

廈門大學



信息学院软件工程系

《计算机网络》实验报告

题 目 实验三 RS232C 通信

班 级 软件工程 2018 级 1 班

姓 名 姜潇

学 号 24320182203214

实验时间 2020 年 3 月 20 日

2020 年 3 月 20 日

1 实验目的

实现 PCAP 库监听以太网的帧，输出日志

2 实验环境

c++,VS

3 实验结果

```

C:\Users\W\l\Desktop\WpdPack_4_1_2\WpdPack\Examples-pcap\Debug\x86\UDPDump.exe
. \Device\NPF_{F1EDB7D1-2289-4500-B03E-47974B4827DD} (Microsoft)
. \Device\NPF_{2BCCB6B6-1C8E-4C6A-A5C1-5DDB6B296E16} (VMware Virtual Ethernet Adapter)
. \Device\NPF_{F6EA6A89-C812-4B46-8501-E6FD1581593D} (Microsoft)
. \Device\NPF_{FAE1916D-4F72-4355-ABDC-5A7362811986} (Microsoft)
. \Device\NPF_{E83279EA-50F6-445E-A46C-15006020C273} (VMware Virtual Ethernet Adapter)
Enter the interface number (1-5):4

Listening on Microsoft...
3:33:28, 24-4E-7B-57-84-D0, 117.135.174.240, C4-9D-ED-A2-AE-8F, 192.168.8.174, 83
23:33:28] [C4-9D-ED-A2-AE-8F, 192.168.8.174] SEND 192 bytes out of limit
23:33:28] [24-4E-7B-57-84-D0, ] SEND 192 bytes out of limit
3:33:28, 24-4E-7B-57-84-D0, 111.30.159.62, C4-9D-ED-A2-AE-8F, 192.168.8.174, 393
3:33:28, C4-9D-ED-A2-AE-8F, 192.168.8.174, 24-4E-7B-57-84-D0, 111.30.159.62, 97
23:33:29] [C4-9D-ED-A2-AE-8F, 192.168.8.174] SEND 544 bytes out of limit
23:33:29] [24-4E-7B-57-84-D0, ] SEND 544 bytes out of limit
23:33:29] [24-4E-7B-57-84-D0, 117.135.174.240] SEND 185 bytes out of limit
23:33:29] [C4-9D-ED-A2-AE-8F, ] SEND 185 bytes out of limit
3:33:29, C4-9D-ED-A2-AE-8F, 192.168.8.174, 24-4E-7B-57-84-D0, 117.185.116.142, 164
3:33:29, C4-9D-ED-A2-AE-8F, 192.168.8.174, 24-4E-7B-57-84-D0, 192.168.8.1, 110
23:33:30] [24-4E-7B-57-84-D0, 111.30.159.62] SEND 393 bytes out of limit
23:33:30] [C4-9D-ED-A2-AE-8F, ] SEND 393 bytes out of limit
3:33:30, C4-9D-ED-A2-AE-8F, 192.168.8.174, 24-4E-7B-57-84-D0, 111.30.159.62, 97
23:33:31] [C4-9D-ED-A2-AE-8F, 192.168.8.174] SEND 544 bytes out of limit
23:33:31] [24-4E-7B-57-84-D0, ] SEND 544 bytes out of limit
23:33:31] [24-4E-7B-57-84-D0, 117.135.174.240] SEND 185 bytes out of limit
23:33:31] [C4-9D-ED-A2-AE-8F, ] SEND 185 bytes out of limit

```

4 Wiewshark 抓包后 pcap 文件形成

正在捕获 WLAN

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

dns

No.	Time	Source	Destination	Protocol	Length	Info
2	1.194918	192.168.8.174	8.8.8.8	DNS	73	Standard query 0x759c A f12.baidu.com
3	1.213957	192.168.8.1	192.168.8.174	DNS	118	Standard query response 0xd253 A t12.baidu.com CNAME simage.jomodns.com A 120.221.162.48
4	1.213964	192.168.8.1	192.168.8.174	DNS	118	Standard query response 0xd253 A t12.baidu.com CNAME simage.jomodns.com A 120.221.162.48
5	1.214194	192.168.8.1	192.168.8.174	DNS	118	Standard query response 0xa56e A t10.baidu.com CNAME simage.jomodns.com A 120.221.162.48
6	1.214199	192.168.8.1	192.168.8.174	DNS	118	Standard query response 0xa56e A t10.baidu.com CNAME simage.jomodns.com A 120.221.162.48
7	1.225458	8.8.8.8	192.168.8.174	DNS	118	Standard query response 0x759c A f12.baidu.com CNAME simage.jomodns.com A 120.221.162.48
20	20.065212	192.168.8.174	8.8.8.8	DNS	73	Standard query 0x759c A f12.baidu.com
21	20.083974	192.168.8.1	192.168.8.174	DNS	118	Standard query response 0xd253 A t12.baidu.com CNAME simage.jomodns.com A 120.221.162.48
22	20.083979	192.168.8.1	192.168.8.174	DNS	118	Standard query response 0xd253 A t12.baidu.com CNAME simage.jomodns.com A 120.221.162.48
23	20.084139	192.168.8.1	192.168.8.174	DNS	118	Standard query response 0xa56e A t10.baidu.com CNAME simage.jomodns.com A 120.221.162.48
24	20.084142	192.168.8.1	192.168.8.174	DNS	118	Standard query response 0xa56e A t10.baidu.com CNAME simage.jomodns.com A 120.221.162.48
25	20.104998	8.8.8.8	192.168.8.174	DNS	118	Standard query response 0x759c A f12.baidu.com CNAME simage.jomodns.com A 120.221.162.48

> Frame 2: 73 bytes on wire (584 bits), 73 bytes captured (584 bits) on interface \Device\NPF_{FAE1916D-4F72-4355-ABDC-5A7362811986}, id 0

> Ethernet II, Src: Microsoft_a2:ae:8f (c4:9d:ed:a2:ae:8f), Dst: JiansuX_07:84:d0 (24:4e:7b:57:84:d0)

> Internet Protocol Version 4, Src: 192.168.8.174, Dst: 8.8.8.8

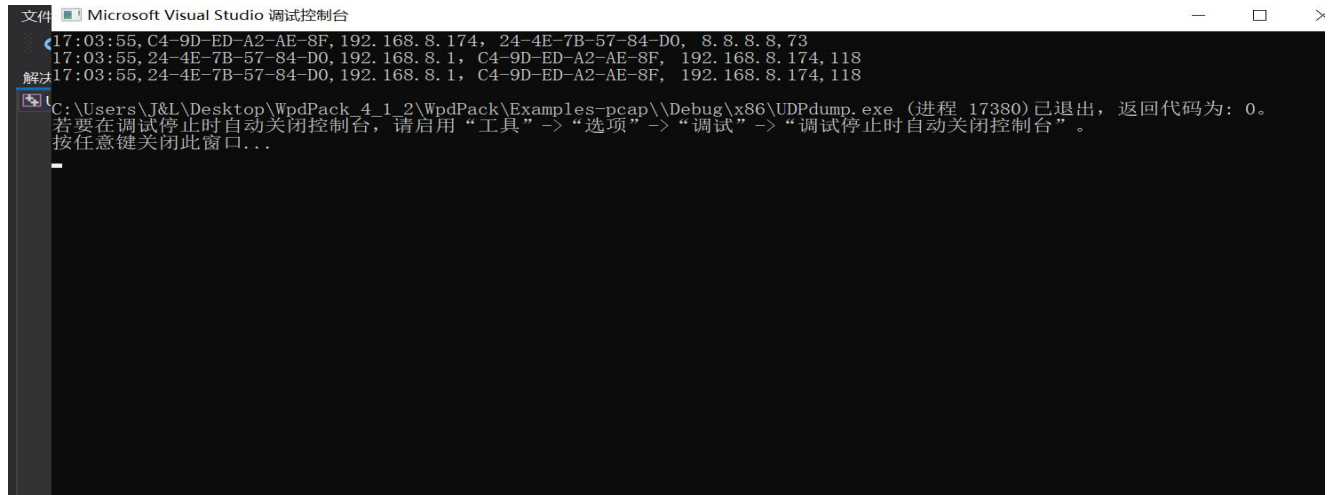
> User Datagram Protocol, Src Port: 59990, Dst Port: 53

> Domain Name System (query)

```

0000  24 4e 7b 57 84 d0 c4 9d  ed a2 ae 8f 08 00 45 00  $N(N-----E:
0010  00 3b 7c 7e 00 00 00 11  e4 cd c0 a8 08 ae 08 08  ;|~-----
0020  08 08 ea 56 00 35 00 27  50 67 75 9c 01 00 00 01  --V.5.' Pgu----
0030  00 00 00 00 00 03 66  31 32 05 62 61 69 64 75  -----f 12-baidu
0040  03 63 6f 6d 00 00 01 00  01                                     .com-----

```



```
文件 Microsoft Visual Studio 调试控制台
17:03:55, C4-9D-ED-A2-AE-8F, 192.168.8.174, 24-4E-7B-57-84-D0, 8.8.8.8, 73
17:03:55, 24-4E-7B-57-84-D0, 192.168.8.1, C4-9D-ED-A2-AE-8F, 192.168.8.174, 118
17:03:55, 24-4E-7B-57-84-D0, 192.168.8.1, C4-9D-ED-A2-AE-8F, 192.168.8.174, 118
C:\Users\J&L\Desktop\WpdPack_4_1_2\WpdPack\Examples-pcap\Debug\x86\UDPdump.exe (进程 17380) 已退出, 返回代码为: 0。
若要在调试停止时自动关闭控制台, 请启用“工具”->“选项”->“调试”->“调试停止时自动关闭控制台”。
按任意键关闭此窗口...
```

5

实验总结

学会从网上搜寻资料来解决遇到的问题，在原有代码的基础上进行修改来高效完成。