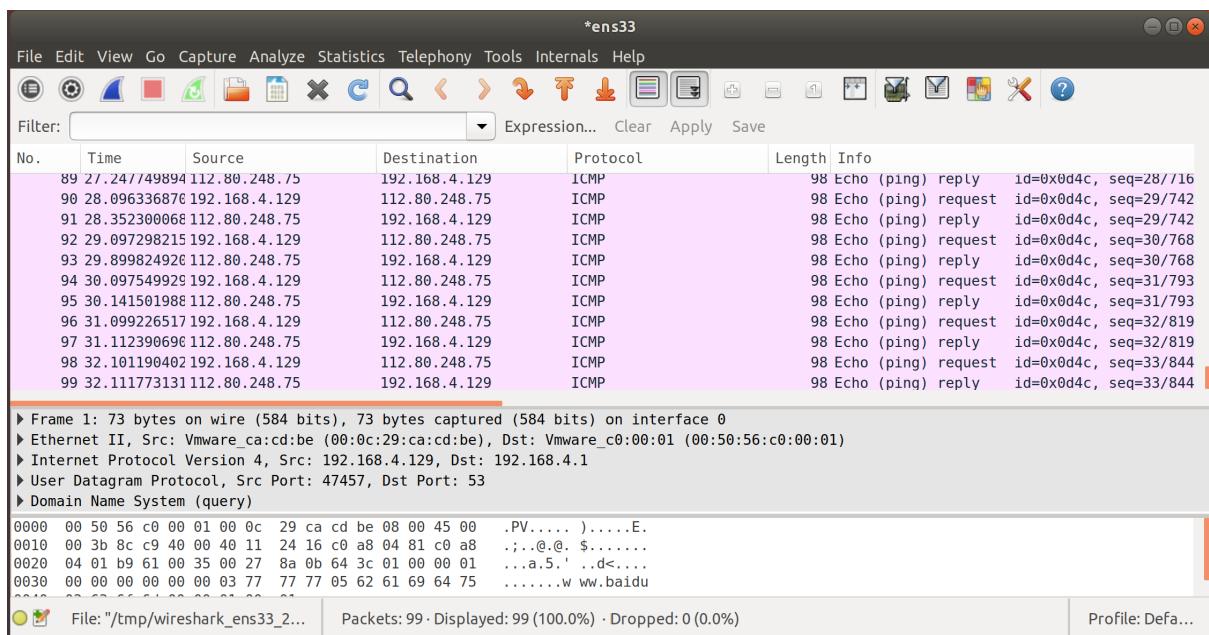
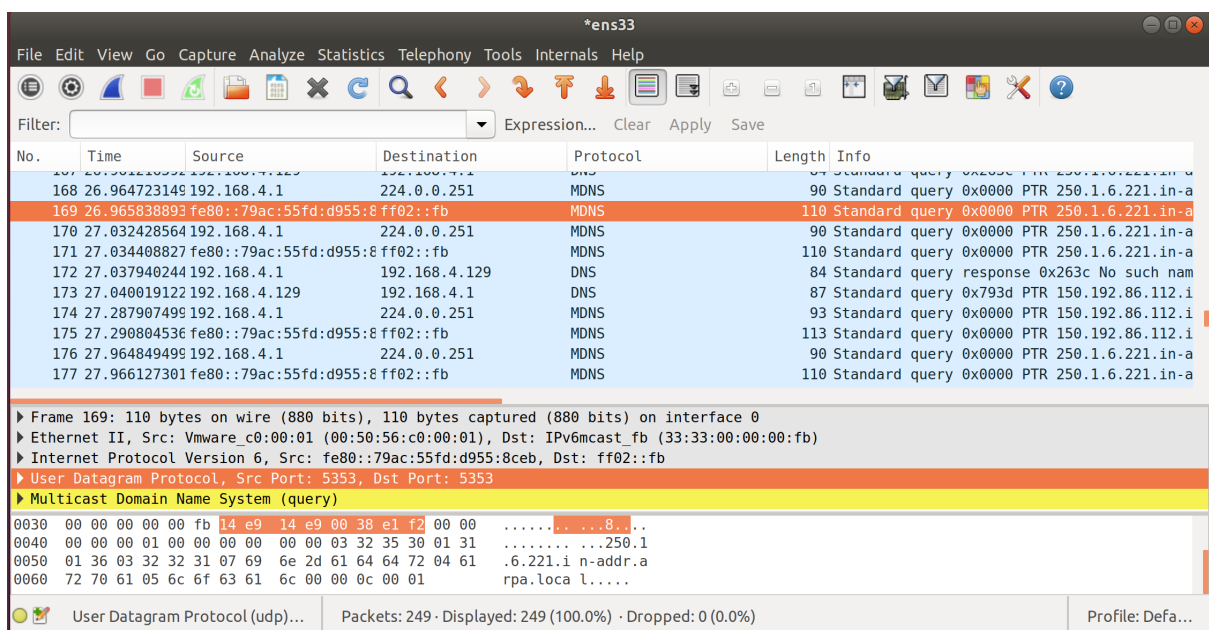


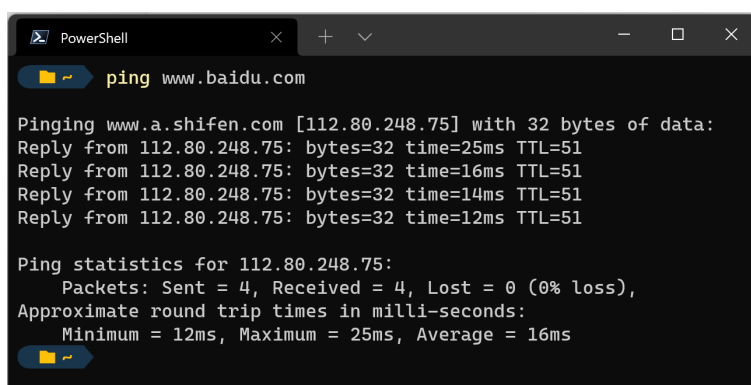
1. ping 使用 ICMP 协议 (TCP)。



traceroute 用 UDP 协议。



2. 16ms



3. 发送 244Mbps, 接收 241Mbps。

```
logcreative@ubuntu:~$ iperf3 -c 192.168.4.130 -p 7350 -i 1
Connecting to host 192.168.4.130, port 7350
[ 4] local 192.168.4.129 port 54836 connected to 192.168.4.130 port 7350
[ ID] Interval      Transfer    Bandwidth  Retr  Cwnd
[ 4] 0.00-1.01 sec  28.4 MBytes 235 Mbits/sec  0    1.19 MBytes
[ 4] 1.01-2.01 sec  32.0 MBytes 271 Mbits/sec  80    1.25 MBytes
[ 4] 2.01-3.02 sec  26.2 MBytes 218 Mbits/sec  1    913 KBytes
[ 4] 3.02-4.03 sec  32.5 MBytes 270 Mbits/sec  0   1817 KBytes
[ 4] 4.03-5.00 sec  32.2 MBytes 277 Mbits/sec  0    1.07 MBytes
[ 4] 5.00-6.01 sec  30.9 MBytes 258 Mbits/sec  0    1.14 MBytes
[ 4] 6.01-7.04 sec  33.5 MBytes 273 Mbits/sec  0    1.19 MBytes
[ 4] 7.04-8.03 sec  26.2 MBytes 221 Mbits/sec  0    1.23 MBytes
[ 4] 8.03-9.02 sec  26.2 MBytes 224 Mbits/sec  0    1.26 MBytes
[ 4] 9.02-10.01 sec 22.8 MBytes 193 Mbits/sec  8    1.26 MBytes
- - - - -
[ ID] Interval      Transfer    Bandwidth  Retr
[ 4] 0.00-10.01 sec 291 MBytes 244 Mbits/sec  89
[ 4] 0.00-10.01 sec 287 MBytes 241 Mbits/sec
- - - - -
iperf Done.
logcreative@ubuntu:~$
```

```
logcreative@ubuntu:~$ iperf3 -s -p 7350
Server listening on 7350
-----
Accepted connection from 192.168.4.129, port 54834
[ ID] Interval      Transfer    Bandwidth
[ 5] 0.00-1.00 sec  24.9 MBytes 209 Mbits/sec
[ 5] 1.00-2.00 sec  31.5 MBytes 264 Mbits/sec
[ 5] 2.00-3.00 sec  26.7 MBytes 224 Mbits/sec
[ 5] 3.00-4.00 sec  32.9 MBytes 276 Mbits/sec
[ 5] 4.00-5.00 sec  31.6 MBytes 265 Mbits/sec
[ 5] 5.00-6.00 sec  30.7 MBytes 258 Mbits/sec
[ 5] 6.00-7.00 sec  33.4 MBytes 280 Mbits/sec
[ 5] 7.00-8.01 sec  26.5 MBytes 221 Mbits/sec
[ 5] 8.01-9.00 sec  27.6 MBytes 227 Mbits/sec
[ 5] 9.00-10.00 sec 21.9 MBytes 183 Mbits/sec
[ 5] 10.00-10.01 sec 90.5 KBytes 77.1 Mbits/sec
- - - - -
[ ID] Interval      Transfer    Bandwidth
[ 5] 0.00-10.01 sec  0.00 Bytes  0.00 bits/sec
[ 5] 0.00-10.01 sec  287 MBytes 241 Mbits/sec
- - - - -
Server listening on 7350
^Z
[5]+  Stopped                  iperf3 -s -p 7350
logcreative@ubuntu:~$
```

4. 202.120.2.119

```
logcreative@ubuntu:~$ ping www.sjtu.edu.cn
PING www.sjtu.edu.cn (202.120.2.119) 56(84) bytes of data:
64 bytes from 202.120.2.119 (202.120.2.119): icmp_seq=1 ttl=250 time=74.9 ms
64 bytes from 202.120.2.119 (202.120.2.119): icmp_seq=3 ttl=250 time=177 ms
64 bytes from 202.120.2.119 (202.120.2.119): icmp_seq=4 ttl=250 time=130 ms
64 bytes from 202.120.2.119 (202.120.2.119): icmp_seq=6 ttl=250 time=2.80 ms
64 bytes from 202.120.2.119 (202.120.2.119): icmp_seq=7 ttl=250 time=3.94 ms
```

5. 文本 HTTP+TCP

Wi-Fi

文件(F) 编辑(E) 视图(V) 跳转(G) 捕获(C) 分析(A) 统计(S) 电话(Y) 无线(W) 工具(T) 帮助(H)

应用显示过滤器: <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
19	1.919881	192.168.1.100	182.254.104.16	TCP	66	27642 → 80 [SYN] Seq=0 Win=64240 Len=0 MSS=146
20	1.919881	192.168.1.100	182.254.104.16	TCP	66	27641 → 80 [SYN] Seq=0 Win=64240 Len=0 MSS=146
21	1.950915	121.51.140.150	192.168.1.100	TCP	54	80 → 28612 [ACK] Seq=1 Ack=130 Win=205 Len=0
22	1.958677	182.254.104.16	192.168.1.100	TCP	66	80 → 27641 [SYN, ACK] Seq=0 Ack=1 Win=14400 Le
23	1.958763	192.168.1.100	182.254.104.16	TCP	54	27641 → 80 [ACK] Seq=1 Ack=1 Win=66048 Len=0
24	1.958866	192.168.1.100	182.254.104.16	HTTP	219	GET /mmcrhead/e931ciblquC6apzggfmHQPC0q5oUmEst
25	1.958913	182.254.104.16	192.168.1.100	TCP	66	80 → 27642 [SYN, ACK] Seq=0 Ack=1 Win=14400 Le
26	1.958968	192.168.1.100	182.254.104.16	TCP	54	27642 → 80 [ACK] Seq=1 Ack=1 Win=66048 Len=0
27	1.959128	192.168.1.100	182.254.104.16	HTTP	218	GET /mmcrhead/SPAVrNaPeRGqFzfe3eFbThicBN195T
28	1.999889	182.254.104.16	192.168.1.100	TCP	54	80 → 27641 [ACK] Seq=1 Ack=166 Win=15488 Len=0
29	2.000070	182.254.104.16	192.168.1.100	TCP	54	80 → 27642 [ACK] Seq=1 Ack=166 Win=15488 Len=0

Transmission Control Protocol, Src Port: 27641, Dst Port: 80, Seq: 1, Ack: 1, Len: 165

Source Port: 27641
Destination Port: 80
[Stream index: 3]
[Conversation completeness: Complete, WITH_DATA (31)]
[TCP Segment Len: 165]
Sequence Number: 1 (relative sequence number)
Sequence Number (raw): 609078010
[Next Sequence Number: 166 (relative sequence number)]
Acknowledgment Number: 1 (relative ack number)
Acknowledgment number (raw): 4102459784
0101 = Header Length: 20 bytes (5)

0000 20 6b e7 b9 c3 b1 f0 6e 0b b7 c1 6b 08 00 45 00 k.....k..E.
0010 00 cd 9a 14 40 00 80 06 7e fb c0 a8 01 64 b6 fe ..@...~....d..
0020 68 10 6b f9 00 50 24 dd ca fa f4 86 91 88 50 18 h-k...PSM.....P..
0030 01 02 53 87 00 00 47 45 54 20 2f 6d 6d 63 72 68 ..S...GE T /mmcrh
0040 65 61 64 2f 65 39 33 69 63 69 62 6c 71 75 43 36 ead/e931 ciblquC6
0050 61 70 7a 67 67 66 6d 48 51 50 43 30 71 35 6f 55 apzggfmH QPC0q5oU
0060 6d 45 53 74 34 76 53 49 75 76 63 30 69 62 65 44 mEst4vSI uvc0ibeD
0070 57 6d 50 39 6e 30 6b 6b 66 43 6c 42 64 77 46 56 WmP9n0kk fClBdwFV
0080 7a 69 63 5a 76 48 4f 73 6a 6b 69 63 46 57 70 33 zicZvHQS jkicFWp3
0090 62 63 31 50 57 69 62 46 69 63 56 75 36 48 69 62 bc1PW1bF icVu6Hib
00a0 6d 49 4a 36 49 6f 34 73 53 47 44 42 2f 30 20 48 mIJ6Io4s SG08/0 H
00b0 54 54 50 2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 77 TTP/1.1. .Host: w
00c0 78 2e 71 6c 6f 67 6f 2e 63 6e 0d 0a 41 63 63 65 x.qlogo. cn..Acce
00d0 70 74 3a 20 2a 2f 2a 0d 0a 0d 0a ..pt: */*

Transmission Control Protocol (tcp), 20 byte(s) 分组: 78 · 已显示: 78 (100.0%) · 已丢弃: 0 (0.0%) 配置: Default

视频 UDP

Wi-Fi

文件(F) 编辑(E) 视图(V) 跳转(G) 捕获(C) 分析(A) 统计(S) 电话(Y) 无线(W) 工具(T) 帮助(H)

应用显示过滤器: <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
2972	18.978674	192.168.1.100	121.51.120.210	UDP	172	53378 → 8000 Len=130
2973	18.978872	121.51.120.210	192.168.1.100	UDP	163	8000 → 53378 Len=121
2974	18.980623	192.168.1.100	121.51.120.210	UDP	247	53378 → 8000 Len=205
2975	19.005283	121.51.120.210	192.168.1.100	UDP	219	8000 → 53378 Len=177
2976	19.022030	121.51.120.210	192.168.1.100	UDP	163	8000 → 53378 Len=121
2977	19.038174	121.51.120.210	192.168.1.100	UDP	1014	8000 → 53378 Len=972
2978	19.038341	121.51.120.210	192.168.1.100	UDP	1014	8000 → 53378 Len=972
2979	19.043174	192.168.1.100	121.51.120.210	UDP	847	53378 → 8000 Len=805
2980	19.043289	121.51.120.210	192.168.1.100	UDP	201	8000 → 53378 Len=159

Total Length: 41
Identification: 0xc58a (50570)
Flags: 0x40, Don't fragment
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 128
Protocol: TCP (6)
Header Checksum: 0x7e03 [validation disabled]
[Header checksum status: Unverified]
Source Address: 192.168.1.100
Destination Address: 203.208.41.100

0000 20 6b e7 b9 c3 b1 f0 6e 0b b7 c1 6b 08 00 45 00 k.....k..E.
0010 00 29 c5 8a 40 00 80 06 7e 03 c0 a8 01 64 cb d0 ..@...~....d..
0020 29 64 a4 dc 01 bb 15 9d d5 6d ca da 2e f1 50 10)d.....~m....P..
0030 00 fd 6c 67 00 00 00 ..lg..

wreshark_Wi-Fi2V2U90.pcapng 分组: 3198 · 已显示: 3198 (100.0%) 配置: Default