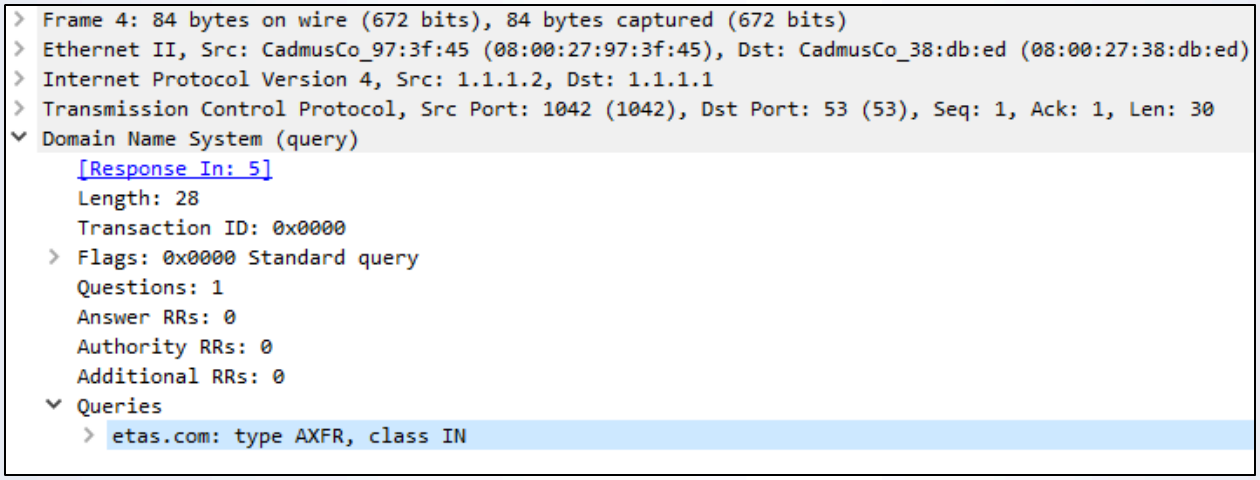
Category: Network Traffic Analysis
Bracket: Bronze
Title: DNS Challenge **SOLUTION**

This challenge evaluates the participant’s ability to understand a packet capture containing Domain Name System (DNS) traffic - https://www.dropbox.com/s/01lku2zp3f8t0gt/NCL-2015-DNS.pcap?dl=0. During the game, it was suggested to use the Wireshark program to solve the challenge.

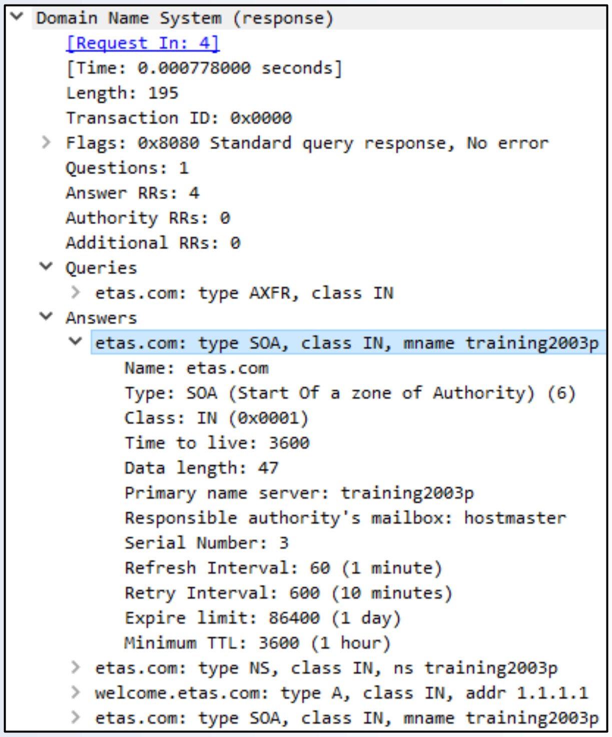
1. What was the type of the DNS query requested?	**AXFR**
2. What domain was requested?	**etas.com**
3. How many items were in the response?	**4**
4. What is the TTL for all of the records?	**3600**
5. What is the IP address for the "welcome" subdomain?	**1.1.1.1**

Questions 1-2 can be solved by looking for a packet with “Standard query” in the info column (packet #4). Once found, the Wireshark dissector will yield the answers.



```
> Frame 4: 84 bytes on wire (672 bits), 84 bytes captured (672 bits)
> Ethernet II, Src: CadmusCo_97:3f:45 (08:00:27:97:3f:45), Dst: CadmusCo_38:db:ed (08:00:27:38:db:ed)
> Internet Protocol Version 4, Src: 1.1.1.2, Dst: 1.1.1.1
> Transmission Control Protocol, Src Port: 1042 (1042), Dst Port: 53 (53), Seq: 1, Ack: 1, Len: 30
v Domain Name System (query)
     [Response In: 5]
     Length: 28
     Transaction ID: 0x0000
   > Flags: 0x0000 Standard query
     Questions: 1
     Answer RRs: 0
     Authority RRs: 0
     Additional RRs: 0
   v Queries
     > etas.com: type AXFR, class IN
```

Questions 3-5 can be solved by looking for a packet with “Standard query response” in the info column (packet #5). Once found, the Wireshark dissector will yield the answers.



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v Domain Name System (response)
     [Request In: 4]
     [Time: 0.000778000 seconds]
     Length: 195
     Transaction ID: 0x0000
   > Flags: 0x8080 Standard query response, No error
     Questions: 1
     Answer RRs: 4
     Authority RRs: 0
     Additional RRs: 0
   v Queries
     > etas.com: type AXFR, class IN
   v Answers
     v etas.com: type SOA, class IN, mname training2003p
           Name: etas.com
           Type: SOA (Start Of a zone of Authority) (6)
           Class: IN (0x0001)
           Time to live: 3600
           Data length: 47
           Primary name server: training2003p
           Responsible authority's mailbox: hostmaster
           Serial Number: 3
           Refresh Interval: 60 (1 minute)
           Retry Interval: 600 (10 minutes)
           Expire limit: 86400 (1 day)
           Minimum TTL: 3600 (1 hour)
     > etas.com: type NS, class IN, ns training2003p
     > welcome.etas.com: type A, class IN, addr 1.1.1.1
     > etas.com: type SOA, class IN, mname training2003p
```