

Captura de Traceroute en Wireshark

a campusgrado.fi.uba.ar con TCP

```
cdimatteo@Carolinas-MacBook-Air ~ % traceroute -d -P tcp campusgrado.fi.uba.ar
traceroute to campusgrado.fi.uba.ar (181.209.30.57), 64 hops max, 64 byte packets
 1  * * *
 2  * * *
 3  * * *
 4  * * *
 5  * * *
```

Wireshark interface showing a packet capture on the Wi-Fi: en0 interface. The filter is set to `icmp or icmpv6 or ip.dst == 181.209.30.57`. The packet list shows a series of ICMP Echo (ping) requests and responses, as well as TCP SYN packets. The packet details pane shows the structure of an ICMP Echo request, including the destination address and the ICMPv6 option.

Packet List:

No.	Time	Source	Destination	Protocol	Length	Info
1842	4.887389	192.168.0.205	181.209.30.57	TCP	78	36639 → 33435 [SYN] Seq=0 Win=0 Len=24
1843	4.901347	192.168.0.1	192.168.0.205	ICMP	106	Time-to-live exceeded (Time to live exceeded in transit)
3380	9.886963	192.168.0.205	181.209.30.57	TCP	78	36639 → 33436 [SYN] Seq=0 Win=0 Len=24
3381	9.896817	192.168.0.1	192.168.0.205	ICMP	106	Time-to-live exceeded (Time to live exceeded in transit)
4896	14.891980	192.168.0.205	181.209.30.57	TCP	78	36639 → 33437 [SYN] Seq=0 Win=0 Len=24
4897	14.985259	192.168.0.1	192.168.0.205	ICMP	106	Time-to-live exceeded (Time to live exceeded in transit)
6386	19.897147	192.168.0.205	181.209.30.57	TCP	78	36639 → 33438 [SYN] Seq=0 Win=0 Len=24
7889	24.901868	192.168.0.205	181.209.30.57	TCP	78	36639 → 33439 [SYN] Seq=0 Win=0 Len=24
7918	29.902776	192.168.0.205	181.209.30.57	TCP	78	36639 → 33440 [SYN] Seq=0 Win=0 Len=24
9791	34.907899	192.168.0.205	181.209.30.57	TCP	78	36639 → 33441 [SYN] Seq=0 Win=0 Len=24
11164	39.910708	192.168.0.205	181.209.30.57	TCP	78	36639 → 33442 [SYN] Seq=0 Win=0 Len=24
12717	44.615655	fe80::cf7:629...	fe80::107a:2663:ea2:db7d	ICMPv6	86	Neighbor Solicitation for fe80::107a:2663:ea2:db7d from 1c:57:dc:2e:3f:ea
12718	44.615738	fe80::cf7:629...	fe80::cb7:74f0:732b:b9e0	ICMPv6	86	Neighbor Solicitation for fe80::cb7:74f0:732b:b9e0 from 1c:57:dc:2e:3f:ea
12729	44.915846	192.168.0.205	181.209.30.57	TCP	78	36639 → 33443 [SYN] Seq=0 Win=0 Len=24
12795	45.626420	fe80::cf7:629...	fe80::107a:2663:ea2:db7d	ICMPv6	86	Neighbor Solicitation for fe80::107a:2663:ea2:db7d from 1c:57:dc:2e:3f:ea
12796	45.626496	fe80::cf7:629...	fe80::cb7:74f0:732b:b9e0	ICMPv6	86	Neighbor Solicitation for fe80::cb7:74f0:732b:b9e0 from 1c:57:dc:2e:3f:ea
12797	45.932724	fe80::cb7:74f...	fe80::cf7:629...	ICMPv6	78	Neighbor Advertisement fe80::cb7:74f0:732b:b9e0 (sol)
12805	46.236076	fe80::107a:26...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
12825	46.636987	fe80::cf7:629...	fe80::107a:2663:ea2:db7d	ICMPv6	86	Neighbor Solicitation for fe80::107a:2663:ea2:db7d from 1c:57:dc:2e:3f:ea
12826	46.643861	fe80::107a:26...	fe80::cf7:629...	ICMPv6	78	Neighbor Advertisement fe80::107a:2663:ea2:db7d (sol)
12836	46.747453	fe80::cb7:74f...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
12921	49.718831	fe80::cb7:74f...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
12922	49.918552	192.168.0.205	181.209.30.57	TCP	78	36639 → 33444 [SYN] Seq=0 Win=0 Len=24
12925	50.126753	fe80::107a:26...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
12941	50.967340	fe80::cb7:74f...	fe80::cf7:629...	ICMPv6	86	Neighbor Solicitation for fe80::cf7:629f:da35:19e2 from 42:cf:15:22:90:85
12942	50.967539	fe80::cf7:629...	fe80::cb7:74f...	ICMPv6	78	Neighbor Advertisement fe80::cf7:629f:da35:19e2 (sol)
13759	51.701409	fe80::107a:26...	fe80::cf7:629...	ICMPv6	86	Neighbor Solicitation for fe80::cf7:629f:da35:19e2 from 6e:a4:0b:ab:29:6b
13760	51.701582	fe80::cf7:629...	fe80::107a:2663:ea2:db7d	ICMPv6	78	Neighbor Advertisement fe80::cf7:629f:da35:19e2 (sol)
14011	54.920347	192.168.0.205	181.209.30.57	TCP	78	36639 → 33445 [SYN] Seq=0 Win=0 Len=24
15512	59.925440	192.168.0.205	181.209.30.57	TCP	78	36639 → 33446 [SYN] Seq=0 Win=0 Len=24
17507	64.930571	192.168.0.205	181.209.30.57	TCP	78	36639 → 33447 [SYN] Seq=0 Win=0 Len=24
19068	69.931272	192.168.0.205	181.209.30.57	TCP	78	36639 → 33448 [SYN] Seq=0 Win=0 Len=24
20662	74.936416	192.168.0.205	181.209.30.57	TCP	78	36639 → 33449 [SYN] Seq=0 Win=0 Len=24
22283	79.940882	192.168.0.205	181.209.30.57	TCP	78	36639 → 33450 [SYN] Seq=0 Win=0 Len=24
22288	80.337936	181.96.113.234	192.168.0.205	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)

Packet Details:

Ethernet II, Src: Apple_2e:3f:ea (1c:57:dc:2e:3f:ea), Dst: 6e:a4:0b:ab:29:6b (6e:a4:0b:ab:29:6b)

Internet Protocol Version 6, Src: fe80::cf7:629f:da35:19e2, Dst: fe80::107a:2663:ea2:db7d

Internet Control Message Protocol v6

Type: Neighbor Solicitation (135)

Code: 0

Checksum: 0xf806 [correct]

[Checksum Status: Good]

Reserved: 00000000

Target Address: fe80::107a:2663:ea2:db7d

ICMPv6 Option (Source link-layer address : 1c:57:dc:2e:3f:ea)

Type: Source Link-layer address (1)

Length: 1 (8 bytes)

Link-layer address: Apple_2e:3f:ea (1c:57:dc:2e:3f:ea)

Packet Bytes: 0000 6e a4 0b ab 29 6b 1c 57 dc 2e 3f ea 86 dd 60 00 n...k.W...?...
0010 00 00 00 20 3a ff fe 80 00 00 00 00 00 0c f7 ...:.....
0020 62 9f da 35 19 e2 fe 80 00 00 00 00 00 10 7a b...5.....z
0030 26 63 e1 a2 db 7d 87 00 f8 06 00 00 00 00 fe 80 &c...}.....
0040 00 00 00 00 00 00 10 7a 26 63 e1 a2 db 7d 01 01z &c...<...
0050 1c 57 dc 2e 3f ea .W...?

a campusgrado.fi.uba.ar con UDP

```
cdimatteo@Carolin-MacBook-Air ~ % traceroute -d -P udp campusgrado.fi.uba.ar
traceroute to campusgrado.fi.uba.ar (181.209.30.57), 64 hops max, 52 byte packets
 1  192.168.0.1 (192.168.0.1)  13.687 ms  12.009 ms  10.330 ms
 2  * * *
 3  * * *
 4  * * *
 5  * * *
 6  * * host234.181-96-113.telecom.net.ar (181.96.113.234)  23.336 ms
 7  200.51.232.4 (200.51.232.4)  25.162 ms  48.336 ms  20.303 ms
 8  * * *
```

Wireshark interface showing a packet capture. The packet list pane displays a series of ICMPv6 Multicast Listener Report messages and UDP packets. The packet details pane shows the structure of an ICMPv6 Multicast Listener Report message, including the multicast address field.

Packet List:

No.	Time	Source	Destination	Protocol	Length	Info
23	0.961332	fe80::cb7:74f...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
1180	3.933430	fe80::cb7:74f...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
1183	4.041823	192.168.0.205	181.209.30.57	UDP	66	36683 → 33435 Len=24
1184	4.054766	192.168.0.1	192.168.0.205	ICMP	94	Time-to-live exceeded (Time to live exceeded in transit)
1187	4.077816	192.168.0.205	181.209.30.57	UDP	66	36683 → 33436 Len=24
1188	4.080688	192.168.0.1	192.168.0.205	ICMP	94	Time-to-live exceeded (Time to live exceeded in transit)
1189	4.089839	192.168.0.205	181.209.30.57	UDP	66	36683 → 33437 Len=24
1110	4.099980	192.168.0.1	192.168.0.205	ICMP	94	Time-to-live exceeded (Time to live exceeded in transit)
1111	4.100200	192.168.0.205	181.209.30.57	UDP	66	36683 → 33438 Len=24
1197	9.105453	192.168.0.205	181.209.30.57	UDP	66	36683 → 33439 Len=24
1348	12.226361	fe80::107a:26...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
3058	14.110525	192.168.0.205	181.209.30.57	UDP	66	36683 → 33440 Len=24
3111	15.912660	fe80::107a:26...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
3186	19.114959	192.168.0.205	181.209.30.57	UDP	66	36683 → 33441 Len=24
4349	24.120020	192.168.0.205	181.209.30.57	UDP	66	36683 → 33442 Len=24
4516	29.125897	192.168.0.205	181.209.30.57	UDP	66	36683 → 33443 Len=24
6211	34.127238	192.168.0.205	181.209.30.57	UDP	66	36683 → 33444 Len=24
6288	39.129292	192.168.0.205	181.209.30.57	UDP	66	36683 → 33445 Len=24
6323	44.130039	192.168.0.205	181.209.30.57	UDP	66	36683 → 33446 Len=24
8234	49.133859	192.168.0.205	181.209.30.57	UDP	66	36683 → 33447 Len=24
8322	54.137680	192.168.0.205	181.209.30.57	UDP	66	36683 → 33448 Len=24
9527	59.142757	192.168.0.205	181.209.30.57	UDP	66	36683 → 33449 Len=24
11894	64.147296	192.168.0.205	181.209.30.57	UDP	66	36683 → 33450 Len=24
11107	69.148490	192.168.0.205	181.209.30.57	UDP	66	36683 → 33451 Len=24
12341	74.152283	192.168.0.205	181.209.30.57	UDP	66	36683 → 33452 Len=24
12342	74.175323	181.96.113.234	192.168.0.205	ICMP	110	Time-to-live exceeded (Time to live exceeded in transit)
12345	74.197675	192.168.0.205	181.209.30.57	UDP	66	36683 → 33453 Len=24
12346	74.222502	200.51.232.4	192.168.0.205	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)
12351	74.273833	192.168.0.205	181.209.30.57	UDP	66	36683 → 33454 Len=24
12352	74.321058	200.51.232.4	192.168.0.205	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)
12353	74.321414	192.168.0.205	181.209.30.57	UDP	66	36683 → 33455 Len=24
12358	74.341464	200.51.232.4	192.168.0.205	ICMP	70	Time-to-live exceeded (Time to live exceeded in transit)
12359	74.341949	192.168.0.205	181.209.30.57	UDP	66	36683 → 33456 Len=24
14867	79.344564	192.168.0.205	181.209.30.57	UDP	66	36683 → 33457 Len=24
16011	84.349715	192.168.0.205	181.209.30.57	UDP	66	36683 → 33458 Len=24

Packet Details:

Internet Protocol Version 6, Src: fe80::cb7:74f:732b:b9e0, Dst: ff02::16

Internet Control Message Protocol v6

Type: Multicast Listener Report Message v2 (143)

Code: 0

Checksum: 0xc05c [correct]

[Checksum Status: Good]

Reserved: 0000

Number of Multicast Address Records: 1

Multicast Address Record Changed to exclude: ff02::fb

Record Type: Changed to exclude (4)

Aux Data Len: 0

Number of Sources: 0

Multicast Address: ff02::fb

The Multicast Address field contains the multicast address to which this Multicast Address Record pertains (icmpv6.mldr.mar.multicast_address), 16 bytes

Packets: 39775 - Displayed: 43 (0.1%)

Profile: Default