

COMPENG 4DN4 Lab 1 Report

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TCP: Wireshark

Figure 1: <http://compeng4dn4.mo00.com:50008/photos/351.jpeg>



TCP: WinDump

DNS

The `nslookup` utility was used to do a DNS query on the `compeng4dn4.mo00.com` server. The terminal output of the DNS query is shown in Listing 1.

Listing 1: DNS Query Terminal Output

```
1 nslookup compeng4dn4.mo00.com
2 Server: mynetwork
3 Address: 192.168.2.1
4
5 Non-authoritative answer:
6 Name: compeng4dn4.mo00.com
7 Address: 99.236.34.223
```

The Wireshark capture for the DNS query is shown below in Figure 2. The capture was filtered for DNS queries containing `compeng4dn4.mo00.com`, using the display filter `dns.qry.name contains "compeng4dn4.mo00.com"`.

The DNS query first searches for `compeng4dn4.mo00.com` with the DNS suffix `.home`, performing the query with "A" and "AAAA" records, for mapping hostnames to IPv4 and IPv6 addresses. Both DNS queries return "no such name" indicating that the queries are unsuccessful. The DNS query then queries `compeng4dn4.mo00.com` with no suffix, returning the correct IPv4 address for the A record. The AAAA record does not return any address.

Figure 2: DNS Query Display Filter

dns.qry.name contains "compeng4dn4.mo00.com"					
No.	Time	Source	Destination	Protocol	Length Info
202	16.449334	192.168.2.49	192.168.2.1	DNS	85 Standard query 0x0002 A compeng4dn4.mo00.com.home
203	16.454914	192.168.2.1	192.168.2.49	DNS	85 Standard query response 0x0002 No such name A compeng4dn4.mo00.com.home
204	16.455021	192.168.2.49	192.168.2.1	DNS	85 Standard query 0x0003 AAAA compeng4dn4.mo00.com.home
205	16.459511	192.168.2.1	192.168.2.49	DNS	85 Standard query response 0x0003 No such name AAAA compeng4dn4.mo00.com.home
206	16.459602	192.168.2.49	192.168.2.1	DNS	80 Standard query 0x0004 A compeng4dn4.mo00.com
207	16.463819	192.168.2.1	192.168.2.49	DNS	96 Standard query response 0x0004 A compeng4dn4.mo00.com A 99.236.34.223
208	16.465093	192.168.2.49	192.168.2.1	DNS	80 Standard query 0x0005 AAAA compeng4dn4.mo00.com
209	16.469126	192.168.2.1	192.168.2.49	DNS	80 Standard query response 0x0005 AAAA compeng4dn4.mo00.com

Traceroute

Nmap