The Wireshark Networ	k Analyzer			
File Edit View Go	Capture Analyze Stat	istics Telephony	Wireless Tools Help	
🚄 III 🔬 🙃 📙 🖫	Options	Ctrl+K	Q Q Q II	
Apply a display filter	Start	Ctrl+E		
	■ Stop	Ctrl+E		
	Restart	Ctrl+R		
	Capture Filters			
	Refresh Interfaces	F5		
	using this filter: 📙 En	ter a capture filter		All interfaces shown ▼
	Wi-Fi Local Area Con Local Area Con	nection* 6 nection* 5 vork Connection nection* 12		

No.	Time	Source	Destination	Protocol	Length	Info
16176	91.431733	HonHaiPr_a0:21:f5	IntelCor_66:fa:df	ARP	60	Who has 10.10.151.222? Tell 10.10.162.246
16177	91.436286	10.10.150.185	224.0.0.251	MDNS	103	Standard query 0x003a PTR _233637DEsubgooglecasttcp.lo
16178	91.445932	10.10.160.1	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
16179	91.449140	10.10.150.78	10.255.255.255	UDP	305	54915 → 54915 Len=263
16180	91.461426	10.10.150.182	224.0.0.251	MDNS	103	Standard query 0x0041 PTR _233637DEsubgooglecasttcp.lo
16181	91.469677	10.10.202.7	10.255.255.255	UDP	594	53246 → 3490 Len=552
16182	91.469677	10.10.150.237	224.0.0.251	MDNS	126	Standard query 0x0000 ANY Android-86.local, "QM" question AN
16183	91.472508	Zhejiang_8c:fc:ed	IntelCor_66:fa:df	ARP	60	Gratuitous ARP for 192.168.5.150 (Reply)
16184	91.476729	fe80::dbb0:ad56:efc	ff02::fb	MDNS	146	Standard query 0x0000 ANY Android-86.local, "QM" question AN
16185	91.477086	fe80::3eef:8cff:fe8	ff02::1	ICMPv6	86	Neighbor Advertisement 2001:250:3000:1::1:2 (ovr) is at 3c:e
16186	91.482073	192.168.2.1	239.255.255.250	SSDP	311	NOTIFY * HTTP/1.1
		1 (400 11) > 40				
						Face \Device\NPF_{0DDCE279-1D6F-490A-BCFD-94CD01FDA629}, id 0
> Etherr	net II, Src: M	icrosof_1f:ce:01 (00:1	L5:5d:1f:ce:01), Dst:	IntelCo	r_66:fa	a:df (a4:c3:f0:66:fa:df)
> Addres	ss Resolution	Protocol (request)				

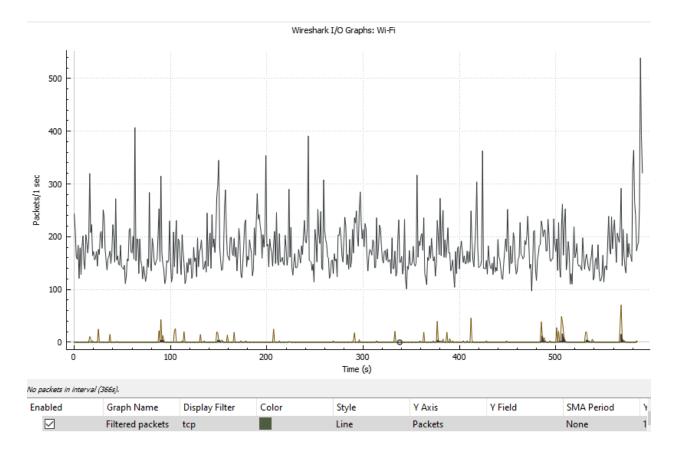
## Wireshark · Display Filters

Filter Name	Filter Expression
Ethernet address 00:00:5e:00:53:00	eth.addr == 00:00:5e:00:53:00
Ethernet type 0x0806 (ARP)	eth.type == 0x0806
Ethernet broadcast	eth.addr == ff:ff:ff:ff:ff
No ARP	not arp
IPv4 only	ip
IPv4 address 192.0.2.1	ip.addr == 192.0.2.1
IPv4 address isn't 192.0.2.1 (don't use != for this!)	!(ip.addr == 192.0.2.1)
IPv6 only	ipv6
IPv6 address 2001:db8::1	ipv6.addr == 2001:db8::1
TCP only	tcp
UDP only	udp
Non-DNS	!(udp.port == 53    tcp.port == 53)
TCP or UDP port is 80 (HTTP)	tcp.port == 80    udp.port == 80
HTTP	http
No ARP and no DNS	not arp and !(udp.port == 53)
Non-HTTP and non-SMTP to/from 192.0.2.1	ip.addr == 192.0.2.1 and tcp.port not in {80, 25}

## Wireshark · Protocol Hierarchy Statistics · Wi-Fi Protocol Percent Packets Packets Percent Bytes Bytes Bits/s End Packets End Bytes End Bits/s ✓ Frame 100.0 492 100.0 194034 4243 0 0 0 100.0 492 6888 150 0 0 0 ✓ Ethernet 3.5 ✓ Internet Protocol Version 4 100.0 492 5.1 9840 215 0 0 0 91.1 Transmission Control Protocol 100.0 492 176688 3864 312 112764 2466 Transport Layer Security 35.4 174 75.7 146859 3211 174 146859 3211 6 1.2 0.0 0

## Wireshark · Endpoints · Wi-Fi

Ethernet · 651	IPv4 · 629	IP:	v6 · 512	TCP • 36	UDP · 7871	
Address	Packets	Bytes	Tx Packets	Tx Bytes	Rx Packets	Rx Bytes
00:01:6c:96:d6:92	57	3603	57	3603	0	
00:14:5e:45:f9:31	24	2379	24	2379	0	
00:15:5d:0f:3f:01	237	14 k	237	14 k	0	
00:15:5d:0f:3f:0a	4	423	4	423	0	
00:15:5d:13:01:05	2	120	2	120	0	
00:15:5d:13:01:0a	5	483	5	483	0	
00:15:5d:1f:ce:00	14	1023	14	1023	0	
00:15:5d:1f:ce:01	1,805	108 k	1,805	108 k	0	
00:15:5d:1f:ce:03	13	988	13	988	0	
00:15:5d:5f:3f:01	564	34 k	564	34 k	0	
00:15:5d:5f:3f:05	491	29 k	491	29 k	0	
00:15:5d:f0:b8:01	2	303	2	303	0	
00:15:5d:f0:b8:02	105	7745	105	7745	0	
00:15:5d:f0:b8:05	1	60	1	60	0	
00:17:7c:5b:1b:5d	622	181 k	622	181 k	0	
00:18:fe:1e:54:e0	1	60	1	60	0	
00:18:fe:5b:31:80	1	60	1	60	0	
00:1c:2e:47:b4:20	1	60	1	60	0	
00:1d:92:3b:a3:aa	39	5060	39	5060	0	
00:1f:d0:44:d3:11	2,551	155 k	2,551	155 k	0	
00:1f:d0:be:a4:60	2	120	2	120	0	
00:21:5e:26:97:04	1,583	95 k	1,571	94 k	12	
00:21:5e:26:97:06	266	16 k	266	16 k	0	
00:45:e2:70:84:bf	18	3592	18	3592	0	



Topic / Item	Count Av	erage Min	Val Max Va	al Rate (ms)	Percent	Burst Rate	Burst Start
✓ All Addresses	62356			0.0869	100%	0.2400	0.937
ff02::1	6			0.0000	0.01%	0.0100	93.153
8.8.8.8	47			0.0001	0.08%	0.2600	90.660
51.116.253.170	22			0.0000	0.04%	0.0600	16.544
40.79.189.58	27			0.0000	0.04%	0.0900	610.862
255.255.255.255	2629			0.0037	4.22%	0.1000	1.382
239.255.255.253	36			0.0001	0.06%	0.0100	17.769
239.255.255.251	91			0.0001	0.15%	0.0200	717.001
239.255.255.250	16920			0.0236	27.13%	0.1700	714.576
239.255.102.18	111			0.0002	0.18%	0.0200	17.792
239.192.152.143	129			0.0002	0.21%	0.0300	138.795
239.0.208.0	151			0.0002	0.24%	0.0200	57.355
232.44.44.233	91			0.0001	0.15%	0.0200	716.643
224.77.77.77	104			0.0001	0.17%	0.0200	72.231
224.7.7.7	119			0.0002	0.19%	0.0200	716.668
224.2.2.2	63			0.0001	0.10%	0.0200	711.059
224.0.1.60	60			0.0001	0.10%	0.0200	714.798
224.0.1.187	118			0.0002	0.19%	0.0200	138.773
224.0.1.129	61			0.0001	0.10%	0.0200	712.800
224.0.0.9	21			0.0000	0.03%	0.0100	18.026
224.0.0.253	60			0.0001	0.10%	0.0200	716.732

## Wireshark · Destinations and Ports · Wi-Fi Topic / Item Count Average | Min Val | Max Val | Rate (ms) | Percent | Burst Rate **Burst Start** Destinations and Ports 65733 14.1455 100% 0.1800 760.884 0.01% ff02::1 0.0013 0.0100 93.153 ✓ UDP 6 0.0013 100.00% 0.0100 93.153 6 100.00% 0.0100 3544 0.0013 93.153 8.8.8.8 24 0.0052 0.04% 0.1200 90.663 ✓ UDP 10 0.0022 41.67% 0.0800 90.632 443 10 0.0022 100.00% 0.0800 90.632 ✓ TCP 14 0.0030 58.33% 0.0400 90.640 443 14 0.0030 100.00% 0.0400 90.640 12 0.0026 0.02% 0.0200 51.116.253.170 16.422 ✓ TCP 12 0.0026 100.00% 0.0200 16.422 12 100.00% 0.0200 443 0.0026 16.422 40.79.189.58 14 0.02% 0.0030 0.0300 610.887 ✓ TCP 14 0.0030 100.00% 0.0300 610.887 443 14 0.0030 100.00% 0.0300 610.887 255.255.255.255 2734 0.5883 4.16% 0.0600 759.338 UDP 2734 0.5883 100.00% 0.0600 759,338 151 5.52% 796 0.0325 0.0300 396,229 13.42% 67 367 0.0790 0.0300 143.621 486 5050 0.1046 17.78% 0.6000 703.303 3956 748 0.1610 27.36% 0.0200 763.077 3490 139 0.0299 5.08% 0.0200 216.622 3289 4 0.0009 0.15% 0.0200 1.417 22222 8 0.0017 0.29% 0.0400 1.417 1947 81 0.0174 2.96% 0.0200 762.048 17500 243 0.0523 8.89% 0.1200 759.338 161 44 0.0095 1.61% 0.0200 6.799 137 295 10.79% 0.0200 758.838 0.0635 1053 163 0.0351 5.96% 0.0300 396,229 10004 5 0.0011 0.18% 0.0300 1.417

opic / ltem	Count	Average	Min Val	Max Val	Rate (ms)	Percent	Burst Rate	Burst Start		
IP Protocol Type	s 71400				0.0867	100%	0.6700	40.966		
UDP	59091				0.0718	82.76%	0.6400	40.966		
TCP	1457				0.0018	2.04%	0.3100	90.661		
NONE	10852				0.0132	15.20%	0.6000	17.730		

☑ Wireshark · Source and Destination Addresses · Wi-Fi										
Topic / Item	Count	Average	Min Val	Max Val	Rate (ms)	Percent	Burst Rate	Burst Start		
➤ Source IPv4 Addresses	75759				0.0873	100%	0.6600	865.022		
8.8.8.8	23				0.0000	0.03%	0.1400	90.660		
51.116.253.170	10				0.0000	0.01%	0.0400	16.544		
40.79.189.58	13				0.0000	0.02%	0.0600	610.862		
216.58.203.10	30				0.0000	0.04%	0.1000	640.842		
216.58.196.78	9				0.0000	0.01%	0.0600	90.778		
216.58.196.67	30				0.0000	0.04%	0.0900	592.103		
216.58.196.66	31				0.0000	0.04%	0.1300	377.358		
216.239.34.181	25				0.0000	0.03%	0.1000	506.995		
2001:0:2851:fcb0:2892:2893:8a01:45e2	4				0.0000	0.01%	0.0100	93.153		
2001:0:2851:fcb0:1ca6:186a:8a01:45e2	4				0.0000	0.01%	0.0100	130.439		
20.44.229.112	129				0.0001	0.17%	0.0700	412.760		
20.212.96.199	9				0.0000	0.01%	0.0500	114.176		
20.198.119.84	1				0.0000	0.00%	0.0100	428.231		
	75750				0.0073	4000/	0.5500	065.000		
✓ Destination IPv4 Addresses	75759				0.0873	100%		865.022		
ff02::1	8				0.0000	0.01%		93.153		
8.8.8.8	24				0.0000	0.03%		90.663		
51.116.253.170	12				0.0000	0.02%	0.0200	16.422		
49.44.59.36	2				0.0000	0.00%	0.0100	833.203		
40.79.189.58	14				0.0000	0.02%	0.0300	610.887		
255.255.255.255	3118				0.0036	4.12%	0.0200	0.000		
239.255.255.253	51				0.0001	0.07%	0.0200	867.294		
239.255.255.251	111				0.0001	0.15%	0.0200	865.032		

0.0236 27.01% 0.1100

863.623

20462

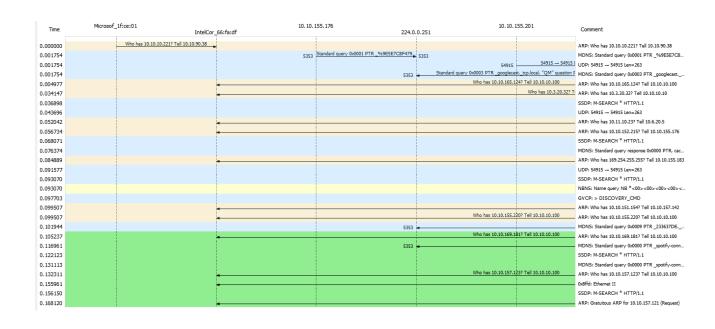
239.255.255.250

1											
-											
	Top	pic / Item	Count	Average	Min Val	Max Val	Rate (ms)	Percent	Burst Rate	Burst Start	
	~	Total Packets 2	20				0.0000	100%	0.0200	16.240	
		✓ rcode 2	20				0.0000	100.00%	0.0200	16.240	
		No error 2	20				0.0000	100.00%	0.0200	16.240	
		∨ opcodes 2	20				0.0000	100.00%	0.0200	16.240	
		Standard query 2	20				0.0000	100.00%	0.0200	16.240	
		✓ Query/Response 2	20				0.0000	100.00%	0.0200	16.240	
		Response 1	10				0.0000	50.00%	0.0100	16.249	
		Query 1	10				0.0000	50.00%	0.0100	16.240	
		✓ Query Type 2	20				0.0000	100.00%	0.0200	16.240	
		A (Host Address)	20				0.0000	100.00%	0.0200	16.240	
		✓ Class	20				0.0000	100.00%	0.0200	16.240	
		IN 2	20				0.0000	100.00%	0.0200	16.240	
	~	Service Stats	0				0.0000	100%	-	-	
		request-response time (msec)	10	13.49	4.362000	38.551998	0.0000		0.0100	16.249	
		no. of unsolicited responses (	0				0.0000		-	-	
		no. of retransmissions (	0				0.0000		-	-	
	~	Response Stats 0	0				0.0000	100%	-	-	
		no. of questions	20	1.00	1	1	0.0000		0.0200	16.249	
		no. of authorities 2	20	0.00	0	0	0.0000		0.0200	16.249	
		no. of answers	20	3.40	2	12	0.0000		0.0200	16.249	
		no. of additionals	20	0.00	0	0	0.0000		0.0200	16.249	
	~	Query Stats (	0				0.0000	100%	-	-	
		Qname Len 1	10	23.90	10	34	0.0000		0.0100	16.240	
		✓ Label Stats  (1)	0				0.0000		-	-	
		4th Level or more	3				0.0000		0.0100	16.240	
		3rd Level 6	6				0.0000		0.0100	88.219	
		2nd Level	1				0.0000		0.0100	90.595	
		1st Level (	0				0.0000		-	-	

Payload size

20

90.85 28



312

0.0000

100%

0.0200

16.240