Department of Computer Science-Software Engineering

Computer Networks Lab

Task: 4 Wireshark & DNS

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1. What is the destination port for the DNS query message? What is the source port of the DNS response message?

Answer:

- The destination port for the DNS query is port 53, which is the standard port used for DNS services.

```
> Frame 703: 87 bytes on wire (696 bits), 87 bytes captured (696 bits) on interface \Device\NPF_
> Ethernet II, Src: Pegatron_9c:88:f9 (38:60:77:9c:88:f9), Dst: Cisco_88:6d:d6 (08:cc:a7:88:6d:d
> Internet Protocol Version 4, Src: 172.20.43.49, Dst: 1.1.1.1
> User Datagram Protocol, Src Port: 62499, Dst Port: 53
> Domain Name System (query)
```

2. To what IP address is the DNS query message sent? Is this the IP address of your default local DNS server?

Answer:

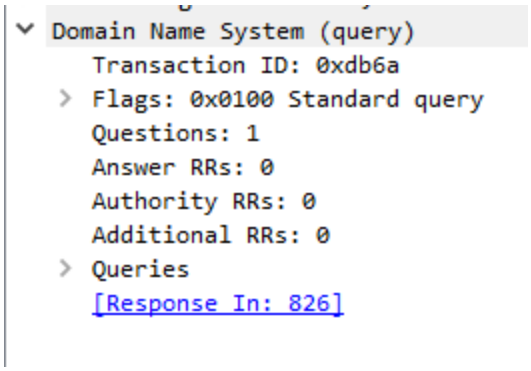
- The DNS query message is sent to IP address 1.1.1.1.
- If your system is configured to use 1.1.1.1 as its DNS resolver, then yes, this is your configured DNS server, but it's not local.


```
> Frame 703: 87 bytes on wire (696 bits), 87 bytes captured (696 bits) on interface \Device\NPF_
> Ethernet II, Src: Pegatron_9c:88:f9 (38:60:77:9c:88:f9), Dst: Cisco_88:6d:d6 (08:cc:a7:88:6d:d
> Internet Protocol Version 4, Src: 172.20.43.49, Dst: 1.1.1.1
> User Datagram Protocol, Src Port: 62499, Dst Port: 53
> Domain Name System (query)
```


3. Examine the DNS query message. What “Type” of DNS query is it? Does the query message contain any “answers”?

Answer:

- The DNS query is of Type A, which requests the IPv4 address associated with a domain name.
- The query does not contain any answers — it’s just a request asking for the IP of the domain.



4. Examine the DNS response message. How many "answers" are provided? What do each of these answers contain?

Answer:

- In the DNS response, multiple answers may be provided.
- Each answer contains:
  - Name (domain)
  - Type A (IPv4 address)
  - Class IN (Internet)
  - Time to Live (TTL)
  - Resolved IP address