

## **Advanced computer networks Lab: Assignment #2**

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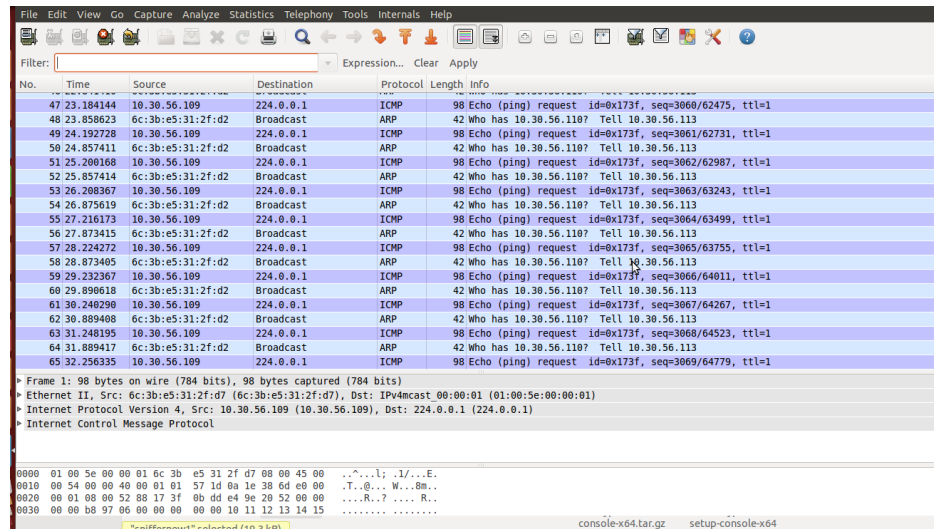
|           |   |
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## Problem 1

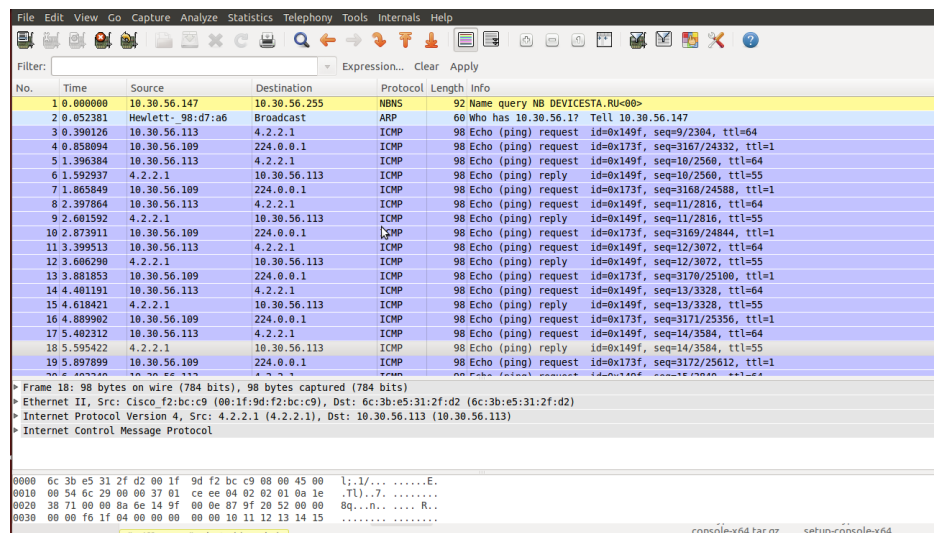
Install wire shark to sniffer capture

ans: 1)Installed wireshark

flushed the arp table by the command: `sudo ip -s -s neigh flush all` 2)ping ip address of another system's user. The packets are captured and saved the result in a file. ping 10.30.56.103



3)ping 4.2.2.1 The packets are captured and saved the result in a file



4)ping 224.0.0.1

| File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help                                     |           |              |              |          |        |                               |                                  |  |  |
|---|-----------|--------------|--------------|----------|--------|-------------------------------|----------------------------------|--|--|
| Filter: Expression... Clear Apply   |           |              |              |          |        |                               |                                  |  |  |
| No.   | Time      | Source       | Destination  | Protocol | Length | Info                          |                                  |  |  |
| 4   | 1.000965  | 10.30.56.113 | 4.2.2.1      | ICMP     | 98     | Echo (ping) request           | Id=0x149f, seq=43/11008, ttl=64  |  |  |
| 5   | 1.190838  | 4.2.2.1      | 10.30.56.113 | ICMP     | 98     | Echo (ping) reply             | Id=0x149f, seq=43/11008, ttl=55  |  |  |
| 6   | 1.692885  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3201/33936, ttl=1 |  |  |
| 7   | 2.002757  | 10.30.56.113 | 4.2.2.1      | ICMP     | 98     | Echo (ping) request           | Id=0x149f, seq=44/11264, ttl=64  |  |  |
| 8   | 2.305277  | 4.2.2.1      | 10.30.56.113 | ICMP     | 98     | Echo (ping) reply             | Id=0x149f, seq=44/11264, ttl=55  |  |  |
| 9   | 2.700890  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3202/33292, ttl=1 |  |  |
| 10  | 3.700860  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3203/33548, ttl=1 |  |  |
| 11  | 4.716712  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3204/33804, ttl=1 |  |  |
| 12  | 5.724773  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3205/34060, ttl=1 |  |  |
| 13  | 6.062489  | 10.30.56.113 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x14c0, seq=1/256, ttl=1      |  |  |
| 14  | 6.732677  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3206/34316, ttl=1 |  |  |
| 15  | 7.070856  | 10.30.56.113 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x14c0, seq=2/512, ttl=1      |  |  |
| 16  | 7.740840  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3207/34572, ttl=1 |  |  |
| 17  | 8.078899  | 10.30.56.113 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x14c0, seq=3/768, ttl=1      |  |  |
| 18  | 8.748649  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3208/34828, ttl=1 |  |  |
| 19  | 9.080894  | 10.30.56.113 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x14c0, seq=4/1024, ttl=1     |  |  |
| 20  | 9.756757  | 10.30.56.109 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x173f, seq=3209/35084, ttl=1 |  |  |
| 21  | 10.094893 | 10.30.56.113 | 224.0.0.1    | ICMP     | 98     | Echo (ping) request           | Id=0x14c0, seq=5/1280, ttl=1     |  |  |
| 22  | 10.371348 | 10.30.56.147 | 10.30.56.255 | NBNS     | 92     | Name query NB RESTLESZ.SU<00> |                                  |  |  |
| ▶ Frame 15: 98 bytes on wire (784 bits), 98 bytes captured (784 bits)   |           |              |              |          |        |                               |                                  |  |  |
| ▶ Ethernet II, Src: 6c:3b:e5:31:2f:d2 (6c:3b:e5:31:2f:d2), Dst: IPv4mcast 00:00:00:00:00:01 (01:00:5e:00:00:01) |           |              |              |          |        |                               |                                  |  |  |
| ▶ Internet Protocol Version 4, Src: 10.30.56.113 (10.30.56.113), Dst: 224.0.0.1 (224.0.0.1)                     |           |              |              |          |        |                               |                                  |  |  |
| ▶ Internet Control Message Protocol   |           |              |              |          |        |                               |                                  |  |  |
| 0000 01 00 5e 00 00 01 6c 3b e5 31 2f d2 08 00 45 00 .....lj .1/...E.   |           |              |              |          |        |                               |                                  |  |  |
| 0010 00 54 00 00 40 00 01 01 57 19 0a 1e 38 71 e0 00 .T..@... W...Bq..  |           |              |              |          |        |                               |                                  |  |  |
| 0020 00 01 08 00 f7 ba 14 c0 00 02 aa 9f 20 52 00 00 ..... R...   |           |              |              |          |        |                               |                                  |  |  |
| 0030 00 00 5c be 05 00 00 00 00 10 11 12 13 14 15 ...\\.....  |           |              |              |          |        |                               |                                  |  |  |
| [sniffersniff] call back (10.30.56.113)   |           |              |              |          |        |                               |                                  |  |  |
| console-x64.tar.gz  |           |              |              |          |        |                               |                                  |  |  |