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Computer Networks Lab 4 Work

Wireshark capture of ICMP traffic between 192.168.11.2 and 192.168.12.3.

Time	Source	Destination	Protocol	Length	Info
5.508467	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x77cc, seq=1/256, ttl=64 (reply in 6)
7.514459	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x79cc, seq=2/512, ttl=64 (reply in 7)
8.575982	192.168.11.2	192.168.12.3	ICMP	98	Echo (ping) reply id=0x77cc, seq=1/256, ttl=63 (request in
8.591203	192.168.11.2	192.168.12.3	ICMP	98	Echo (ping) reply id=0x79cc, seq=2/512, ttl=63 (request in
9.520464	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x7bcc, seq=3/768, ttl=64 (reply in 9)
9.580368	192.168.11.2	192.168.12.3	ICMP	98	Echo (ping) reply id=0x7bcc, seq=3/768, ttl=63 (request in
10.599119	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x7dcc, seq=4/1024, ttl=64 (reply in .
10.660972	192.168.11.2	192.168.12.3	ICMP	98	Echo (ping) reply id=0x7dcc, seq=4/1024, ttl=63 (request i
11.677660	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x79cc, seq=5/1280, ttl=64 (reply in

Frame 6: 98 bytes on wire (784 bits), 98 bytes captured (784 b) on interface 0 (eth0) ...

Ethernet II, Src: c2:01:4b:3c:00:00 (c2:01:4b:3c:00:00), Dst: c2:01:4b:3c:00:00 (c2:01:4b:3c:00:00)

Destination: Private_66:68:02 (00:50:79:66:68:02)

Source: c2:01:4b:3c:00:00 (c2:01:4b:3c:00:00)

Type: IPv4 (0x0800)

Internet Protocol Version 4, Src: 192.168.11.2, Dst: 192.168.12.3

Internet Control Message Protocol

Type: 0 (Echo (ping) reply)

Code: 0

Checksum: 0xb03e [correct]

Internet Control Message Protocol (icmp), 64 bytes

Packets: 16 · Displayed: 10 (62.5%)

Profile: Default

Wireshark capture of ICMP traffic between 192.168.12.3 and 192.168.11.2.

Time	Source	Destination	Protocol	Length	Info
4.508467	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x77cc, seq=1/256, ttl=64 (rep
5.7514459	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x79cc, seq=2/512, ttl=64 (rep
6.575982	192.168.11.2	192.168.12.3	ICMP	98	Echo (ping) reply id=0x77cc, seq=1/256, ttl=63 (req
7.591203	192.168.11.2	192.168.12.3	ICMP	98	Echo (ping) reply id=0x79cc, seq=2/512, ttl=63 (req
8.520464	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x7bcc, seq=3/768, ttl=64 (rep
9.580368	192.168.11.2	192.168.12.3	ICMP	98	Echo (ping) reply id=0x7bcc, seq=3/768, ttl=63 (req
10.599119	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x7dcc, seq=4/1024, ttl=64 (re
11.660972	192.168.11.2	192.168.12.3	ICMP	98	Echo (ping) reply id=0x7dcc, seq=4/1024, ttl=63 (re
12.677660	192.168.12.3	192.168.11.2	ICMP	98	Echo (ping) request id=0x79cc, seq=5/1280, ttl=64 (re

Frame 4: 98 bytes on wire (784 bits), 98 bytes captured (784 b) on interface 0 (eth0) ...

Ethernet II, Src: Private_66:68:02 (00:50:79:66:68:02), Dst: c2:01:4b:3c:00:00 (c2:01:4b:3c:00:00)

Destination: Private_66:68:02 (00:50:79:66:68:02)

Source: Private_66:68:02 (00:50:79:66:68:02)

Type: IPv4 (0x0800)

Internet Protocol Version 4, Src: 192.168.12.3, Dst: 192.168.11.2

Internet Control Message Protocol

Type: 8 (Echo (ping) request)

Code: 0

Checksum: 0xa83e [correct]

Sequence Number (big endian representation) (icmp.seq), 2 bytes

Packets: 15 · Displayed: 10 (66.7%)

Profile: Default

Lab3_Work - GNS3

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Topology Sum...

Node	Con
PC1	telnet
PC2	telnet
PC3	telnet
PC4	telnet
R1	telnet
Switch1	none
Switch2	none
Switch3	none

Servers Summary

- DESKTOP-80...

PC4 PC3 PC2 R1

```
PC3> ping 192.168.11.2
192.168.11.2 icmp_seq=1 timeout
192.168.11.2 icmp_seq=2 timeout
64 bytes from 192.168.11.2: icmp_seq=3 ttl=63 time=61.969 ms
64 bytes from 192.168.11.2: icmp_seq=4 ttl=63 time=62.921 ms
64 bytes from 192.168.11.2: icmp_seq=5 ttl=63 time=61.954 ms

PC1> ping 192.168.11.2
192.168.11.2 icmp_seq=1 timeout
192.168.11.2 icmp_seq=2 timeout
64 bytes from 192.168.11.2: icmp_seq=3 ttl=63 time=60.223 ms
64 bytes from 192.168.11.2: icmp_seq=4 ttl=63 time=62.158 ms
64 bytes from 192.168.11.2: icmp_seq=5 ttl=63 time=62.588 ms

PC3>
```

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PC4 ip 192.168.13.2/24 192.168.13.1
Checking for duplicate address...
PC3 : 192.168.13.2 255.255.255.252 gateway 192.168.13.1
PC4 save
Saving startup configuration to startup.vpc
done
PC4> ping 192.168.11.1
host (192.168.13.1) not reachable
PC4> ping 192.168.11.2
host (192.168.13.1) not reachable
PC4> ip 192.168.13.1/24 192.168.13.2
Checking for duplicate address...
PC3 : 192.168.13.1 255.255.255.252 gateway 192.168.13.2
PC4> ping 192.168.11.2
192.168.11.2 icmp_seq=1 timeout
192.168.11.2 icmp_seq=2 timeout
64 bytes from 192.168.11.2 icmp_seq=3 ttl=63 time=62.510 ms
64 bytes from 192.168.11.2 icmp_seq=4 ttl=63 time=61.140 ms
64 bytes from 192.168.11.2 icmp_seq=5 ttl=63 time=60.803 ms
PC4> ping 192.168.11.2
64 bytes from 192.168.11.2 icmp_seq=1 ttl=63 time=60.643 ms
64 bytes from 192.168.11.2 icmp_seq=2 ttl=63 time=60.920 ms
64 bytes from 192.168.11.2 icmp_seq=3 ttl=63 time=60.959 ms
64 bytes from 192.168.11.2 icmp_seq=4 ttl=63 time=62.360 ms
64 bytes from 192.168.11.2 icmp_seq=5 ttl=63 time=60.812 ms
PC4> ping 192.168.12.5
192.168.12.5 icmp_seq=1 timeout
192.168.12.5 icmp_seq=2 timeout
192.168.12.5 icmp_seq=3 timeout
192.168.12.5 icmp_seq=4 timeout
192.168.12.5 icmp_seq=5 timeout
PC4> ping 192.168.12.5
192.168.12.5 icmp_seq=1 timeout
192.168.12.5 icmp_seq=2 timeout
192.168.12.5 icmp_seq=3 timeout
192.168.12.5 icmp_seq=4 timeout
192.168.12.5 icmp_seq=5 timeout
PC4> ping 192.168.15.5
*192.168.13.2 icmp_seq=1 ttl=255 time=30.430 ms (ICMP type=3, code=1, Destination host unreachable)
*192.168.13.2 icmp_seq=2 ttl=255 time=30.416 ms (ICMP type=3, code=1, Destination host unreachable)
*192.168.13.2 icmp_seq=3 ttl=255 time=31.386 ms (ICMP type=3, code=1, Destination host unreachable)
*192.168.13.2 icmp_seq=4 ttl=255 time=30.789 ms (ICMP type=3, code=1, Destination host unreachable)
*192.168.13.2 icmp_seq=5 ttl=255 time=31.096 ms (ICMP type=3, code=1, Destination host unreachable)
PC4> save
Saving startup configuration to startup.vpc
done
PC4>

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* - [Switch3 Ethernet1 to PC4 Ethernet0]

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

No.	Time	Source	Destination	Protocol	Length	Info
34	397.839514	192.168.13.1	192.168.15.5	ICMP	98	Echo (ping) request id=0xc9cf, seq=2/512, ttl=64 (no
35	397.869603	192.168.13.2	192.168.13.1	ICMP	70	Destination unreachable (Host unreachable)
36	398.893757	192.168.13.1	192.168.15.5	ICMP	98	Echo (ping) request id=0xcacf, seq=3/768, ttl=64 (no
37	398.924775	192.168.13.2	192.168.13.1	ICMP	70	Destination unreachable (Host unreachable)
38	399.946999	192.168.13.1	192.168.15.5	ICMP	98	Echo (ping) request id=0xcbcf, seq=4/1024, ttl=64 (n
39	399.977453	192.168.13.2	192.168.13.1	ICMP	70	Destination unreachable (Host unreachable)
40	400.999916	192.168.13.1	192.168.15.5	ICMP	98	Echo (ping) request id=0xcccf, seq=5/1280, ttl=64 (n
41	401.031208	192.168.13.2	192.168.13.1	ICMP	70	Destination unreachable (Host unreachable)

> Frame 35: 70 bytes on wire (560 bits), 70 bytes captured (560) on interface 0
Ethernet II, Src: c2:01:4b:3c:00:10 (c2:01:4b:3c:00:10), Dst: c2:01:4b:3c:00:10 (c2:01:4b:3c:00:10)
Destination: Private_66:68:03 (00:50:79:66:68:03)
Source: c2:01:4b:3c:00:10 (c2:01:4b:3c:00:10)
Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 192.168.13.2, Dst: 192.168.13.1
Internet Control Message Protocol
Type: 3 (Destination unreachable)
Code: 1 (Host unreachable)
Checksum: 0xd4f2 [correct]

0000 00 50 79 66 68 03 c2 01 4b 3c 00 10 08 00 45 00 .Pyfh...
0010 00 38 00 01 00 00 ff 01 20 70 c0 a8 0d 02 c0 a8 .8.....
0020 0d 01 03 01 d4 f2 00 00 00 00 45 00 00 54 cf c9
0030 00 00 3f 01 0e 89 c0 a8 0d 01 c0 a8 0f 05 08 00 ..?.....
0040 56 3a c9 cf 00 02 V:....

wireshark -5PMDJ2.oacaona Packets: 41 • Disposed: 41 (100.0%) Profile: Default

Wireshark capture window showing a list of ICMP Echo (ping) requests and replies. The list includes columns for No., Time, Source, Destination, Protocol, Length, and Info. The info column shows details like 'Echo (ping) request id=0xc9cf, seq=2/512, ttl=64 (no response yet)' and 'Destination unreachable (Host unreachable)'.

No.	Time	Source	Destination	Protocol	Length	Info
34	397.839514	192.168.13.1	192.168.15.5	ICMP	98	Echo (ping) request id=0xc9cf, seq=2/512, ttl=64 (no response yet)
35	397.869603	192.168.13.2	192.168.13.1	ICMP	70	Destination unreachable (Host unreachable)
36	398.893757	192.168.13.1	192.168.15.5	ICMP	98	Echo (ping) request id=0xcacf, seq=3/768, ttl=64 (no response yet)
37	398.924775	192.168.13.2	192.168.13.1	ICMP	70	Destination unreachable (Host unreachable)
38	399.946999	192.168.13.1	192.168.15.5	ICMP	98	Echo (ping) request id=0xcbcf, seq=4/1024, ttl=64 (no response yet)
39	399.977453	192.168.13.2	192.168.13.1	ICMP	70	Destination unreachable (Host unreachable)
40	400.999916	192.168.13.1	192.168.15.5	ICMP	98	Echo (ping) request id=0xcccf, seq=5/1280, ttl=64 (no response yet)
41	401.031208	192.168.13.2	192.168.13.1	ICMP	70	Destination unreachable (Host unreachable)

Frame 2: 98 bytes on wire (784 bits), 98 bytes captured (784 bits) on interface 0, 1 packet captured (1 packets) on interface 0, 0 packets dropped by kernel. Ethernet II, Src: c2:01:4b:3c:00:10 (c2:01:4b:3c:00:10), Dst: 08:00:5e:00:00:00 (08:00:5e:00:00:00). Internet Protocol Version 4, Src: 192.168.11.2, Dst: 192.168.15.5. Internet Control Message Protocol. Type: 0 (Echo (ping) reply). Code: 0. Checksum: 0xec3c [correct].

Wireshark capture window showing a list of ICMP Echo (ping) requests and replies. The list includes columns for Time, Source, Destination, Protocol, Length, and Info. The info column shows details like 'Echo (ping) request id=0x3bce, seq=1/256, ttl=64 (reply in 0.000000s)' and 'Echo (ping) reply id=0x3bce, seq=1/256, ttl=63 (request id=0x3bce, seq=1/256, ttl=64)'.

Time	Source	Destination	Protocol	Length	Info
1 0.000000	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3bce, seq=1/256, ttl=64 (reply in 0.000000s)
2 0.060281	192.168.11.2	192.168.13.1	ICMP	98	Echo (ping) reply id=0x3bce, seq=1/256, ttl=63 (request id=0x3bce, seq=1/256, ttl=64)
3 1.077002	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3cce, seq=2/512, ttl=64 (reply in 0.000000s)
4 1.122433	192.168.11.2	192.168.13.1	ICMP	98	Echo (ping) reply id=0x3cce, seq=2/512, ttl=63 (request id=0x3cce, seq=2/512, ttl=64)
5 2.152135	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3dce, seq=3/768, ttl=64 (reply in 0.000000s)
6 2.212833	192.168.11.2	192.168.13.1	ICMP	98	Echo (ping) reply id=0x3dce, seq=3/768, ttl=63 (request id=0x3dce, seq=3/768, ttl=64)
7 3.230049	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3ece, seq=4/1024, ttl=64 (reply in 0.000000s)
8 3.291875	192.168.11.2	192.168.13.1	ICMP	98	Echo (ping) reply id=0x3ece, seq=4/1024, ttl=63 (request id=0x3ece, seq=4/1024, ttl=64)
9 4.308733	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3fce, seq=5/1280, ttl=64 (reply in 0.000000s)

Frame 2: 98 bytes on wire (784 bits), 98 bytes captured (784 bits) on interface 0, 1 packet captured (1 packets) on interface 0, 0 packets dropped by kernel. Ethernet II, Src: c2:01:4b:3c:00:10 (c2:01:4b:3c:00:10), Dst: 08:00:5e:00:00:00 (08:00:5e:00:00:00). Internet Protocol Version 4, Src: 192.168.11.2, Dst: 192.168.15.5. Internet Control Message Protocol. Type: 0 (Echo (ping) reply). Code: 0. Checksum: 0xec3c [correct].

Wireshark interface showing a packet capture of ICMP Echo (ping) requests and replies between 192.168.13.1 and 192.168.11.2.

Time	Source	Destination	Protocol	Length	Info
1 0.000000	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3bce, seq=1/256, ttl=64 (reply in 64ms)
2 0.060281	192.168.11.2	192.168.13.1	ICMP	98	Echo (ping) reply id=0x3bce, seq=1/256, ttl=63 (request id=0x3bce, seq=1/256, ttl=64)
3 1.077002	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3cce, seq=2/512, ttl=64 (reply in 64ms)
4 1.122433	192.168.11.2	192.168.13.1	ICMP	98	Echo (ping) reply id=0x3cce, seq=2/512, ttl=63 (request id=0x3cce, seq=2/512, ttl=64)
5 2.152135	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3dce, seq=3/768, ttl=64 (reply in 64ms)
6 2.212833	192.168.11.2	192.168.13.1	ICMP	98	Echo (ping) reply id=0x3dce, seq=3/768, ttl=63 (request id=0x3dce, seq=3/768, ttl=64)
7 3.230049	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3ece, seq=4/1024, ttl=64 (reply in 64ms)
8 3.291875	192.168.11.2	192.168.13.1	ICMP	98	Echo (ping) reply id=0x3ece, seq=4/1024, ttl=63 (request id=0x3ece, seq=4/1024, ttl=64)
9 4.308732	192.168.13.1	192.168.11.2	ICMP	98	Echo (ping) request id=0x3fce, seq=5/1280, ttl=64 (reply in 64ms)

Frame 1: 98 bytes on wire (784 bits), 98 bytes captured (784 bits) on interface 0

- Ethernet II, Src: Private_66:68:03 (00:50:79:66:68:03), Dst: c2:01:4b:3c:00:10 (c2:01:4b:3c:00:10)
 - Destination: c2:01:4b:3c:00:10 (c2:01:4b:3c:00:10)
 - Source: Private_66:68:03 (00:50:79:66:68:03)
 - Type: IPv4 (0x0800)
- Internet Protocol Version 4, Src: 192.168.13.1, Dst: 192.168.11.2
 - Source: 192.168.13.1
 - Destination: 192.168.11.2
 - Protocol: ICMP (1)
 - Length: 98
 - Checksum: 0xe43c [correct]
- Internet Control Message Protocol
 - Type: 8 (Echo (ping) request)
 - Code: 0
 - Checksum: 0xe43c [correct]

Packet details for Frame 1:

```

0000  c2 01 4b 3c 00 10 00 50 79 66 68 03 08 00 45 00  ..K<...F
0010  00 54 ce 3b 00 00 40 01 13 1a c0 a8 0d 01 c0 a8  -T;...@
0020  0b 02 08 00 e4 3c 3b ce 00 01 08 09 0a 0b 0c 0d  .....<;
0030  0e 0f 10 11 12 13 14 15 16 17 18 19 1a 1b 1c 1d  .....
0040  1e 1f 20 21 22 23 24 25 26 27 28 29 2a 2b 2c 2d  ..!""#$%
0050  2e 2f 30 31 32 33 34 35 36 37 38 39 3a 3b 3c 3d  ./01234!
0060  3e 3f                                     >?

```

Wireshark -SPMDJ2.pcapng | Packets: 13 · Displayed: 10 (76.9%) | Profile: Default