1. I searched for bazar.pk

```
C:\Users\Bilal>nslookup bazar.pk
Server:  UnKnown
Address:  fe80::1

Non-authoritative answer:
Name:    bazar.pk
Address:  174.138.184.18


C:\Users\Bilal>
```

   Their ip address is 174.138.184.18

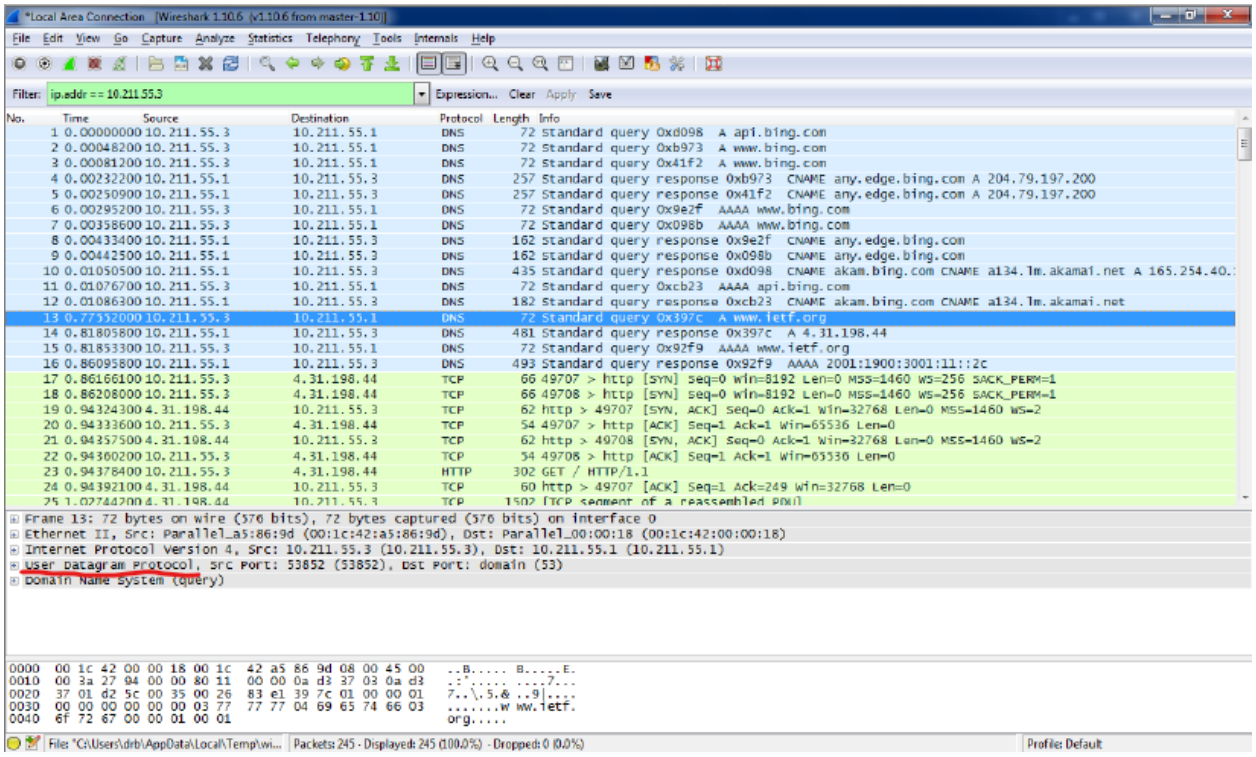
2. The authorative DNS for a university in Europe is

```
PS C:\WINDOWS\system32> nslookup -type=NS www.ed.ac.uk
Server:  UnKnown
Address:  fe80::1

ed.ac.uk
        primary name server = dns0.ed.ac.uk
        responsible mail addr = hostmaster.ed.ac.uk
        serial  = 2020146463
        refresh = 1800 (30 mins)
        retry   = 900 (15 mins)
        expire  = 1209600 (14 days)
        default TTL = 900 (15 mins)
PS C:\WINDOWS\system32> nslookup www.ed.ac.uk dns0.ed.ac.uk
Server:  is jcmb
Address:  129.215.200.7

DNS request timed out.
    timeout was 2 seconds.
Name:    www.ed.ac.uk
Address:  23.185.0.1

PS C:\WINDOWS\system32> nslookup www.ed.ac.uk dns0.ed.ac.uk
DNS request timed out.
    timeout was 2 seconds.
Server:  UnKnown
Address:  129.215.200.7

Name:    www.ed.ac.uk
Addresses:  2620:12a:8001::1
          2620:12a:8000::1
          23.185.0.1

PS C:\WINDOWS\system32> D
```

3.

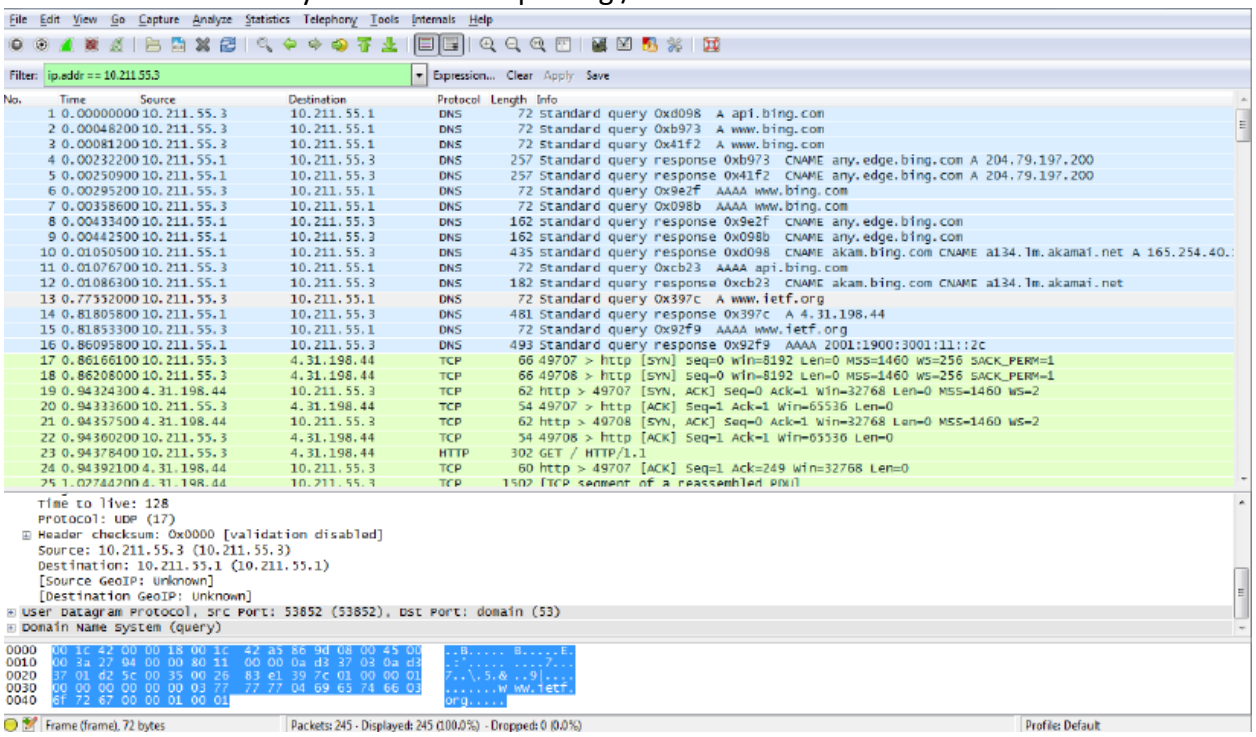
```
PS C:\WINDOWS\system32> nslookup  www.ed.ac.uk mail.yahoo.com
DNS request timed out.
    timeout was 2 seconds.
Server:  UnKnown
Address:  87.248.119.251

DNS request timed out.
    timeout was 2 seconds.
DNS request timed out.
    timeout was 2 seconds.
DNS request timed out.
    timeout was 2 seconds.
DNS request timed out.
    timeout was 2 seconds.
*** Request to UnKnown timed-out
PS C:\WINDOWS\system32>
```

4. Messages are sent via UDP Protocol

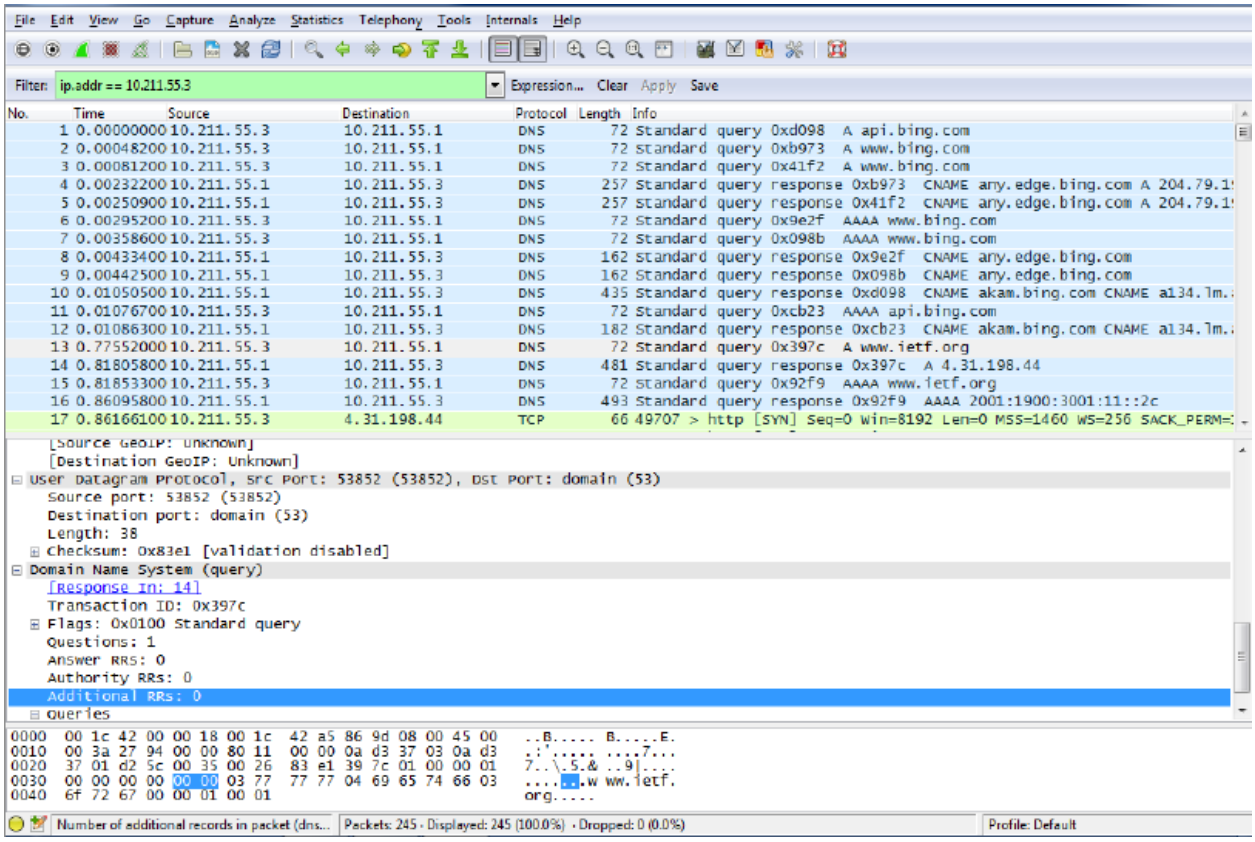


5. See screenshot. Source port: 53853. Dest port: 53.

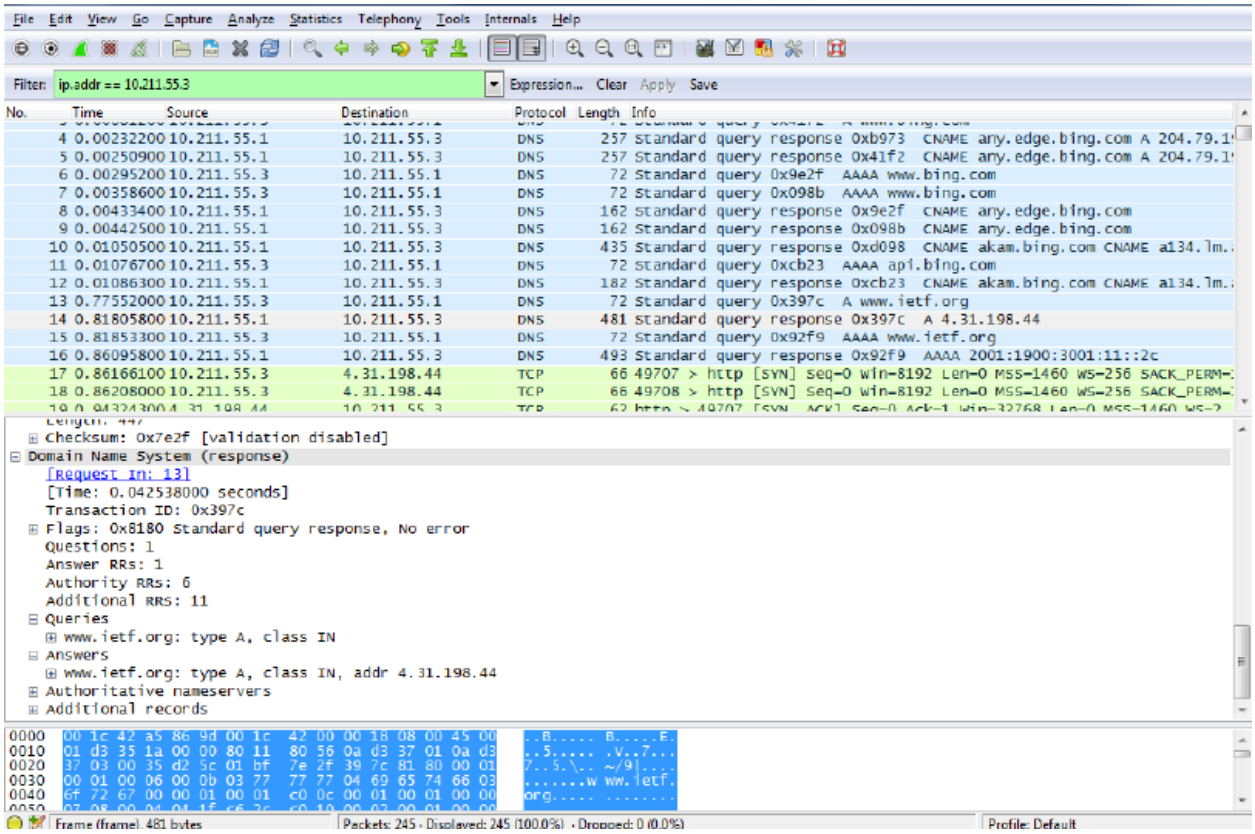
6. The screenshot shows that the DNS message was sent to 10.211.55.1. This matches the DNS server listed by the command ipconfig /all.



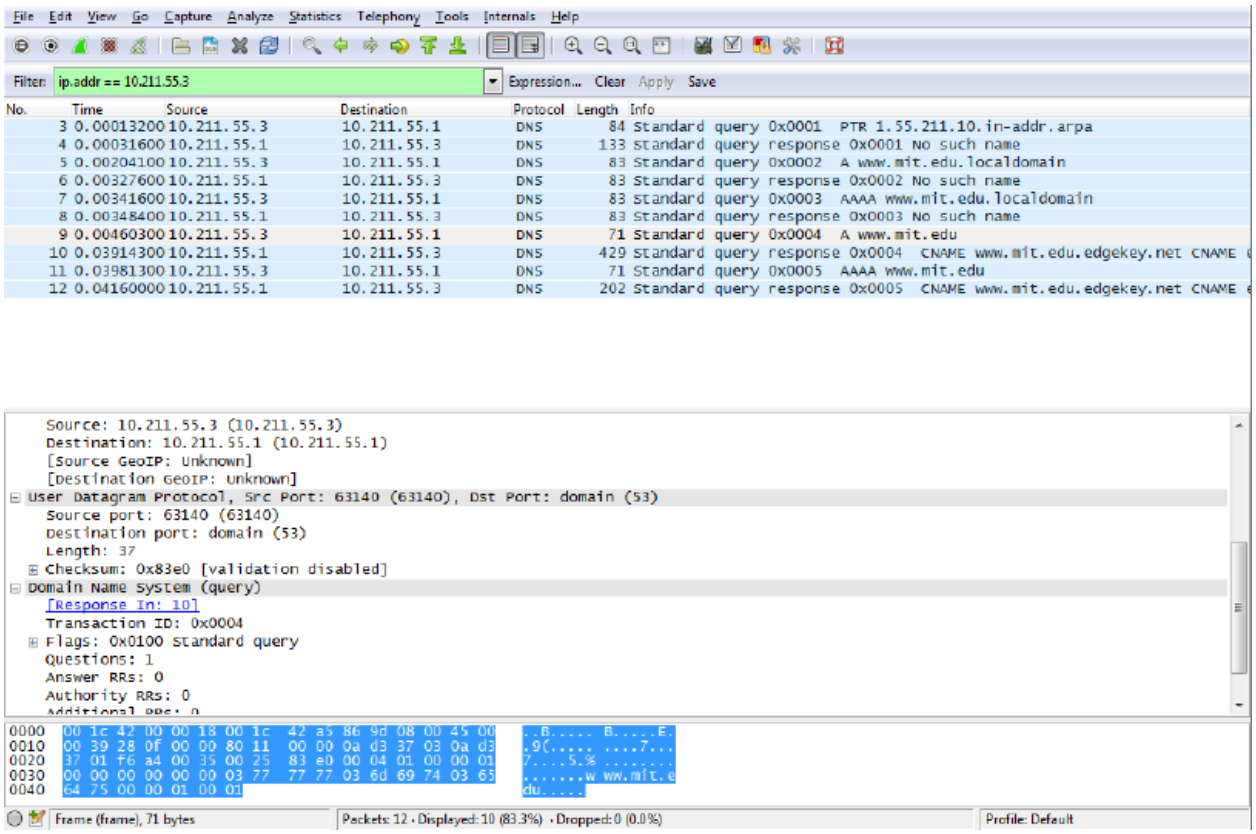
7. It is a “type A" query, which is for a standard host address resource record. No answers as shown in screenshot



8. One answer containing the IP address of www.ietf.org



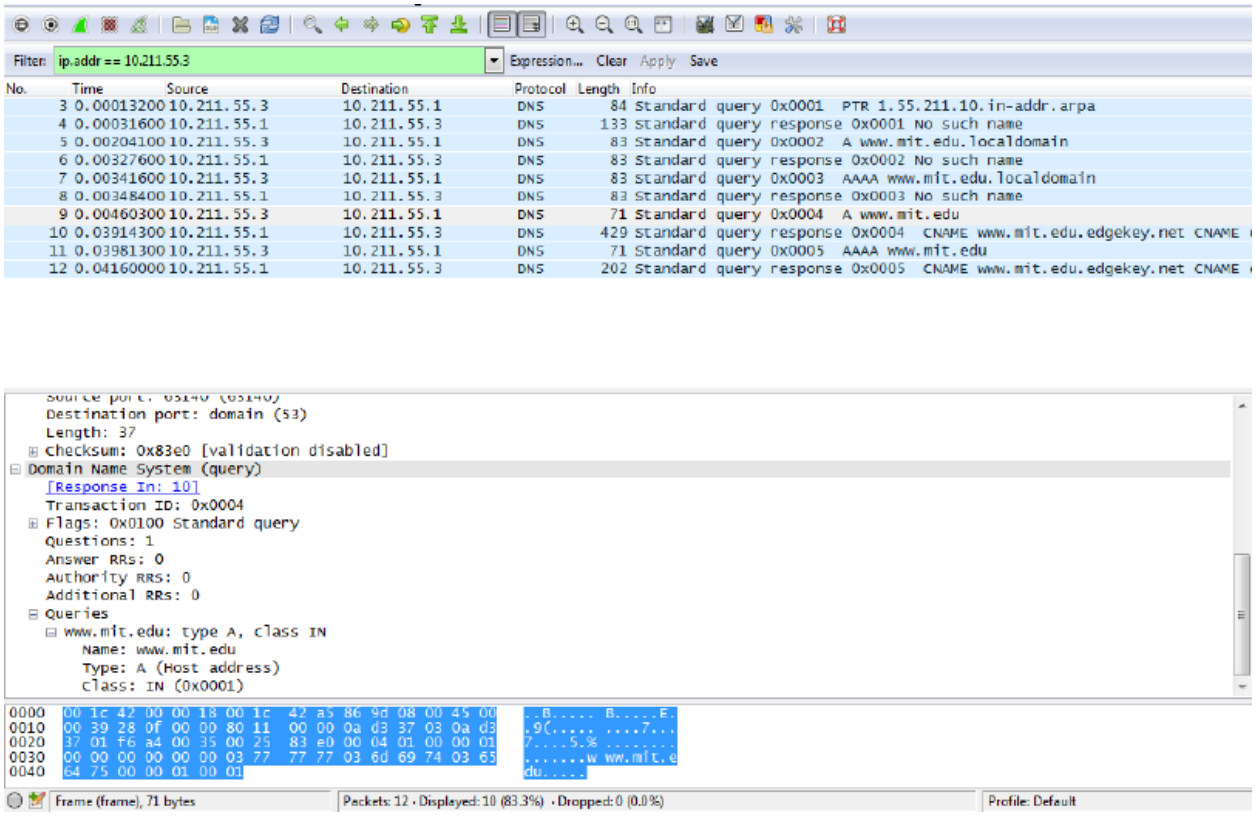
11.



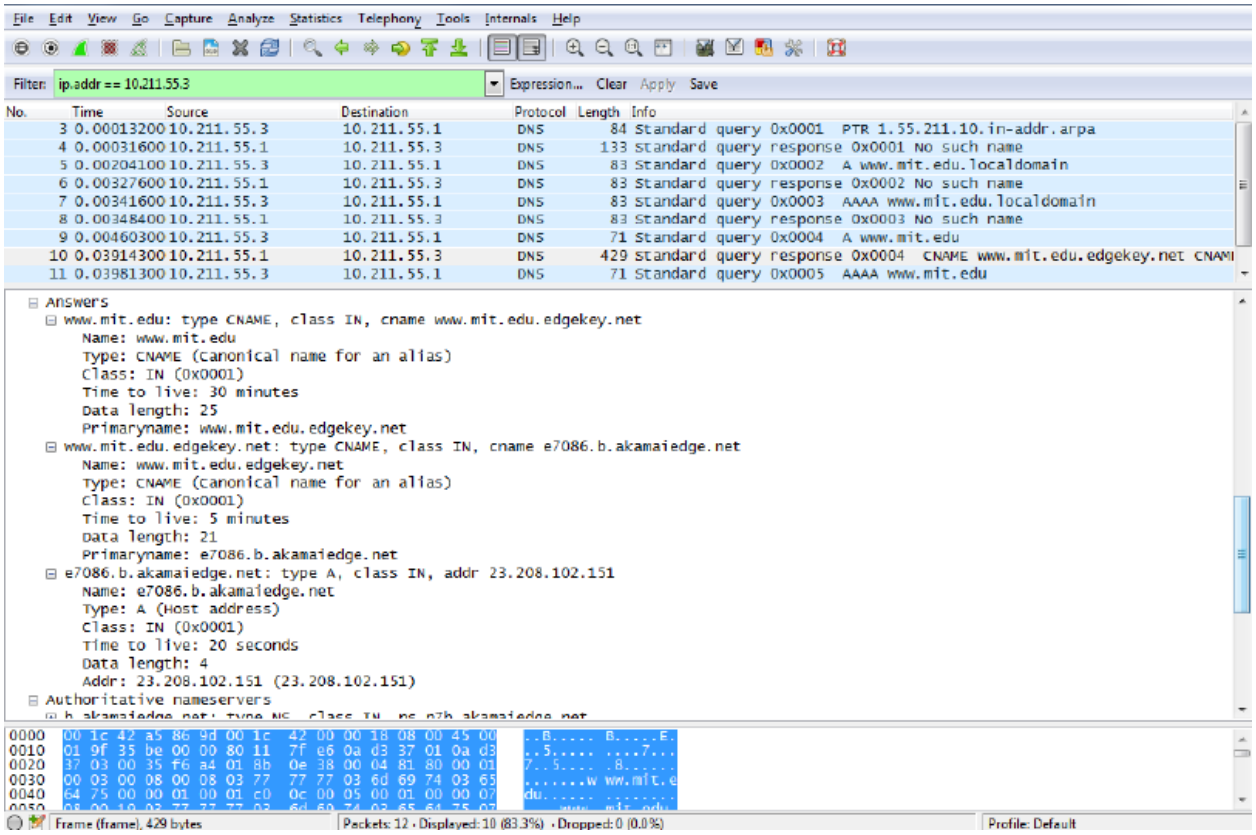
Source port: 63140. Dest port: 53

12. DNS Query message was sent to 10.211.55.1

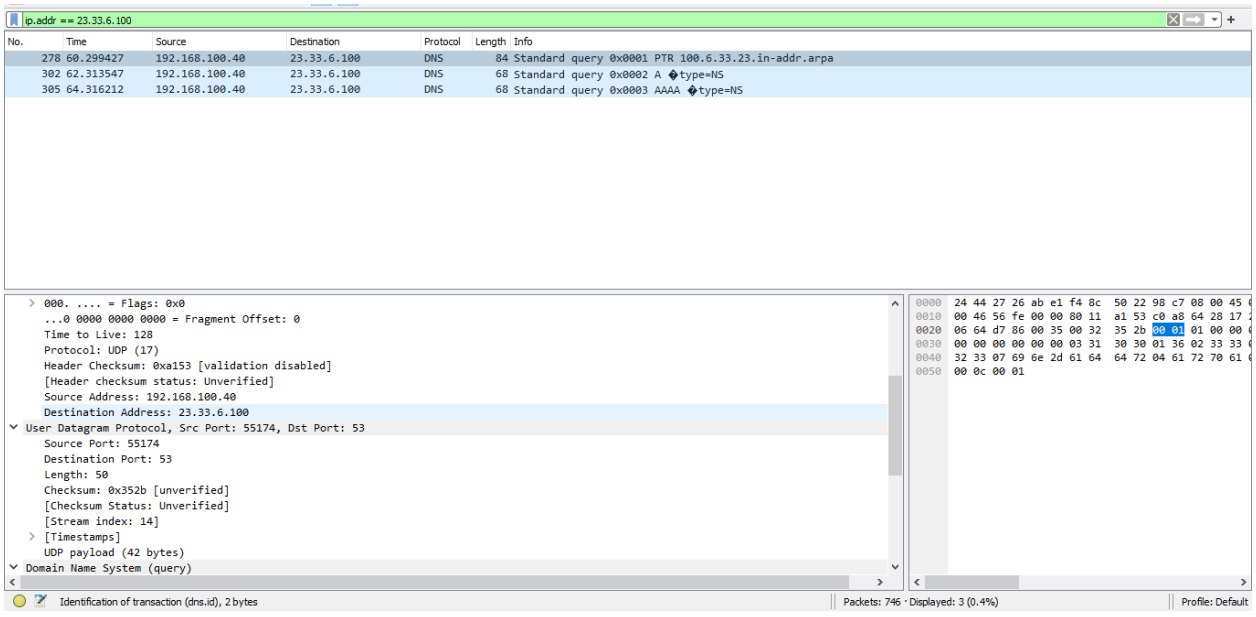
13. Standard type A (Host address) query (see screenshot). The message only contains a query (no answers).



14. Three answers (resource records), two corresponding to CNAMEs and one host address.



16. It was sent to 23.33.6.100



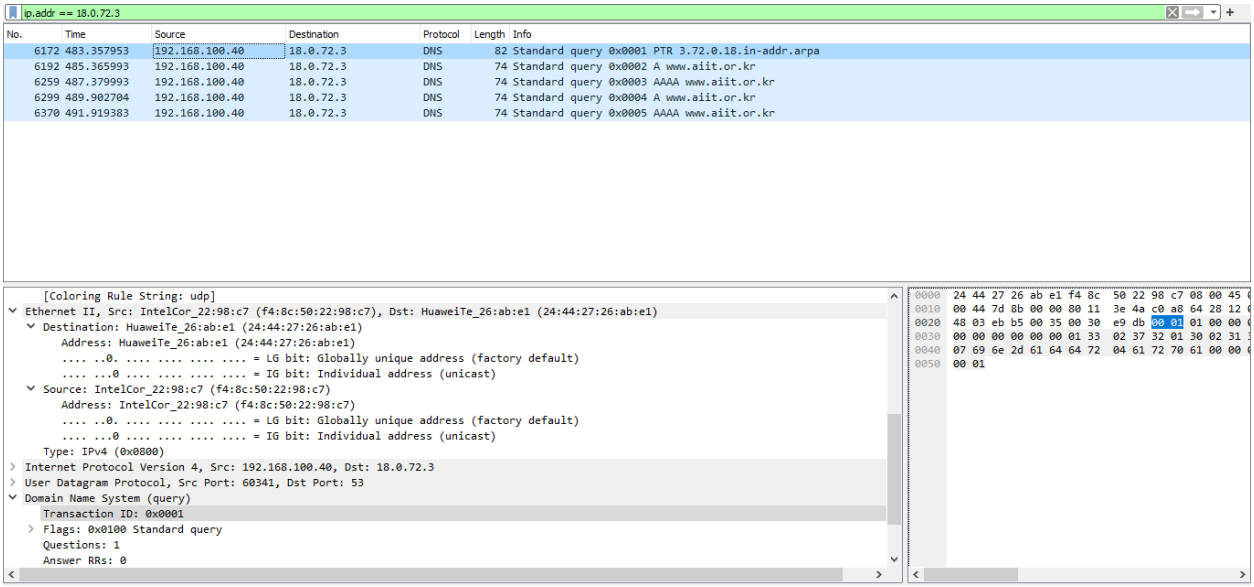
17. It is a “type A" query, which is for a standard host address resource record. No answers as shown in screenshot

```
    UDP payload (42 bytes)
▾ Domain Name System (query)
    Transaction ID: 0x0001
  ▸ Flags: 0x0100 Standard query
    Questions: 1
    Answer RRs: 0
    Authority RRs: 0
    Additional RRs: 0
  ▸ Queries
```

18. No the query request timed out thus no answers

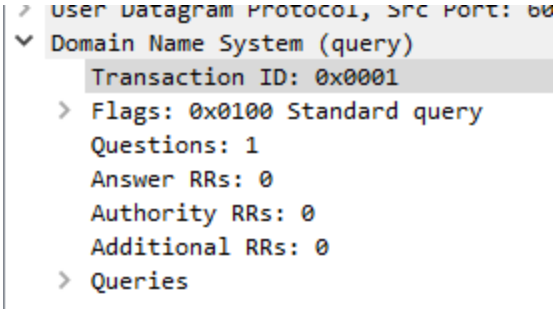
```
PS C:\WINDOWS\system32> nslookup -type=NS mit.edu
DNS request timed out.
    timeout was 2 seconds.
Server:  UnKnown
Address:  23.33.6.100

DNS request timed out.
    timeout was 2 seconds.
DNS request timed out.
    timeout was 2 seconds.
*** Request to UnKnown timed-out
PS C:\WINDOWS\system32>
```

19. It's a DNS Query



20. I was unable to get this to
work with bitsy.mit.edu so I used the Google public DNS 8.8.8.8. The query is sent to 8.8.8.8 (not the default local DNS server).

21. It is a "type A" query, which is for a standard host address resource record. No answers as shown in screenshot



22. The request timed out thus no answers provided.