

DNS protocol

1) Sent over TCP

16	2.221217	192.168.1.7	192.168.1.1	DNS	84	Standard
18	2.221461	192.168.1.7	192.168.1.1	DNS	84	Standard
30	2.617665	192.168.1.1	192.168.1.7	DNS	117	Standard
31	2.617665	192.168.1.1	192.168.1.7	DNS	158	Standard
102	3.453899	192.168.1.7	192.168.1.1	DNS	90	Standard
104	3.454132	192.168.1.7	192.168.1.1	DNS	90	Standard
113	3.707816	192.168.1.1	192.168.1.7	DNS	123	Standard
114	3.707816	192.168.1.1	192.168.1.7	DNS	164	Standard
566	65.264737	192.168.1.7	163.121.128.134	DNS	99	Standard
568	65.264976	192.168.1.7	163.121.128.134	DNS	99	Standard
571	65.279191	163.121.128.134	192.168.1.7	DNS	117	Standard
576	65.279521	163.121.128.134	192.168.1.7	DNS	158	Standard
606	72.152741	192.168.1.7	163.121.128.134	DNS	80	Standard
607	72.174565	163.121.128.134	192.168.1.7	DNS	254	Standard
623	72.520698	192.168.1.7	163.121.128.134	DNS	92	Standard
625	72.549744	163.121.128.134	192.168.1.7	DNS	215	Standard
647	72.828953	192.168.1.7	163.121.128.134	DNS	86	Standard
648	72.840809	163.121.128.134	192.168.1.7	DNS	143	Standard
803	105.988610	192.168.1.7	163.121.128.134	DNS	87	Standard
804	106.004263	163.121.128.134	192.168.1.7	DNS	169	Standard
831	107.565337	192.168.1.7	163.121.128.134	DNS	83	Standard
832	107.595688	163.121.128.134	192.168.1.7	DNS	263	Standard
846	107.850812	192.168.1.7	163.121.128.134	DNS	74	Standard
847	107.879869	163.121.128.134	192.168.1.7	DNS	386	Standard

0100 = Version: 4
.... 0101 = Header Length: 20 bytes (5)
> Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
Total Length: 70
Identification: 0x2d81 (11649)
> 010. = Flags: 0x2, Don't fragment
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 128
Protocol: TCP (6)
Header Checksum: 0x0000 [validation disabled]
[Header checksum status: Unverified]
Source Address: 192.168.1.7
Destination Address: 192.168.1.1

Protocol (ip.proto), 1 byte

2) Source port : 56498 / destination port : 53

847	107.879869	163.121.128.134	192.168.1.7	DNS	386	Standard
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[Header checksum status: Unverified]
Source Address: 192.168.1.1
Destination Address: 192.168.1.7

Transmission Control Protocol, Src Port: 53, Dst Port: 56498, Seq: 2, Ack: 33, Len: 63

Source Port: 53
Destination Port: 56498
[Stream index: 2]
[Conversation completeness: Complete, WITH_DATA (31)]
[TCP Segment Len: 63]
Sequence Number: 2 (relative sequence number)
Sequence Number (raw): 2454006291
[Next Sequence Number: 65 (relative sequence number)]
Acknowledgment Number: 33 (relative ack number)

Transmission Control Protocol (tcp), 20 bytes

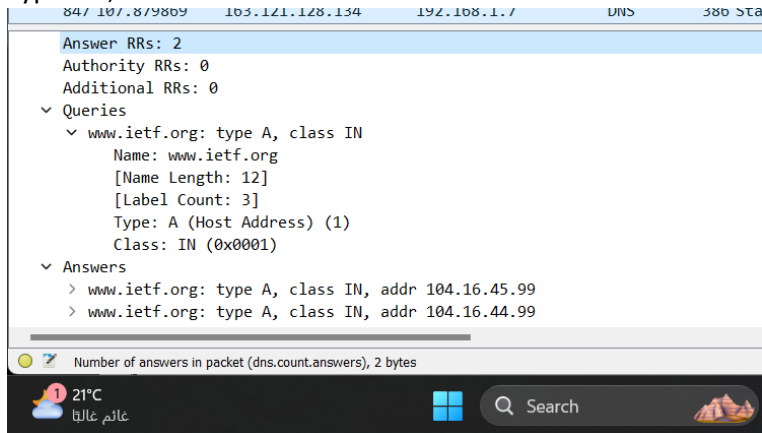
3) Sent to 192.168.1.7, an IP address of one of the local DNS servers

No.	Time	Source	Destination	Protocol	Length	Info
16	2.221217	192.168.1.7	192.168.1.1	DNS	84	Standard query 0x0f63 HTTPS www.ietf.org
18	2.221461	192.168.1.7	192.168.1.1	DNS	84	Standard query 0x905e A www.ietf.org
30	2.617665	192.168.1.1	192.168.1.7	DNS	117	Standard query response 0x905e A www.ietf.org A 104.16.4.
31	2.617665	192.168.1.1	192.168.1.7	DNS	158	Standard query response 0x0f63 HTTPS www.ietf.org HTTPS

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Connection-specific DNS Suffix . : 
Description . . . . . : Intel(R) Wireless-AC 9560 160MHz
Physical Address . . . . . : 38-5C-8D-9D-39-C9
DHCP Enabled. . . . . : Yes
Autonomous IPv6 Address . . . . . : fe80::568:233a:7191:1ba3::%{Interface}
IP Address . . . . . : 192.168.1.7 (Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained . . . . . : Friday, November 18, 2023 8:00:30 PM
Lease Expires . . . . . : Saturday, November 11, 2023 8:52:13 PM
Default Gateway . . . . . : 192.168.1.1
DHCP Server . . . . . : 192.168.1.1
DHCPv6 Iaid . . . . . : 12060600
DHCPv6 Client DUID . . . . . : 00-01-00-01-2a-00-18-20-20-26-07-09-c9
DNS Servers . . . . . : 192.168.1.254
                        192.168.1.1
                        192.168.1.1
NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter Bluetooth Network Connection:
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . : 
Description . . . . . : Bluetooth Device (Personal Area Network)
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4) Type : A , Answers : 2



5) 2 answers about the name of host , type of address , class , TTL, data length and IP address

