB) Show data as ASCII Stream 8

Find:

```
Wireshark - Follow TCP Stream (tcp.stream eq 8) - Wi-Fi

;return b)function r(a){/http:/i.test(a)&&"https:"==window.location.protocol&&(google.ml&&google.ml(Error("a"),1,{src:a,glmm:1}),a=="");return a}
function t(a,b,c,d,k){var e="";-1==b.search("&ei=")&&(e="&ei="+p(d),-1==b.search("&lei=")&&(d=q(d)&&(e="&lei="+d)));d="";var g=-1==b.search("&csid=")&&"slh"!=a,f=[];f
.push(["xz",Date.now(),t.toString()]);h._csid&&g&&f.push(["csid",h._csid]);c=c();null!=c&&f.push(["opi",c.toString()]);for(c=0;c<f.length;c++){if(0===c)[0<c]<d+&";d+=f[c]
[0]+&"+f[c][1]]return"/"+k[1]"gen_204"}+&atyp=i&ct="+String(a)+"&cad="+b(e+d));m=google.kEI;google.getEI=p;google.ml=function(){return null};google.log=f
unction(a,b,c,d,k,e){e=void 0===e?!1;e;||((c=t(a,b,e,d,k));if(c=c(c))={a:new Image;var g=n.length;n[g]=a;a.onerror=a.onload=a.onabort=function(){delete n[g]};a.src=c}};google
.logUrl=function(a,b){b=void 0===b?!1;return t("","a,b");}).call(this);function(){google.y=y;google.y=y;google.x=function(a,b){if(a)var c=a.id;else{do c=Math.random();w
hile(google.y[c])google.y[c]=[a,b];return!1};google.sx=function(a){google.sy.push(a)};google.lm=[];google.plm=function(a){google.lm.push.apply(google.lm,a)};google.lq=[];g
oogle.load=function(a,b,c){google.lq.push([a,b,c]);google.loadAll=function(a,b){google.lq.push([a,b]);google.bx=!1;google.lx=function(){var d=[];google.fce=function(a
,b,c,e){d.push([a,b,c,e]);google.qce=d;}).call(this);google.f={};(function(){
document.documentElement.addEventListener("submit",function(b){var a;if(a=b.target){var c=a.getAttribute("data-submitfalse");a="1"===c||"q"===c&&!a.elements.q.value?!0:1!}e
lse a=!1;a&&(b.preventDefault(),b.stopPropagation()),10);document.documentElement.addEventListener("click",function(b){var a;a={for(a=b.target;a&&a!=document.documentElement
ent;a=a.parentElement)if("A"===a.tagName){a="1"===a.getAttribute("data-nohref");break a}a=!1;a&&b.preventDefault(),10);}).call(this);<script><style>#gbar,#guser{font-size
:13px;padding-top:1px !important;}#gbar{height:22px}#guser{padding-bottom:7px !important;text-align:right}.gbh,.gbd{border-top:1px solid #c9d7f1;font-size:1px}.gbh{height:0
;position:absolute;top:24px;width:100%}@media all{.gb1{height:22px;margin-right:.5em;vertical-align:top}#gbar{float:left}}a.gb1,a.gb4{text-decoration:underline !important}a
.gb1,a.gb4{color:#00c !important}.gb1 .gb4{color:#dd8e27 !important}.gbf .gb4{color:#900 !important}
</style><style>body,td,a,p,.h{font-family:arial,sans-serif}body{margin:0;overflow-y:scroll}#gog{padding:3px 8px 0}td{line-height:1.8em}.gac_m td{line-height:1.7px}form{margin
-bottom:20px}.h{color:#1967d2}em{font-weight:bold;font-style:normal}.lst{height:25px;width:496px}.gsfi,.lst{font:18px arial,sans-serif}.gsfs{font:17px arial,sans-serif}.ds{
display:inline-block;display:inline-block;margin:3px 0 4px;margin-left:4px}input{font-family:inherit}body{background:#fff;color:#000}a{color:#681da8;text-decoration:none}a:ho
ver,a:active{text-decoration:underline}.fl a{color:#1967d2}a:visited{color:#681da8}.sblc{padding-top:5px}.sblc a{display:block;margin:2px 0;margin-left:13px;font-size:11px}.
lsbb{background:#f8f9fa;border:solid 1px;border-color:#dadedc #70757a #70757a #dadedc;height:30px}.lsbb{display:block}#WqQANb a{display:inline-block;margin:0 12px}.lsb{bac
kground:url(/images/nav_logo229.png) 0 -261px repeat-x;color:#000;border:none;cursor:pointer;height:30px;margin:0;outline:0;font:15px arial,sans-serif;vertical-align:top}.l
sb:active{background:#dadedc}.lst:focus{outline:none}<style><script nonce="T6p7bTjDCEqR10GH0nUg">(function(){window.google.erd={jsr:1,bv:2009,de:true};
var h=this||self;var k,l=null!==(k=h.mei)?k:1,n,p=null!==(n=h.sdo)?n:10,q=0,r,t=google.erd,v=t.jsr;google.ml=function(a,b,d,m,e){e=void 0===e?!2:e;b&&(r=a&&a.message);void 0=
=d&&(d={});d.cad="ple_"+google.ple+".aple_"+google.able;if(google.dl)return google.dl(a,e,d,10),null;b=d;if(0?v)(window.console&&console.error(a,b);if(-2===v)throw a;b=!1}e
lse b=!1||!a.message||"Error loading script"===a.message||q=1&&!m?!1:10;if(!b)return null;q++;d=d[{}];b=encodeURIComponent;var c="/gen_204?atyp=i&ei="+b(google.kEI);google
.kEXPI&&(c+="&jexpid="+b(google.kEXPI));c+="&srcp="+b(google.sn)+"&jsr="+b(t.jsr)+
"&bver="+b(t.bv);var f=a.lineNumber;void 0!=f&&(c+="&line="+f);var g=a.fileName;g&&(0<g.indexOf("-extension:/")&&(e=3),c+="&script="+b(g),f&&g===window.location.href&&(f=d
ocument.documentElement.outerHTML.split("\n")[f],c+="&cad="+b(f?f.substring(0,300):"No script found."));google.ple&&1===google.ple&&(e=2);c+="&jsel="+e;for(var u in d)c+="
&"+c+b(u),c+="="+c+b(d[u]);c=c+"&msg="+b(a.name)+" "+a.message; c=c+"&jsst="+b(a.stack||"N/A");12288<c.length&&(c=c.substring(0,12288));a;c;m[!google.log(0,"",a);return a}
;window.onerror=function(a,b,d,m,e){r=!a&&(a=e instanceof Error?e.Error(a),void 0===d||"lineNumber"in a||("a.lineNumber=d",void 0===b||"fileName"in a||("a.fileName=b",google
.ml(a,!1,void 0,!1,"SyntaxError"===a.name||"SyntaxError"===a.message.substring(0,11))|-1!==a.message.indexOf("Script error")?3:0));r=null;p&&q=1&&(window.onerror=null));}
);</script></head><body bgcolor="#ffff"><script nonce="T6p7bTjDCEqR10GH0nUg">(function(){var src="/images/nav_logo229.png";var iesg=false;document.body.onload = function(
1 client pkt, 7 server pkts, 1 turn.

Entire conversation (21 kB) Show data as ASCII Stream 8

Find: Filter Out This Stream Print Save as... Back Close Help
```

```
Wireshark - Follow TCP Stream (tcp.stream eq 8) - Wi-Fi

.ml(a,!1,void 0,!1,"SyntaxError"===a.name||"SyntaxError"===a.message.substring(0,11))|-1!==a.message.indexOf("Script error")?3:0));r=null;p&&q=1&&(window.onerror=null));}
);</script></head><body bgcolor="#ffff"><script nonce="T6p7bTjDCEqR10GH0nUg">(function(){var src="/images/nav_logo229.png";var iesg=false;document.body.onload = function(
){window.n && window.n});if (document.images){new Image().src=src;
if (!iesg)(document.f&&document.f.q.focus();document.gbqf&&document.gbqf.q.focus());
}
);</script><div id="mngb"><div id=gbar><no>b><b class=gb1>Search</b> <a class=gb1 href="https://www.google.com/imghp?hl=en&tab=wi">Images</a> <a class=gb1 href="http://m
aps.google.com/maps?hl=en&tab=wl">Maps</a> <a class=gb1 href="https://play.google.com/?hl=en&tab=w8">Play</a> <a class=gb1 href="https://www.youtube.com/?tab=w1">YouTube</a>
<a class=gb1 href="https://news.google.com/?tab=wn">News</a> <a class=gb1 href="https://mail.google.com/mail/?tab=wm">Gmail</a> <a class=gb1 href="https://drive.google.co
m/?tab=wo">Drive</a> <a class=gb1 style="text-decoration:none" href="https://www.google.com/intl/en/about/products?tab=wh"><u>More</u> &raquo;</a></div><div id=guser
width=100%><no>b><span id=gbn class=gb1></span><span id=gbf class=gbf></span><span id=gbe></span><a href="http://www.google.com/history/optout?hl=en" class=gb4>Web History</
/a>|<a href="/preferences?hl=en" class=gb4>Settings</a>|<a target=_top id=gb_70 href="https://accounts.google.com/ServiceLogin?hl=en&passive=true&continue=http://www.g
oogle.com/&ec=GAZAAQ" class=gb4>Sign in</a></no>b></div><div class=gbh style=left:0></div><div class=gbh style=right:0></div><div><center><br clear="all" id="lpgd"><div id
="lga">
<br><br></div><form action="/search" name="f"><table cellpadding="0" cellspacing="0"><tr valign="top"><td width="25%">&nbsp;</td><td align="center" nowrap=""><input name="
ie" value="ISO-8859-1" type="hidden"><input value="en-IR" name="hl" type="hidden"><input name="source" type="hidden" value="hp"><input name="biw" type="hidden"><input name=
"bih" type="hidden"><div class="ds" style="height:32px;margin:4px 0"><input class="lst" style="margin:0;padding:5px 8px 0 6px;vertical-align:top;color:#000" autocomplete="o
ff" value="" title="Google Search" maxlength="2048" name="q" size="57"></div><br style="line-height:0"><span class="ds"><span class="lsbb"><input class="lsb" value="Google
Search" name="btnG" type="submit"></span><span class="ds"><span class="lsbb"><input class="lsb" id="tsuid_1" value="I'm Feeling Lucky" name="btnI" type="submit"><scr
ipt nonce="T6p7bTjDCEqR10GH0nUg">(function(){var id="tsuid_1";document.getElementById(id).onclick = function(){if (this.form.q.value){this.checked = 1;if (this.form.iflsg
ig)this.form.iflsg.disabled = false;
else top.location="/doodles/";}});</script><input value="AL9hbdgAAAAZkdpcCHKx9caH0m2789i4EP0xfBssuITk" name="iflsg" type="hidden"></span></span></td><td class="fl sblc"
align="left" nowrap="" width="25%"><a href="/advanced_search?hl=en-IR&amp;authser=0">Advanced search</a></td><tr></table><input id="gbv" name="gbv" type="hidden" value="1
"><script nonce="T6p7bTjDCEqR10GH0nUg">(function(){var a,b="1";if (document.getElementById("gbv")){g&&(g.value=a);f&&(g.value=a);f&&window.setTimeout(function(){location.href=f},0);}).
call(this);</script></form><div id="gac_scont"></div><div style="font-size:83%;min-height:3.5em"><br></div><span id="footer"><div style="font-size:10pt"><div style="margin:
19px auto;text-align:center" id="WqQANb"><a href="/intl/en/ads/">Advertising</a><a href="/intl/en/about.html">About Google</a></div><div><p style="font-size:8pt;color:#707
57a">&copy; 2024 - <a href="/intl/en/policies/privacy/">Privacy</a> - <a href="/intl/en/policies/terms/">Terms</a></p></span></div><script nonce="T6p7bTjDCEqR10GH0nUg">
(function(){window.google.cdo={height:757,width:1448};(function(){var a=window.innerWidth,b=window.innerHeight;if(!a||!b){var c=window.document,d="CSS1Compat"===c.compatMod
e?c.documentElement.c.body.a.dad.c.clientWidth:b.d.clientWidthHeight}
if(a&&b&&(a!=google.cdo.width||b!=google.cdo.height)){var e=google,f=e.log,g="/client_204?atyp=i&biw="+a+"&bih="+b+"&ei="+google.kEI,h="",k=[],l=void 0!=window.google&&vo
id 0!=window.google.kOPI&&0!=window.google.kOPI?window.google.kOPI:null;null!=l&&k.push(["opi",l.toString()]);for(var m=0;m<k.length;m++){if(0===m)[0<m]<h+&";h+=k[m][0]+
1 client pkt, 7 server pkts, 1 turn.

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```