- Using UDP port 67
1. Ipconfig /all

```
Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Realtek Gaming GbE Family Controller
   Physical Address. . . . . . . . . : B4-2E-99-96-E6-F2
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   Link-local IPv6 Address . . . . . : fe80::f9d9:ae3c:2a80:8dfa%20(Preferred)
   IPv4 Address. . . . . . . . . . . : 192.168.1.222(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Lease Obtained. . . . . . . . . . : 11 April 2021 02:43:02 PM
   Lease Expires . . . . . . . . . . : 12 April 2021 02:43:01 PM
   Default Gateway . . . . . . . . . : 192.168.1.1
   DHCP Server . . . . . . . . . . . : 192.168.1.1
   DHCPv6 IAID . . . . . . . . . . . : 397684377
   DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-25-79-24-12-B4-2E-99-96-E6-F2
   DNS Servers . . . . . . . . . . . : 192.168.1.1
   NetBIOS over Tcpip. . . . . . . . : Enabled
```

We need ipconfig /all to get all the information that changes between initial conditions and the renewal process.

IP: 192.168.1.222

MAC: B4:2E:99:96:E6:F2

2. Ipconfig /release

```
Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Realtek Gaming GbE Family Controller
   Physical Address. . . . . . . . . : B4-2E-99-96-E6-F2
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   Link-local IPv6 Address . . . . . : fe80::f9d9:ae3c:2a80:8dfa%20(Preferred)
   Autoconfiguration IPv4 Address. . : 169.254.141.250(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.0.0
   Default Gateway . . . . . . . . . :
   DHCPv6 IAID . . . . . . . . . . . : 397684377
   DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-25-79-24-12-B4-2E-99-96-E6-F2
   DNS Servers . . . . . . . . . . . : fec0:0:0:ffff::1%1
                                       fec0:0:0:ffff::2%1
                                       fec0:0:0:ffff::3%1
   NetBIOS over Tcpip. . . . . . . . : Enabled
```

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.1.222	192.168.1.1	DHCP	342	DHCP Release - Transaction ID 0x2b915414

3. Modifications:

No more normal IPv4 Address, only an Autoconfiguration IPv4 Address.

Lease is non-existent for the time being.

There's no Default Gateway and DHCP Server.

MAC Address the same as before.

4. Ipconfig /renew

```
Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . :
    Description . . . . . . . . . . . : Realtek Gaming GbE Family Controller
    Physical Address. . . . . . . . . : B4-2E-99-96-E6-F2
    DHCP Enabled. . . . . . . . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::f9d9:ae3c:2a80:8dfa%20(Preferred)
    IPv4 Address. . . . . . . . . . . : 192.168.1.222(Preferred)
    Subnet Mask . . . . . . . . . . . : 255.255.255.0
    Lease Obtained. . . . . . . . . . : 11 April 2021 03:12:18 PM
    Lease Expires . . . . . . . . . . : 12 April 2021 03:12:17 PM
    Default Gateway . . . . . . . . . : 192.168.1.1
    DHCP Server . . . . . . . . . . . : 192.168.1.1
    DHCPv6 IAID . . . . . . . . . . . : 397684377
    DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-25-79-24-12-B4-2E-99-96-E6-F2
    DNS Servers . . . . . . . . . . . : 192.168.1.1
    NetBIOS over Tcpip. . . . . . . . : Enabled
```

2 98.125535	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xe8c77740
3 101.184775	192.168.1.1	192.168.1.222	DHCP	342	DHCP Offer - Transaction ID 0xe8c77740
4 101.185809	0.0.0.0	255.255.255.255	DHCP	370	DHCP Request - Transaction ID 0xe8c77740
5 101.187463	192.168.1.1	192.168.1.222	DHCP	357	DHCP ACK - Transaction ID 0xe8c77740

5. Modifications:

Got the same IPv4 address as before.

Acquired a new lease at the time of renewal.

MAC address the same throughout the process, since it's a physical address.

6. Trace file messages: eth.src == B4:2E:99:96:E6:F2 (My MAC Address)

eth.src == b4:2e:99:96:e6:f2

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.1.222	192.168.1.1	DHCP	342	DHCP Release - Transaction ID 0xfc8c546a
2	8.942306	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xa4c8c33f
4	11.946878	0.0.0.0	255.255.255.255	DHCP	370	DHCP Request - Transaction ID 0xa4c8c33f

7. Time to get IP address: Discover Time – ACK Time

Discover Time: 98.125535s

ACK Time: 101.187463s

Time: 3.061928s

8. Longest Loading Time Element: Ads…

23. googleads.g.doubleclick.net – ads (time: 643ms)

9. DNS Identification Time:

Request Start: 0.320

DNS Lookup: 114 ms

Initial Connection: 13

114ms

wait | dns | connect | ssl | html | js | css | image | flash | font | video | other | JS Execution

Step_1

| | 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 |

1. tromf.ro - / 466 ms
2. tromf.ro - header.css 52 ms
3. tromf.ro - navigator.css 70 ms
4. tromf.ro - index.css 127 ms
5. tromf.ro - footer.css 130 ms
6. tromf.ro - common.js 214 ms
7. pagead2.google... - adsbygoogle.js 266 ms
8. tromf.ro - g-play.png 57 ms
9. tromf.ro - preview.jpg 182 ms
10. tromf.ro - pwa_logo.png 85 ms
11. tromf.ro - pwa_logo.png 192 ms
12. tromf.ro - pwa_logo.png 312 ms
13. tromf.ro - pwa_logo.png 122 ms
14. tromf.ro - pwa_logo.png 95 ms
15. tromf.ro - pwa_logo.png 217 ms
16. www.facebook.com - like.php 376 ms
17. tromf.ro - pwa_logo.png 55 ms
18. tromf.ro - asi.jpg 114 ms
19. pagead2.google...ith_ama_fy2019.js 256 ms
20. googleads.g.do...- zrt_lookup.html 227 ms
21. www.facebook.com - OqOE21UvWe3.png 70 ms
22. www.facebook.com - pq5PmZshFQQ.js 277 ms
23. googleads.g.doubleclick.net - ads 643 ms
24. www.facebook.c...alry_endpoint.php 66 ms
25. partner.google...s.com - cookie.js 285 ms
26. adservice.goog...e - integrator.js 269 ms
27. adservice.goog...m - integrator.js 292 ms
28. www.googletagservices.com - osd.js 316 ms
29. pagead2.google...library_fy2019.js 140 ms
30. googleads.g.doubleclick.net - ads 230 ms
31. googleads.g.doubleclick.net - ads 246 ms
32. adservice.goog...e - integrator.js 157 ms
33. adservice.goog...m - integrator.js 153 ms
34. googleads.g.do...- zrt_lookup.html 141 ms
35. fonts.googleapis.com - css2 231 ms
36. www.gstatic.com...grey600_24dp.png 220 ms
37. www.gstatic.com...grey600_24dp.png 40 ms
38. tpc.googlesynd...d_frame_fy2019.js 238 ms
39. fonts.googleapis.com - css 67 ms
40. tpc.googlesynd...bg_lite_fy2019.js 79 ms
41. tpc.googlesynd...tection_fy2019.js 62 ms
42. tpc.googlesynd...w_focus_fy2019.js 65 ms
43. tpc.googlesynd...esource_fy2019.js 80 ms
44. www.googletags...com - rx_lidar.js 161 ms
45. www.gstatic.com...4e1cbaa2e66c3.js 114 ms
46. googleads.g.doubleclick.net - s 84 ms
47. pagead2.google...gt7GQ059cBhhbM.js 49 ms
48. tromf.ro - ico.png 57 ms
49. pagead2.google...ation.com - sodar 89 ms
50. tromf.ro - manifest.json 184 ms
51. tpc.googlesynd...n.com - sodar2.js 50 ms
52. www.google.com - ui 222 ms (302)
53. tromf.ro - 144x144.png 63 ms
54. googleads.g.doubleclick.net - si 66 ms
55. tpc.googlesynd...com - runner.html 54 ms
56. pagead2.google...gt7GQ059cBhhbM.js 41 ms
57. pagead2.google...ion.com - gen_204 71 ms

| | 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 |

CPU Utilization

Bandwidth In (0 - 5,000 Kbps)

Browser Main Thread

Long Tasks