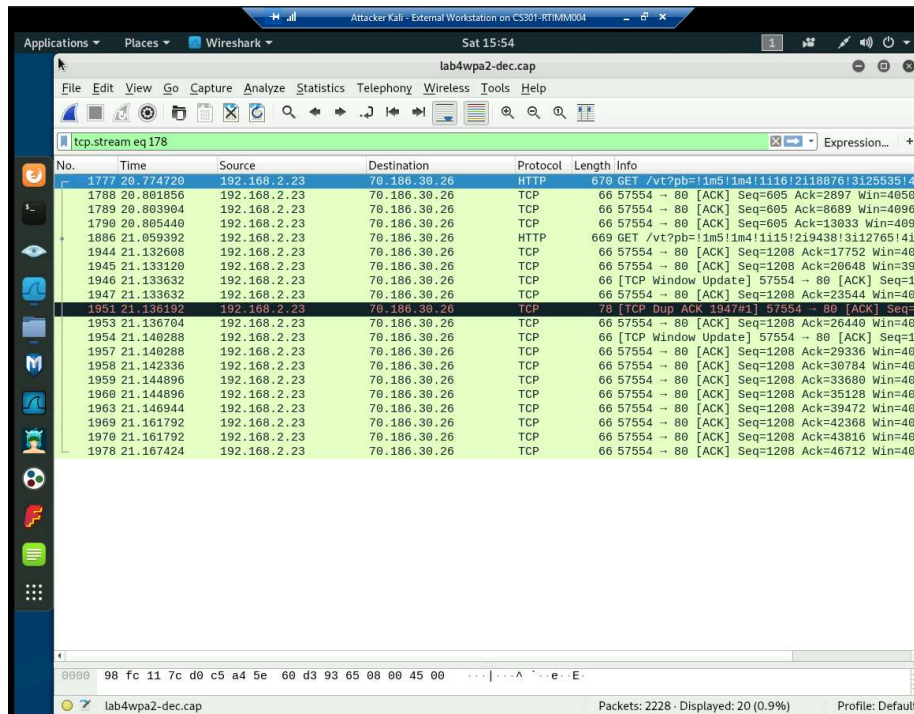
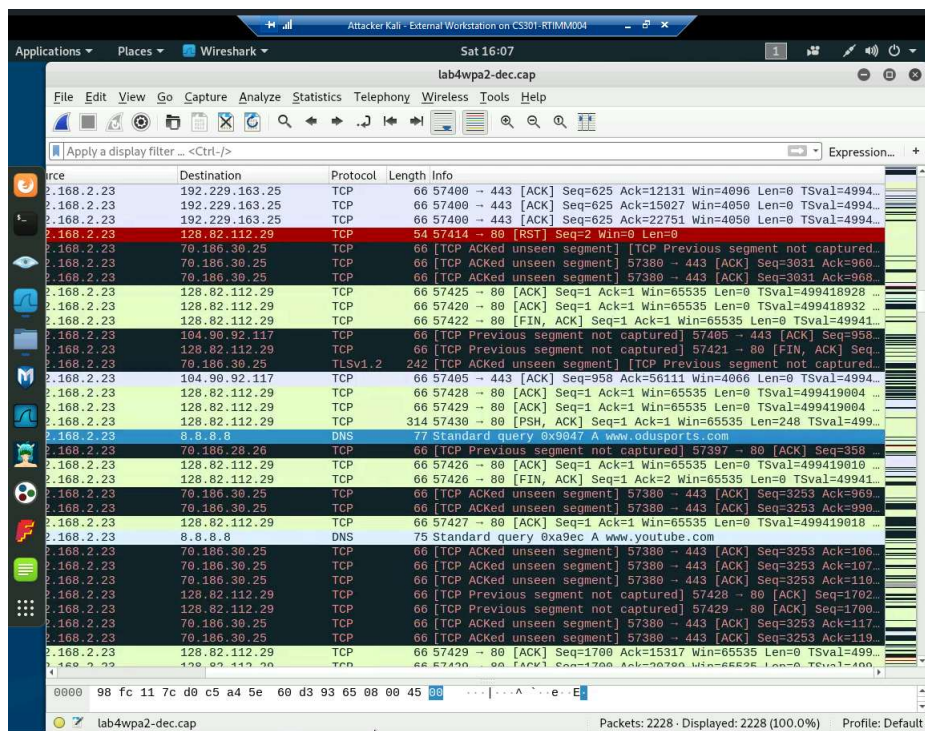




Above you can see HTTP ‘get’ commands.

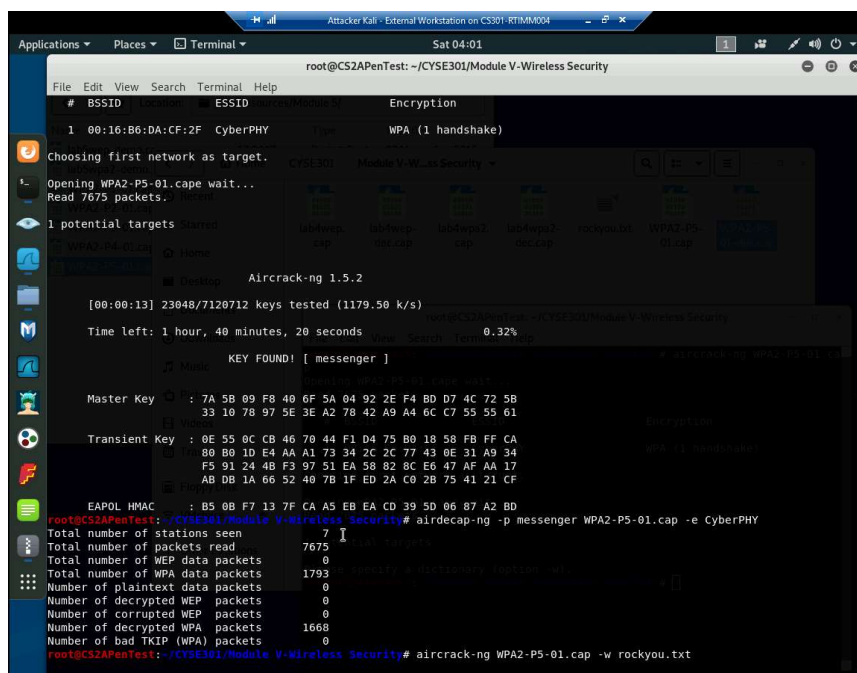
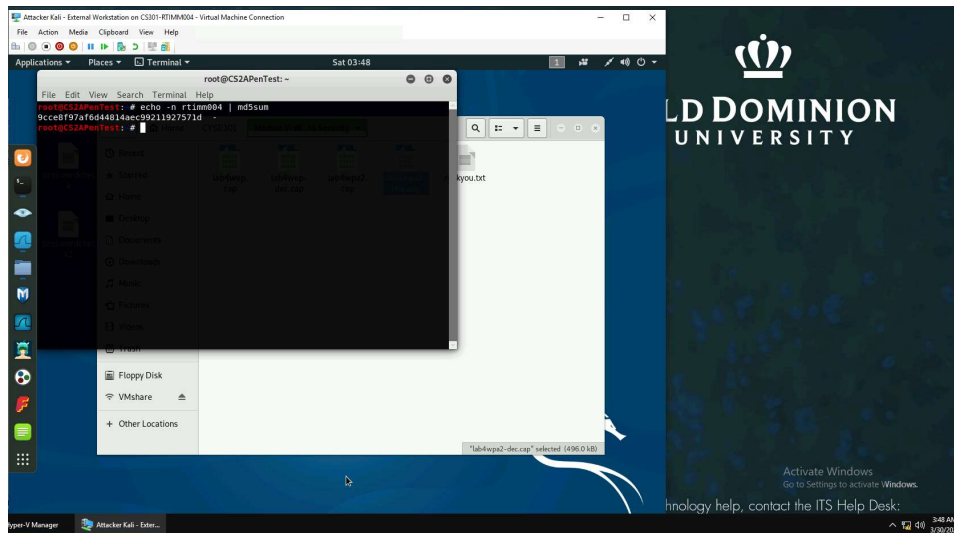


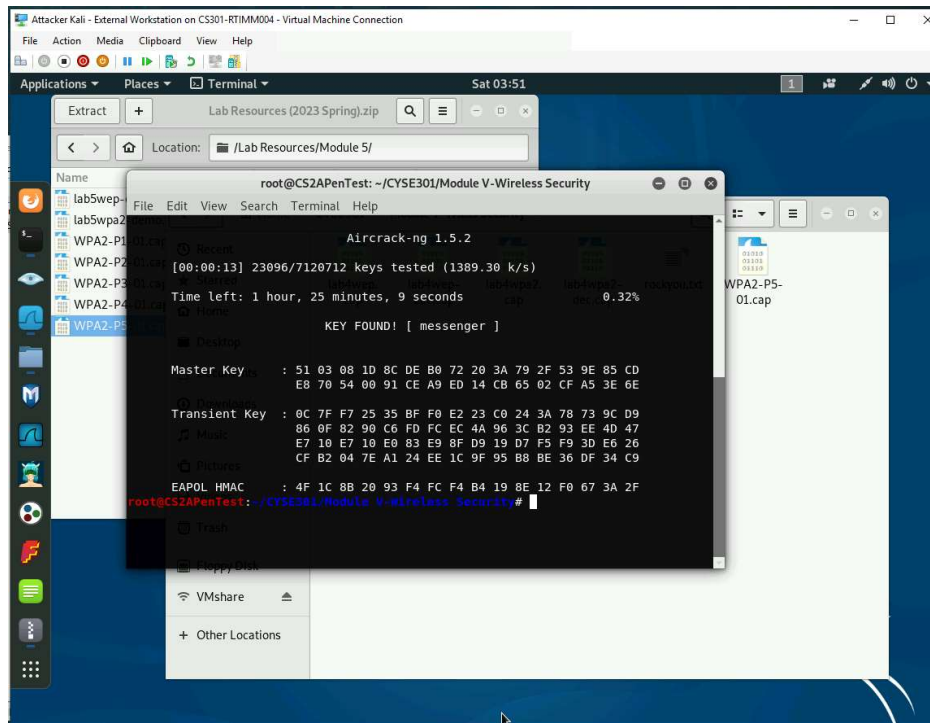
Above you can see a DNS query for youtube and ODUsports!!!

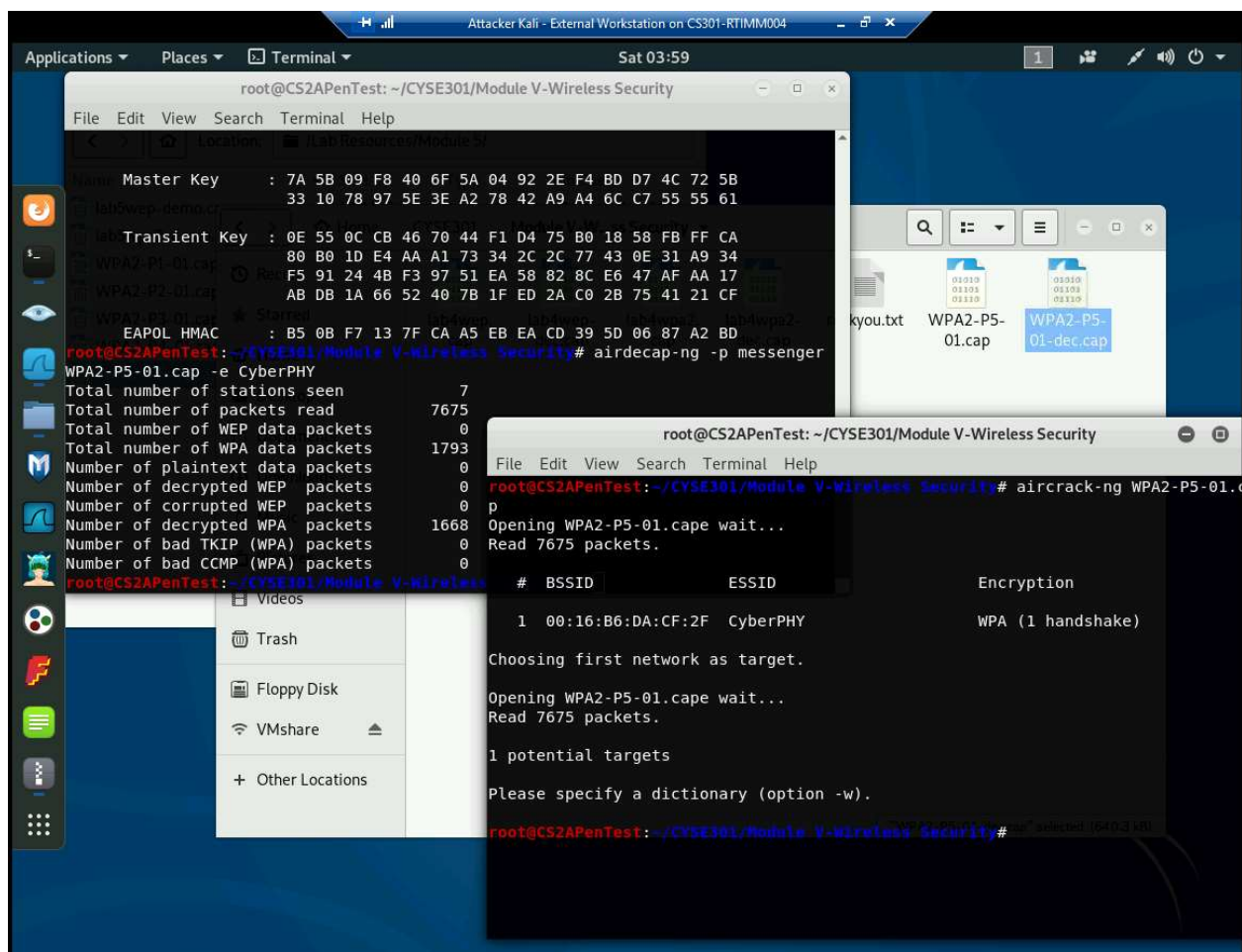
Task D

Use 'echo -n rtimm004 | md5sum' to get the right file.

After using the command, my hash ended in 'd', so I used the WPA2-P5-01.cap. The key was, after using the command, 'aircrack-ng WPA2-P5-01.cap -w rockyou.txt', messenger. The second screenshot reflects the output, then I redid the command to show syntax. Lastly, you can see me using airdecap and the ESSID to unencrypt the traffic.

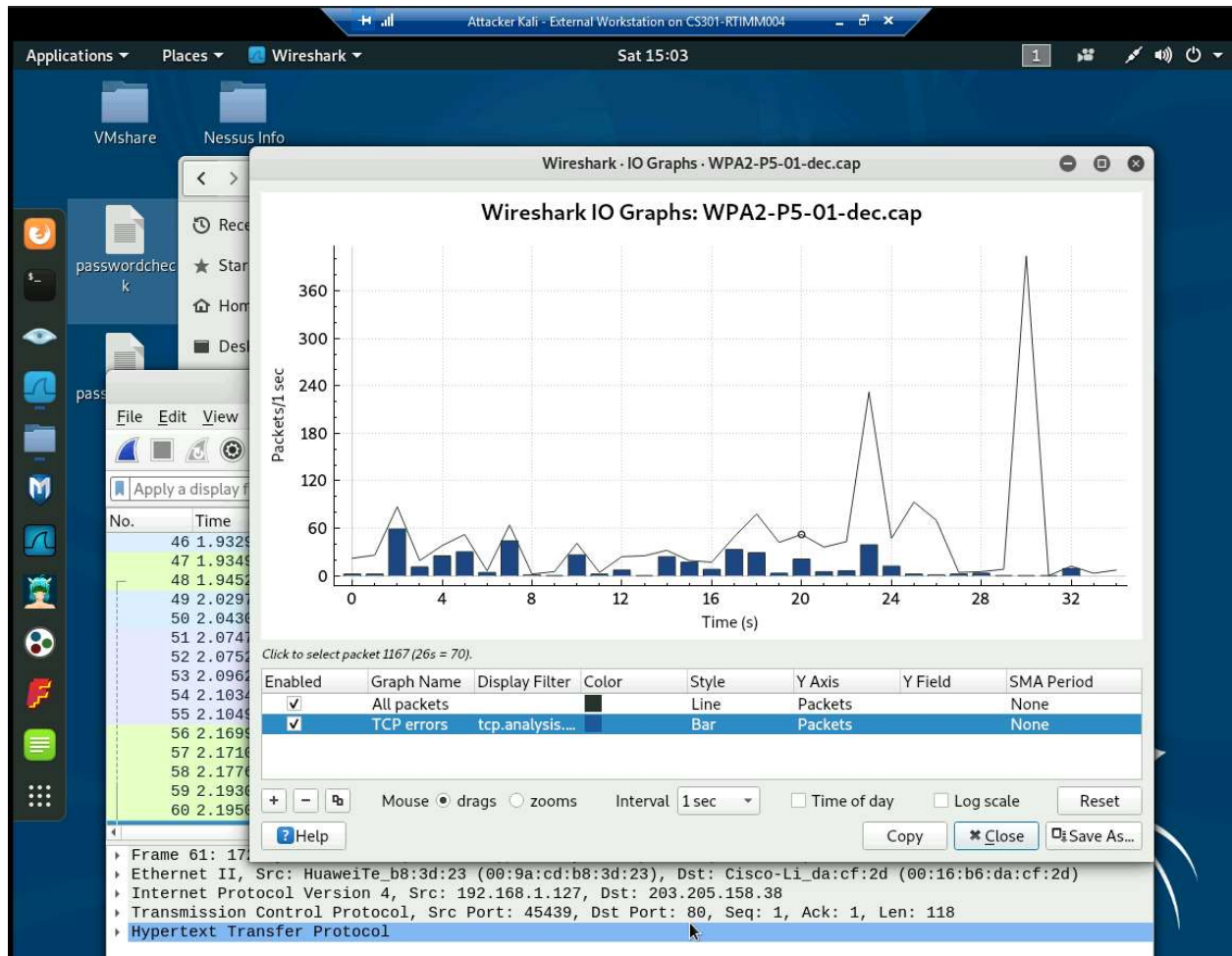


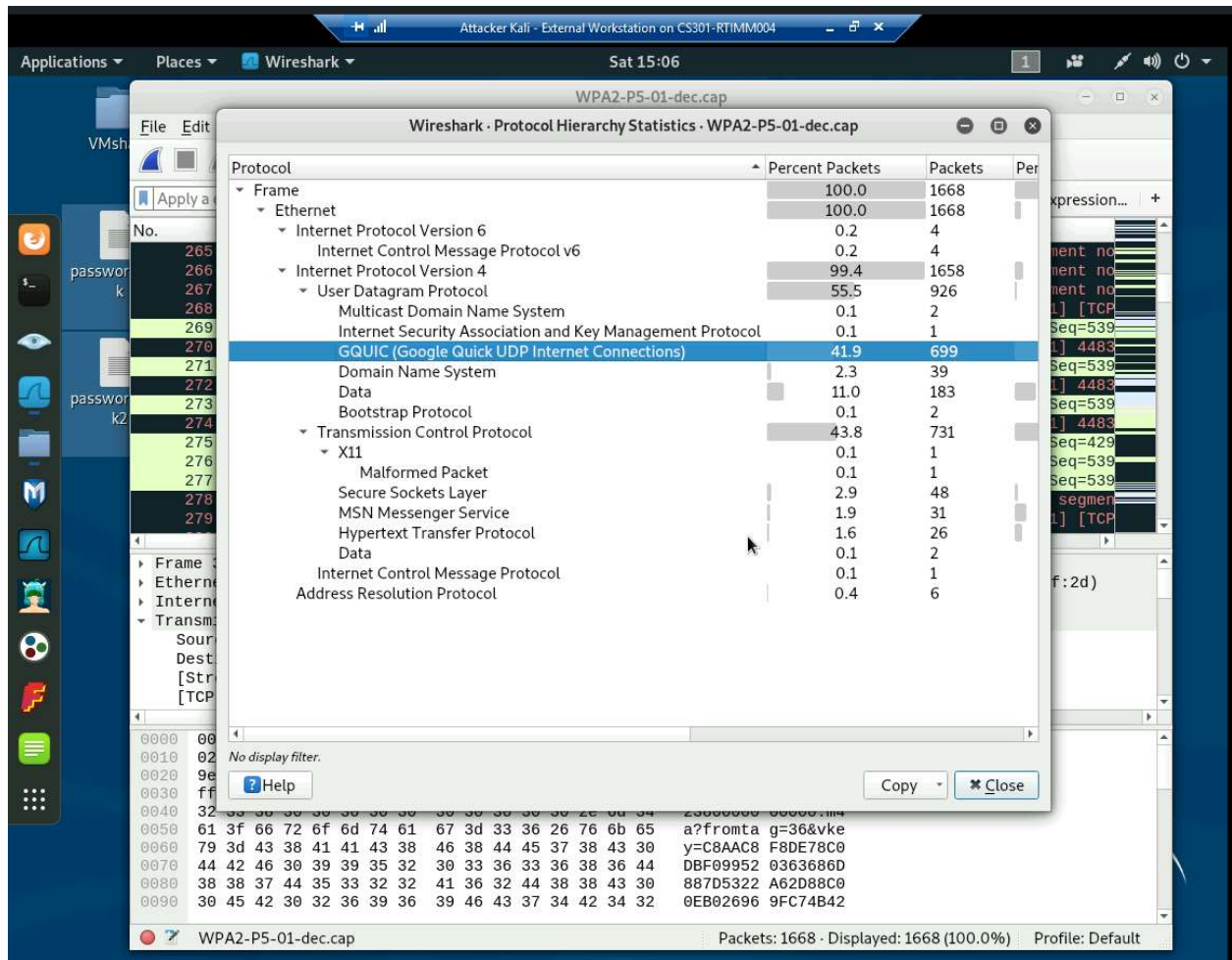




Detailed Summary

To preface, I'm really trying my best to understand what's going on in these capture files. We talked about HOW to get into the files, but not WHAT to look for, so I'm really lost in all the packets. Despite this, I did find that there were a lot of UDP traffic on the network. Protocols such as QUIC were used, and I saw googlevideo within the UDP stream. I believe whoever was on the network was watching something from google. I saw m4a and mp4 files scattered throughout the traffic as well, if this helps. I also saw, very early on in the traffic, someone get on taobao. I recognized this as a chinese webstore, and also recognized alipay. Looks like someone was trying to locate these websites with DNS. Hopefully this is enough information, I've been scouring these packet files, using filters and exports, and trying to get a handle of what's going on.





In the picture below you can see the DNS query for taobao and alipay

The image shows a Wireshark packet capture window titled "WPA2-P5-01-dec.cap". The interface includes a menu bar (File, Edit, View, Go, Capture, Analyze, Statistics, Telephony, Wireless, Tools, Help), a toolbar with various icons, and a display filter bar set to "Apply a display filter ... <Ctrl-/>".

The packet list pane shows a table of captured packets:

Source	Destination	Protocol	Length	Info
192.168.1.127	216.58.193.195	HTTP	286	GET /generate_204 HTTP/1.1
192.168.1.127	172.217.5.68	TLSv1.2	583	Client Hello
192.168.1.127	172.217.5.68	TLSv1.2	312	[TCP Previous segment not captured] , Appl
172.217.5.68	192.168.1.127	TCP	66	[TCP ACKed unseen segment] 443 → 46535 [AC
192.168.1.1	192.168.1.127	DNS	168	Standard query response 0x4cb5 A m.qpic.cn
192.168.1.127	192.168.1.1	DNS	74	Standard query 0x16da A www.taobao.com
192.168.1.127	192.168.1.1	DNS	84	Standard query 0x4643 AAAA mygw.alipay.com
192.168.1.127	66.198.24.243	TCP	74	40356 → 80 [SYN] Seq=0 Win=65535 Len=0 MSS
192.168.1.127	198.11.186.81	TCP	74	43170 → 443 [SYN] Seq=0 Win=65535 Len=0 MS
192.168.1.127	66.198.24.243	HTTP	114	HEAD / HTTP/1.1
66.198.24.243	192.168.1.127	TCP	54	80 → 40356 [ACK] Seq=1 Ack=61 Win=29 Len=0
198.11.186.81	192.168.1.127	TCP	74	443 → 43170 [SYN, ACK] Seq=0 Ack=1 Win=129
192.168.1.127	198.11.186.81	TCP	54	43170 → 443 [ACK] Seq=1 Ack=1 Win=65535 Le
192.168.1.127	198.11.186.81	SSLv3	152	Client Hello
HuaweiTe_b8:3d:23	Broadcast	ARP	42	Who has 208.54.65.100? Tell 192.168.1.127

The packet details pane for the selected packet (Frame 9) shows:

- Frame 9: 89 bytes on wire (712 bits), 89 bytes captured (712 bits)
- Ethernet II, Src: HuaweiTe_b8:3d:23 (00:9a:cd:b8:3d:23), Dst: Cisco-Li_da:cf:2d (00:16:b6:da:cf:2d)
- Internet Protocol Version 4, Src: 192.168.1.127, Dst: 192.168.1.1
- User Datagram Protocol, Src Port: 10418, Dst Port: 53
- Domain Name System (query)

The packet bytes pane shows the raw data in hexadecimal and ASCII:

```
0000  00 16 b6 da cf 2d 00 9a cd b8 3d 23 08 00 45 00  .....E-
0010  00 4b e7 98 40 00 40 11 cf 38 c0 a8 01 7f c0 a8  .K..@. .8.....
0020  01 01 28 b2 00 35 00 37 28 e1 03 98 01 00 00 01  ..(.5.7 (.....
0030  00 00 00 00 00 00 11 63 6f 6e 6e 65 63 74 69 76  ....c onnectiv
0040  69 74 79 63 68 65 63 6b 07 67 73 74 61 74 69 63  itycheck gstatic
0050  03 63 6f 6d 00 00 01 00 01  ....com.....
```

The status bar at the bottom indicates "Packets: 1668 · Displayed: 1668 (100.0%) Profile: Default".

Here's a pic of all the GQUIC traffic!

WPA2-P5-01-dec.cap

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/> Expression...

No.	Time	Source	Destination	Protocol	Length	Info
1102	25.478224	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1103	25.479235	70.186.28.16	192.168.1.127	GQUIC	1392	Payload (Encrypted), PKN
1104	25.481795	70.186.28.16	192.168.1.127	GQUIC	1392	Payload (Encrypted), PKN
1105	25.483857	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1106	25.484369	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1107	25.484867	70.186.28.16	192.168.1.127	GQUIC	1392	Payload (Encrypted), PKN
1108	25.485891	70.186.28.16	192.168.1.127	GQUIC	1392	Payload (Encrypted), PKN
1109	25.487441	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1110	25.487953	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1111	25.496657	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1112	25.497169	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1113	25.501251	70.186.28.16	192.168.1.127	GQUIC	1392	Payload (Encrypted), PKN
1114	25.503314	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1115	25.503312	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN
1116	25.503825	192.168.1.127	70.186.28.16	GQUIC	81	Payload (Encrypted), PKN

Frame 328: 1514 bytes on wire (12112 bits), 1514 bytes captured (12112 bits)

Ethernet II, Src: Cisco-Li_da:cf:2d (00:16:b6:da:cf:2d), Dst: HuaweiTe_b8:3d:23 (00:9a:cd:b8:3d:23)

Internet Protocol Version 4, Src: 203.205.158.71, Dst: 192.168.1.127

Transmission Control Protocol, Src Port: 80, Dst Port: 42007, Seq: 6178, Ack: 524, Len: 1460

Source Port: 80

Destination Port: 42007

[Stream index: 18]

[TCP Segment Len: 1460]

Sequence number: 6178 (relative sequence number)

0000 00 9a cd b8 3d 23 00 16 b6 da cf 2d 08 00 45 60 ...=#... ..E`

0010 05 dc 2e 2a 40 00 35 06 e5 55 cb cd 9a 47 c0 a8 ...*@.5. .U...G..

0020 01 7f 00 50 a4 17 9d 1a 17 f3 dc c2 38 8b 50 10 ...P... ..8.P.

0030 3c b8 d7 ad 00 00 48 4a b1 4c 1b 6e 01 41 02 00 <...HJ .L.n.A.

0040 6b 4e 4f d9 91 10 26 15 0a 82 a0 85 05 4a 98 01 kN0...&... ..J..

0050 bc 23 40 a0 03 c0 84 b3 a1 06 ce 43 09 83 38 d8 -#@... ..C..8.

0060 29 a6 e7 ae bd bb 70 03 80 01 10 33 a0 64 83 90)...p... ..3.d.

0070 08 46 05 00 88 68 00 01 83 43 fd c4 a8 08 d7 5e .F...h... ..C....^

0080 fc 5f 81 48 13 af 5b 8e a5 59 6b d6 6f b5 29 17 .H..[. .Yk.o.)

0090 9d 6b 25 1a eb 74 ef a0 ef d9 8b 4e 33 02 60 cc .k%..t... ..N3..

Bytes 26-29: Source (ip.src) Packets: 1668 · Displayed: 1668 (100.0%) Profile: Default