

Q1

May 5 2020

Figure 1:

Q2

Figure 2:

Q3

According to figure 3, cipher suite TLS\_ECDHE\_RSA\_WITH\_AES\_128\_GCM\_SHA256 is used.

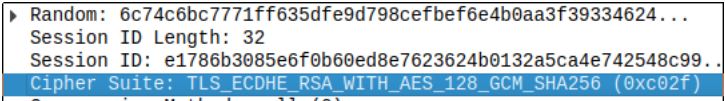


Figure 3:

Q4

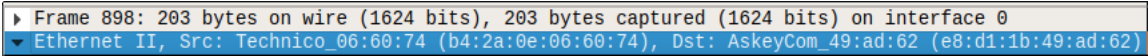


Figure 4:

MAC Address/OUI	Vendor (Company)
B42A0E066074	Technicolor CH USA Inc.

Figure 5:

MAC Address/OUI	Vendor (Company)
E8D11B49AD62	ASKEY COMPUTER CORP

Figure 6:

Q5

According to figure 7, the message that is being exchanged is "who has 192.168.0.3? Tell 192.168.0.1", other than this, the ARP message "192.168.1.1 is at 48:a4:72:b052:07" is also exchanged.



Figure 7:

Wireshark · Conversations · wlp6s0													
Ethernet · 3			IPv4 · 6		IPv6 · 2		TCP · 6		UDP · 2				
Address A	Port A	Address B	Port B	Packets	Bytes	Packets A → B	Bytes A → B	Packets B → A	Bytes B → A	Rel Start	Duration	Bits/s A → B	Bits/s B → A
192.168.0.4	38342	69.192.108.106	443	2	132	1	66	1	66	5.056656	0.0315	16 k	
192.168.0.4	50604	23.43.168.85	443	2	132	1	66	1	66	5.312659	0.0334	15 k	
192.168.0.4	45258	23.198.6.182	443	2	132	1	66	1	66	5.568656	0.0528	9,992	
192.168.0.4	60718	23.219.82.163	443	2	132	1	66	1	66	5.568666	0.0317	16 k	
2604:6000:8c47:e000:e9b7:e46f:2c47:44e4	58872	2606:4700:10::6814:230c	443	4	374	2	187	2	187	1.929150	0.0546	27 k	
2604:6000:8c47:e000:e9b7:e46f:2c47:44e4	58870	2606:4700:10::6814:230c	443	4	374	2	187	2	187	3.932154	0.0532	28 k	

Figure 8:

Wireshark · Conversations · wlp6s0													
Ethernet · 3			IPv4 · 6		IPv6 · 2		TCP · 6		UDP · 2				
Address A	Port A	Address B	Port B	Packets	Bytes	Packets A → B	Bytes A → B	Packets B → A	Bytes B → A	Rel Start	Duration	Bits/s A → B	Bits/s B → A
192.168.0.1	1901	239.255.255.250	1900	10	3,611	10	3,611	0	0	1.742346	0.0001	—	
192.168.0.1	1900	239.255.255.250	1900	4	1,415	4	1,415	0	0	5.058164	0.0010	—	

Figure 9:

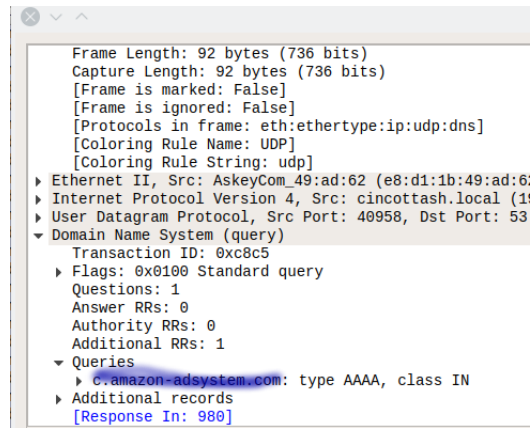


Figure 10:

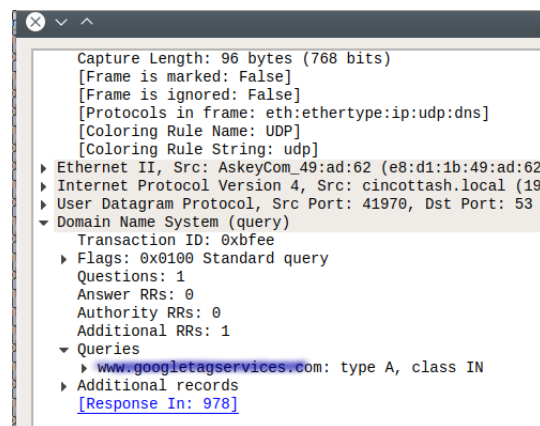


Figure 11:

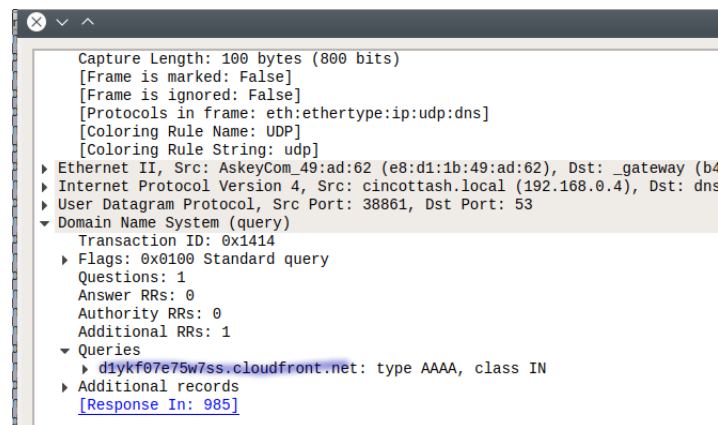


Figure 12:

## Q8

IP address provided to VM1 by the DHCP server, and the IP address mask (or prefix length) provided to VM1 by the DHCP server.

A screenshot of a terminal window showing the text "Your (client) IP address: 192.168.228.128" in a blue monospace font on a black background.

```
Your (client) IP address: 192.168.228.128
```

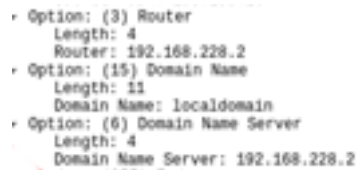
Figure 13:

A screenshot of a terminal window showing the text "Subnet Mask: 255.255.255.0" in a red monospace font on a black background.

```
Subnet Mask: 255.255.255.0
```

Figure 14:

DNS address provided to VM1 by the DHCP server, and the default route (e.g. router) address provided to VM1 by the DHCP server.

A screenshot of a terminal window showing DHCP options in a red monospace font on a black background. The options listed are: Option: (3) Router, Length: 4, Router: 192.168.228.2; Option: (15) Domain Name, Length: 11, Domain Name: localdomain; and Option: (6) Domain Name Server, Length: 4, Domain Name Server: 192.168.228.2.

```
Option: (3) Router
Length: 4
Router: 192.168.228.2
Option: (15) Domain Name
Length: 11
Domain Name: localdomain
Option: (6) Domain Name Server
Length: 4
Domain Name Server: 192.168.228.2
```

Figure 15: