



TECNOLOGICO NACIONAL DE MEXICO

INSTITUTO TECNOLÓGICO DE CANCÚN

FUNDAMENTOS DE TELECOMUNICACIONES

Ingeniería en Sistemas Computacionales

ALUMNO: OSWALDO ENRIQUE TUYUB JIMENEZ

DOCENTE: ING. ISMAEL JIMENEZ SANCHEZ

ACTIVIDAD

“LABORATORIO 27”

UNIDAD 3

1)

The screenshot shows a Wireshark capture of an HTTP GET request. The packet list pane displays the following entries:

No.	Time	Source	Destination	Protocol	Info
1	0.000000	24.6.173.220	173.194.79.121	TCP	61598 → 80 [SYN] Seq=0 Win=8192 Len=0 MSS=1460 WS=4 SACK_PERM=1
2	0.035945	173.194.79.121	24.6.173.220	TCP	80 → 61598 [SYN, ACK] Seq=0 Ack=1 Win=14300 Len=0 MSS=1430 SACK_PERM=1 WS=64
3	0.036067	24.6.173.220	173.194.79.121	TCP	61598 → 80 [ACK] Seq=1 Ack=1 Win=65780 Len=0
4	0.036487	24.6.173.220	173.194.79.121	HTTP	GET /api/supported-services.json HTTP/1.1
5	0.072022	173.194.79.121	24.6.173.220	TCP	80 → 61598 [ACK] Seq=1 Ack=323 Win=15424 Len=0
6	0.074280	173.194.79.121	24.6.173.220	HTTP/1.1	200 OK, JavaScript Object Notation (application/json)
7	0.270033	24.6.173.220	173.194.79.121	TCP	61598 → 80 [ACK] Seq=323 Ack=1127 Win=64652 Len=0
8	9.700260	24.6.173.220	75.75.75.75	DNS	Standard query 0xe984 A www.china.org.cn

The packet details pane for the selected packet (No. 6) shows:

- Frame 61: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF\_{6E79FEC0-FF79-4970-96E4-EEFF300A9B9F}, id 0
- Ethernet II, Src: HewlettP\_a7:bfa3 (d4:85:64:a7:bfa3), Dst: Cadant\_31:bb:c1 (00:01:5c:31:bb:c1)
- Internet Protocol Version 4, Src: 24.6.173.220, Dst: 210.72.21.11
- Transmission Control Protocol, Src Port: 61601, Dst Port: 80, Seq: 0, Len: 0

The packet bytes pane shows the raw data of the packet, including the Ethernet II header, IP header, and TCP header.

2)

The screenshot shows a Wireshark capture of an HTTP GET request. The packet list pane displays the following entries:

No.	Time	Source	Destination	Protocol	Info
10	9.712881	24.6.173.220	75.75.75.75	DNS	Standard query 0x9282 AAAA www.china.org.cn
11	9.726488	75.75.75.75	24.6.173.220	DNS	Standard query response 0x9282 AAAA www.china.org.cn CNAME www.china.org.chinacache.net CNAME www.china.org.cnc.cgsib.n
12	9.727620	24.6.173.220	209.177.86.18	TCP	61599 → 80 [SYN] Seq=0 Win=8192 Len=0 MSS=1460 WS=4 SACK_PERM=1
13	9.812805	209.177.86.18	24.6.173.220	TCP	80 → 61599 [SYN, ACK] Seq=0 Ack=1 Win=14300 Len=0 MSS=1460 SACK_PERM=1 WS=128
14	9.813017	24.6.173.220	209.177.86.18	TCP	61599 → 80 [ACK] Seq=1 Ack=1 Win=65700 Len=0
15	9.814006	24.6.173.220	209.177.86.18	HTTP	GET / HTTP/1.1
16	9.901496	209.177.86.18	24.6.173.220	TCP	80 → 61599 [ACK] Seq=1 Ack=291 Win=5504 Len=0
17	9.902302	209.177.86.18	24.6.173.220	TCP	80 → 61599 [PSH, ACK] Seq=1 Ack=291 Win=5504 Len=346 [TCP segment of a reassembled PDU]

The packet details pane for the selected packet (No. 17) shows:

- Frame 61: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF\_{6E79FEC0-FF79-4970-96E4-EEFF300A9B9F}, id 0
- Ethernet II, Src: HewlettP\_a7:bfa3 (d4:85:64:a7:bfa3), Dst: Cadant\_31:bb:c1 (00:01:5c:31:bb:c1)
- Internet Protocol Version 4, Src: 24.6.173.220, Dst: 210.72.21.11
- Transmission Control Protocol, Src Port: 61601, Dst Port: 80, Seq: 0, Len: 0

The packet bytes pane shows the raw data of the packet, including the Ethernet II header, IP header, and TCP header.

3)

Wireshark capture of `http-browse101d.pcapng`. The interface shows the packet list, packet details, and packet bytes panes.

**Packet List:**

No.	Time	Source	Destination	Protocol	Info
62	10.427	24.6.173.220	75.75.75.75	DNS	Standard query 0x6a8e A log.china.cn
63	10.441	75.75.75.75	24.6.173.220	DNS	Standard query response 0x6a8e A log.china.cn A 210.72.21.11
64	10.443	24.6.173.220	210.72.21.11	TCP	61602 → 80 [SYN] Seq=0 Win=8192 Len=0 MSS=1460 WS=4 SACK_PERM=1
65	10.445	210.72.21.11	24.6.173.220	TCP	80 → 61601 [SYN, ACK] Seq=0 Ack=1 Win=5840 Len=0 MSS=1460 SACK_PERM=1 WS=32
66	10.445	24.6.173.220	210.72.21.11	TCP	61601 → 80 [ACK] Seq=1 Ack=1 Win=65700 Len=0
67	10.446	24.6.173.220	210.72.21.11	HTTP	GET /log.js HTTP/1.1
68	10.712	210.72.21.11	24.6.173.220	TCP	80 → 61602 [SYN, ACK] Seq=0 Ack=1 Win=5840 Len=0 MSS=1460 SACK_PERM=1 WS=32
69	10.712	24.6.173.220	210.72.21.11	TCP	61602 → 80 [ACK] Seq=1 Ack=1 Win=65700 Len=0

**Packet Details:**

- Frame 61: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF\_{6E79FEC0-FF79-4970-96E4-EEFF300A9B9F}, id 0
- Ethernet II, Src: HewlettP\_a7:bf:a3 (d4:85:64:a7:bf:a3), Dst: Cadant\_31:bb:c1 (00:01:5c:31:bb:c1)
- Internet Protocol Version 4, Src: 24.6.173.220, Dst: 210.72.21.11
- Transmission Control Protocol, Src Port: 61601, Dst Port: 80, Seq: 0, Len: 0

**Packet Bytes:**

```
0000 00 01 5c 31 bb c1 d4 85 64 a7 bf a3 00 00 45 00  ..\1....d....E.
0010 00 34 1b 0c 40 00 80 06 00 00 18 06 ad dc d2 48  .4.@.....H
0020 15 0b f0 a1 00 50 a4 ed da 04 00 00 00 00 00 02  ....P.....
0030 20 00 ad 5c 00 00 02 05 b4 01 03 02 01 01  ..\.....
0040 04 02  ..
```

4)

Wireshark capture of `http-browse101d.pcapng`. The interface shows the packet list, packet details, and packet bytes panes.

**Packet List:**

No.	Time	Source	Destination	Protocol	Info
133	10.944	24.6.173.220	209.177.86.18	TCP	61606 → 80 [ACK] Seq=322 Ack=535 Win=65164 Len=0
134	10.945	209.177.86.18	24.6.173.220	HTTP	HTTP/1.0 200 OK (GIF89a)
135	10.945	24.6.173.220	209.177.86.18	TCP	61605 → 80 [ACK] Seq=322 Ack=625 Win=65076 Len=0
136	10.945	24.6.173.220	209.177.86.18	HTTP	GET /images/en/2011first/120622-qd.jpg HTTP/1.1
137	10.946	24.6.173.220	209.177.86.18	HTTP	GET /images/en/2011first/121101-en.jpg HTTP/1.1
138	10.991	210.72.21.11	24.6.173.220	TCP	80 → 61601 [ACK] Seq=2921 Ack=268 Win=6912 Len=1460 [TCP segment of a reassembled PDU]
139	10.993	210.72.21.11	24.6.173.220	HTTP	HTTP/1.1 200 OK (text/javascript)
140	10.993	24.6.173.220	210.72.21.11	TCP	61601 → 80 [ACK] Seq=268 Ack=4742 Win=65700 Len=0

**Packet Details:**

- Frame 134: 292 bytes on wire (2336 bits), 292 bytes captured (2336 bits) on interface \Device\NPF\_{6E79FEC0-FF79-4970-96E4-EEFF300A9B9F}, id 0
- Ethernet II, Src: Cadant\_31:bb:c1 (00:01:5c:31:bb:c1), Dst: HewlettP\_a7:bf:a3 (d4:85:64:a7:bf:a3)
- Internet Protocol Version 4, Src: 209.177.86.18, Dst: 24.6.173.220
- Transmission Control Protocol, Src Port: 80, Dst Port: 61605, Seq: 387, Ack: 322, Len: 238
- [2 Reassembled TCP Segments (624 bytes): #131(386), #134(238)]
- Hypertext Transfer Protocol
- CompuServe GIF, Version: GIF89a

**Packet Bytes:**

```
0000 d4 85 64 a7 bf a3 00 01 5c 31 bb c1 00 00 45 20  ..d....\1....E
0010 01 16 54 2c 40 00 34 06 03 f0 d1 b6 12 18 06  ..T.@.4...V...
0020 ad dc 00 50 f0 a5 b6 66 20 5b 32 aa d2 c6 50 18  ....P...f [2...P
0030 00 2b 2b 61 00 00 47 49 46 38 39 61 11 00 0e 00  ...+a..GI F89a...
0040 c4 00 0b 1c 22 dc 8d 90 fb f1 f1 c6 47 4c ed  ....GL...
0050 c6 c0 d3 71 75 b0 2a 30 e5 aa ac f2 64 d5 c2 38  ....qu*o.....8
0060 3e ff ff ff cb 55 59 d0 80 83 f6 c3 e9 b8 ba  >...UV.....
0070 cf 63 67 e0 9b 9e 00 00 00 00 00 00 00 00 00  ..cg.....
0080 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
0090 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
00a0 00 00 00 21 f9 04 00 07 00 ff 00 2c 00 00 00  ....[.....
00b0 11 00 0e 00 00 05 6b a0 22 8a 05 60 9e 06 32 ae  ....k "...2-
00c0 04 a0 8e 8b 91 ae 62 4b 2f 41 31 b3 00 40 fc 8d  ....bK /A1:..@
00d0 02 43 a1 7b d5 7a 8b a4 c3 01 48 02 0c 2b c1 41  ..C{:z...H...+A
00e0 10 a8 12 14 84 6a 00 d0 78 24 bf 60 5c 43 f4 3c  ....f...x$...C<
```