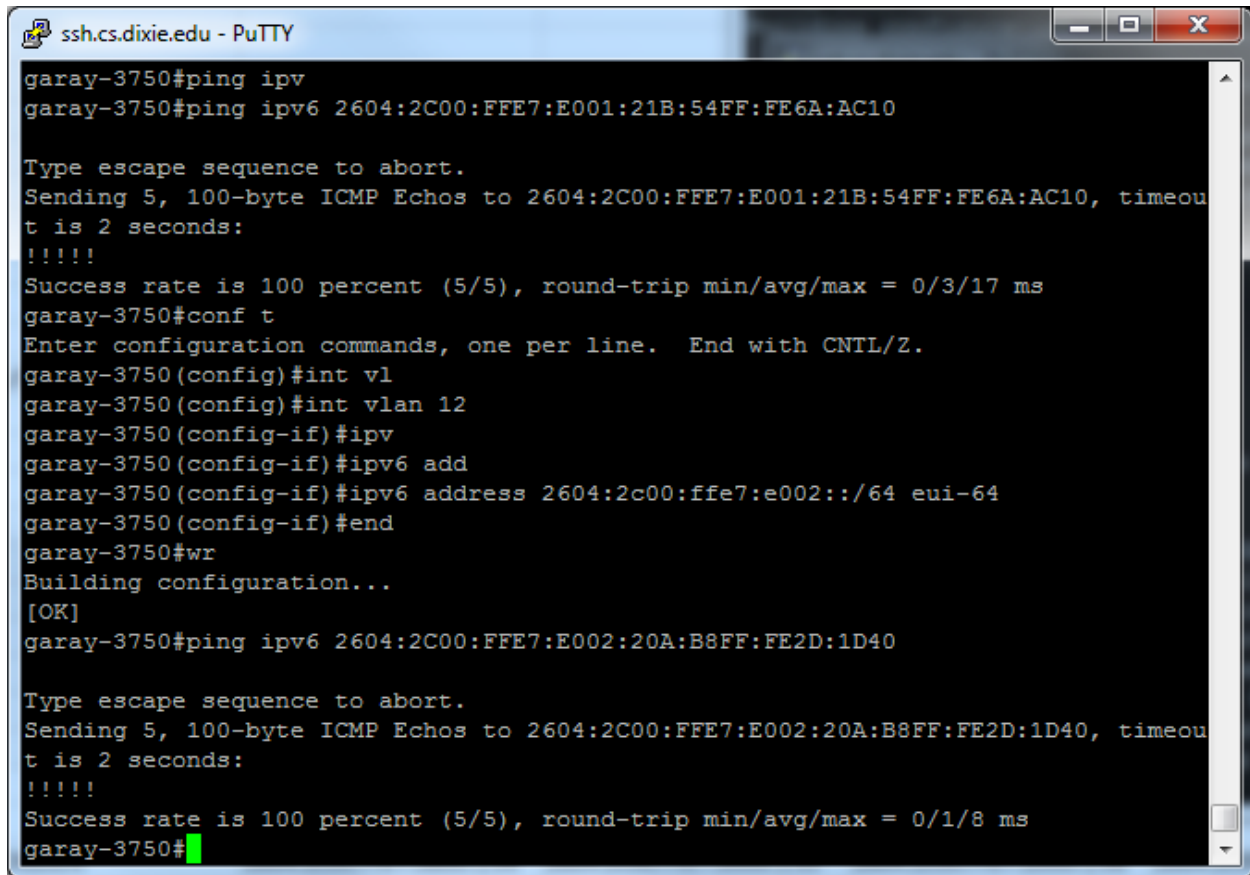


3750 ping to 2800-1

```
ssh.cs.dixie.edu - PuTTY
Joined group address(es):
  FF02::1
  FF02::2
  FF02::1:FF75:65C3
MTU is 1500 bytes
ICMP error messages limited to one every 100 milliseconds
ICMP redirects are enabled
ICMP unreachables are sent
Output features: Check hwidb
ND DAD is enabled, number of DAD attempts: 1
ND reachable time is 30000 milliseconds (using 30000)
ND advertised reachable time is 0 (unspecified)
ND advertised retransmit interval is 0 (unspecified)
ND router advertisements are sent every 200 seconds
ND router advertisements live for 1800 seconds
ND advertised default router preference is Medium
Hosts use stateless autoconfig for addresses.
garay-3750#ping ip
garay-3750#ping ipv
garay-3750#ping ipv6 2604:2C00:FFE7:E001:21B:54FF:FE6A:AC10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2604:2C00:FFE7:E001:21B:54FF:FE6A:AC10, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/3/17 ms
garay-3750#
```

3750 ping to 2800-2

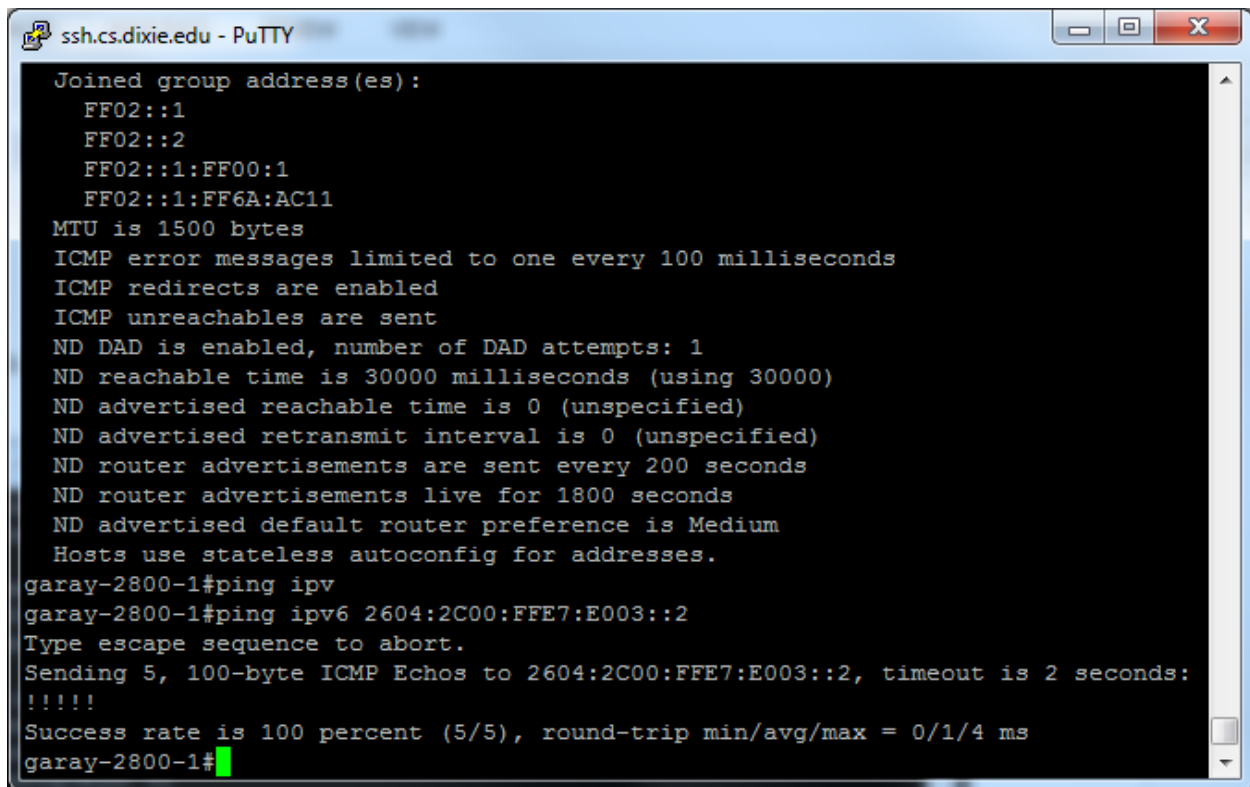


```
ssh.cs.dixie.edu - PuTTY
garay-3750#ping ipv
garay-3750#ping ipv6 2604:2C00:FFE7:E001:21B:54FF:FE6A:AC10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2604:2C00:FFE7:E001:21B:54FF:FE6A:AC10, timeou
t is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/3/17 ms
garay-3750#conf t
Enter configuration commands, one per line. End with CNTL/Z.
garay-3750(config)#int vl
garay-3750(config)#int vlan 12
garay-3750(config-if)#ipv
garay-3750(config-if)#ipv6 add
garay-3750(config-if)#ipv6 address 2604:2c00:ffe7:e002::/64 eui-64
garay-3750(config-if)#end
garay-3750#wr
Building configuration...
[OK]
garay-3750#ping ipv6 2604:2C00:FFE7:E002:20A:B8FF:FE2D:1D40

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2604:2C00:FFE7:E002:20A:B8FF:FE2D:1D40, timeou
t is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/8 ms
garay-3750#
```

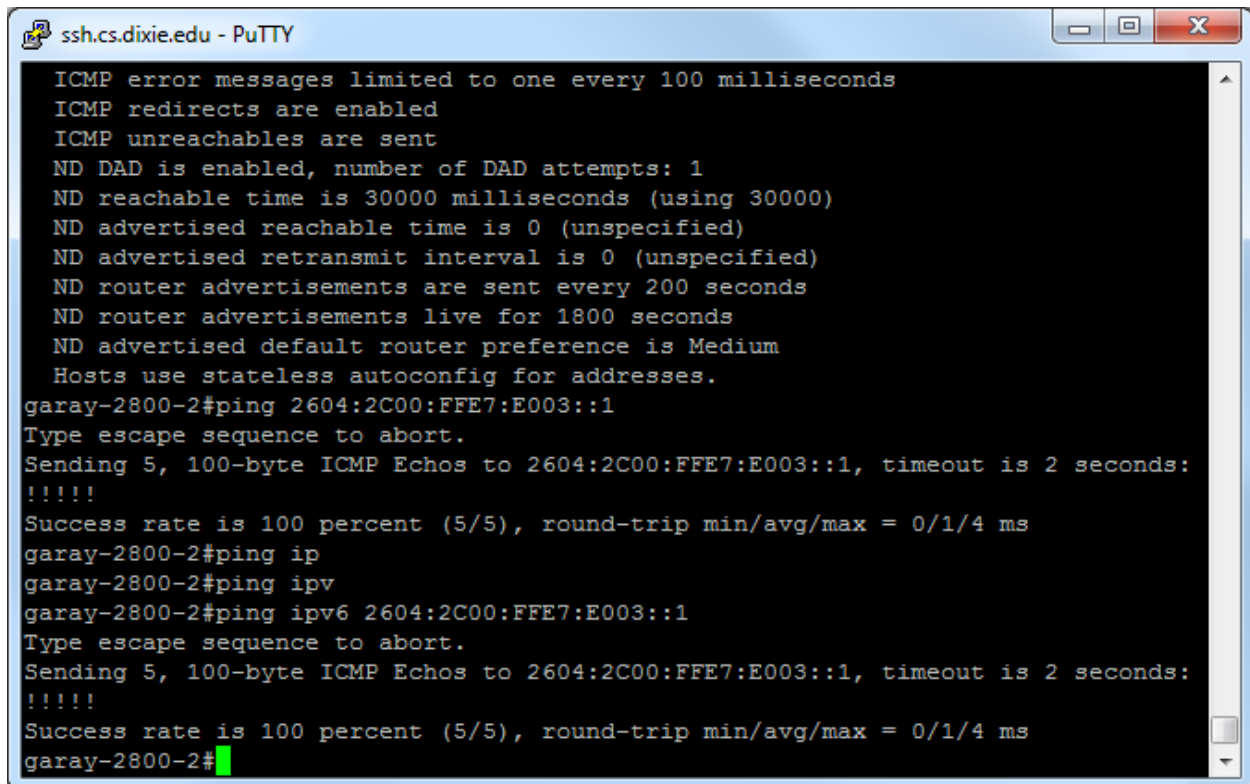
2800-1 to 2800-2



```
ssh.cs.dixie.edu - PuTTY

Joined group address(es):
  FF02::1
  FF02::2
  FF02::1:FF00:1
  FF02::1:FF6A:AC11
MTU is 1500 bytes
ICMP error messages limited to one every 100 milliseconds
ICMP redirects are enabled
ICMP unreachable are sent
ND DAD is enabled, number of DAD attempts: 1
ND reachable time is 30000 milliseconds (using 30000)
ND advertised reachable time is 0 (unspecified)
ND advertised retransmit interval is 0 (unspecified)
ND router advertisements are sent every 200 seconds
ND router advertisements live for 1800 seconds
ND advertised default router preference is Medium
Hosts use stateless autoconfig for addresses.
garay-2800-1#ping ipv
garay-2800-1#ping ipv6 2604:2C00:FFE7:E003::2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2604:2C00:FFE7:E003::2, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/4 ms
garay-2800-1#
```

2800-2 to 2800-1



```
ssh.cs.dixie.edu - PuTTY
ICMP error messages limited to one every 100 milliseconds
ICMP redirects are enabled
ICMP unreachable are sent
ND DAD is enabled, number of DAD attempts: 1
ND reachable time is 30000 milliseconds (using 30000)
ND advertised reachable time is 0 (unspecified)
ND advertised retransmit interval is 0 (unspecified)
ND router advertisements are sent every 200 seconds
ND router advertisements live for 1800 seconds
ND advertised default router preference is Medium
Hosts use stateless autoconfig for addresses.
garay-2800-2#ping 2604:2C00:FFE7:E003::1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2604:2C00:FFE7:E003::1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/4 ms
garay-2800-2#ping ip
garay-2800-2#ping ipv
garay-2800-2#ping ipv6 2604:2C00:FFE7:E003::1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2604:2C00:FFE7:E003::1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/4 ms
garay-2800-2#
```

VM1 to 2800-1

```
QEMU (rgaray-vm1) - TightVNC Viewer
"interfaces" 18L, 428C written
root@ubuntu:/etc/network# ifdown eth0 ; ifup eth0
root@ubuntu:/etc/network# ifconfig
eth0      Link encap:Ethernet  HWaddr 52:54:00:08:00:ee
          inet addr:74.123.12.242  Bcast:74.123.12.243  Mask:255.255.255.252
          inet6 addr: 2604:2c00:ffe7:e202:79a5:dfd2:5c97:d37a/64 Scope:Global
          inet6 addr: 2604:2c00:ffe7:e202:5054:ff:fe08:ee/64 Scope:Global
          inet6 addr: fe80::5054:ff:fe08:ee/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1091950 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1499293 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:168131215 (168.1 MB)  TX bytes:276601530 (276.6 MB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:9 errors:0 dropped:0 overruns:0 frame:0
          TX packets:9 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:1332 (1.3 KB)  TX bytes:1332 (1.3 KB)

root@ubuntu:/etc/network# ping 2604:2c00:ffe7:e202::1
ping: unknown host 2604:2c00:ffe7:e202::1
root@ubuntu:/etc/network# ping6 2604:2c00:ffe7:e202::1
PING 2604:2c00:ffe7:e202::1(2604:2c00:ffe7:e202::1) 56 data bytes
64 bytes from 2604:2c00:ffe7:e202::1: icmp_seq=1 ttl=64 time=4.41 ms
64 bytes from 2604:2c00:ffe7:e202::1: icmp_seq=2 ttl=64 time=1.54 ms
64 bytes from 2604:2c00:ffe7:e202::1: icmp_seq=3 ttl=64 time=1.18 ms
64 bytes from 2604:2c00:ffe7:e202::1: icmp_seq=4 ttl=64 time=1.32 ms
64 bytes from 2604:2c00:ffe7:e202::1: icmp_seq=5 ttl=64 time=1.21 ms
64 bytes from 2604:2c00:ffe7:e202::1: icmp_seq=6 ttl=64 time=1.13 ms
^C
--- 2604:2c00:ffe7:e202::1 ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5008ms
rtt min/avg/max/mdev = 1.139/1.802/4.419/1.178 ms
root@ubuntu:/etc/network#
```

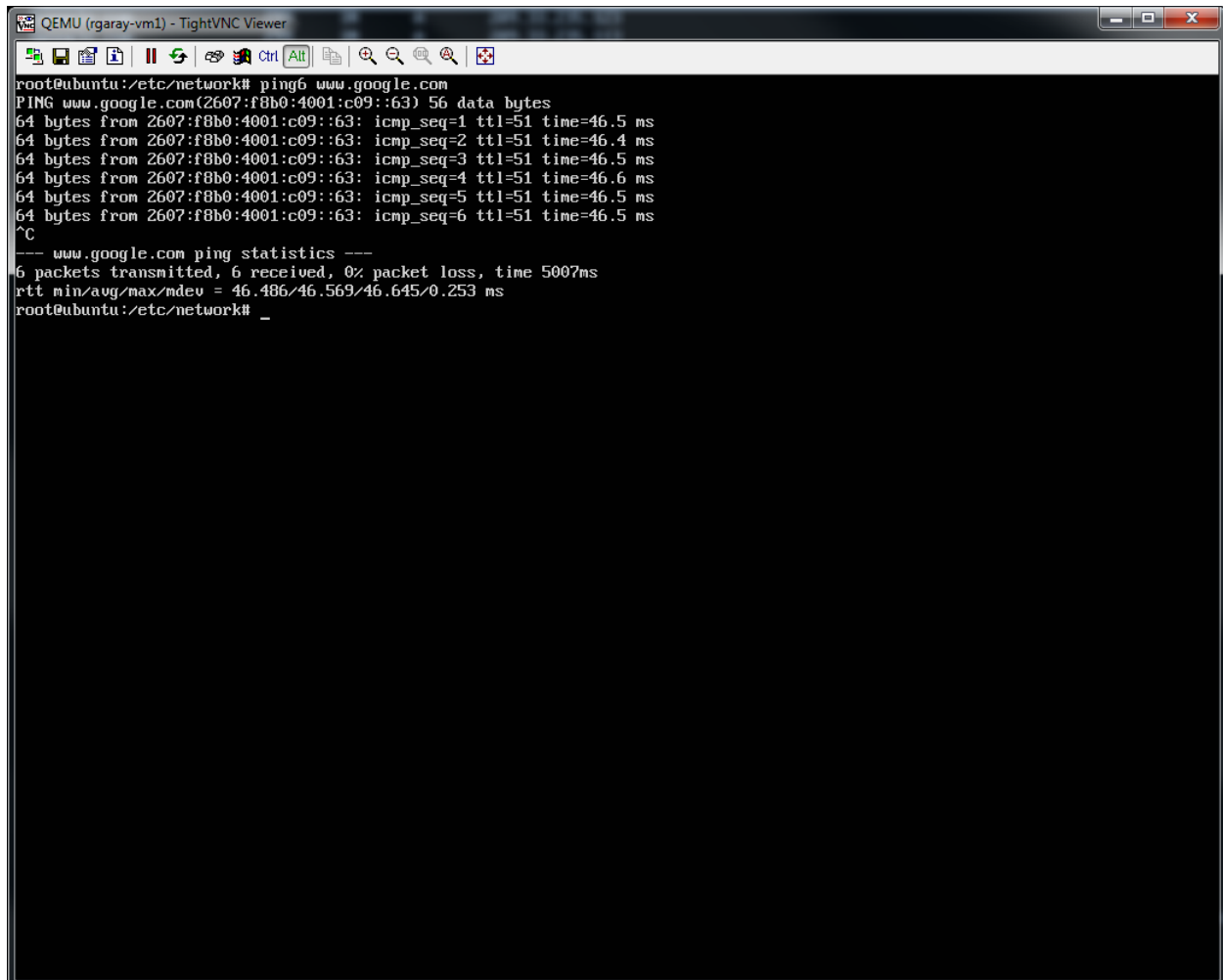
VM 2 to 2800-2

```
QEMU (rgaray-vm2) - TightVNC Viewer
"interfaces" 17L, 425C written
root@ubuntu:/etc/network# ifdown eth0 ; ifup eth0
root@ubuntu:/etc/network# ifconfig
eth0      Link encap:Ethernet  HWaddr 52:54:00:08:00:ef
          inet addr:74.123.12.238  Bcast:74.123.12.239  Mask:255.255.255.252
          inet6 addr: 2604:2c00:ffe7:e402:5054:ff:fe08:ef/64 Scope:Global
          inet6 addr: fe80::5054:ff:fe08:ef/64 Scope:Link
          inet6 addr: 2604:2c00:ffe7:e402:cd59:bcb2:5ce8:6306/64 Scope:Global
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:994479 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1324448 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:152635737 (152.6 MB)  TX bytes:247429686 (247.4 MB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:24 errors:0 dropped:0 overruns:0 frame:0
          TX packets:24 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:793332 (793.3 KB)  TX bytes:793332 (793.3 KB)

root@ubuntu:/etc/network# ping6 2604:2c00:ffe7:e402::1
PING 2604:2c00:ffe7:e402::1(2604:2c00:ffe7:e402::1) 56 data bytes
64 bytes from 2604:2c00:ffe7:e402::1: icmp_seq=1 ttl=64 time=6.90 ms
64 bytes from 2604:2c00:ffe7:e402::1: icmp_seq=2 ttl=64 time=1.20 ms
64 bytes from 2604:2c00:ffe7:e402::1: icmp_seq=3 ttl=64 time=1.20 ms
64 bytes from 2604:2c00:ffe7:e402::1: icmp_seq=4 ttl=64 time=1.22 ms
64 bytes from 2604:2c00:ffe7:e402::1: icmp_seq=5 ttl=64 time=1.16 ms
^C
--- 2604:2c00:ffe7:e402::1 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4005ms
rtt min/avg/max/mdev = 1.166/2.341/6.908/2.283 ms
root@ubuntu:/etc/network# _
```

VM 1 ping6 google



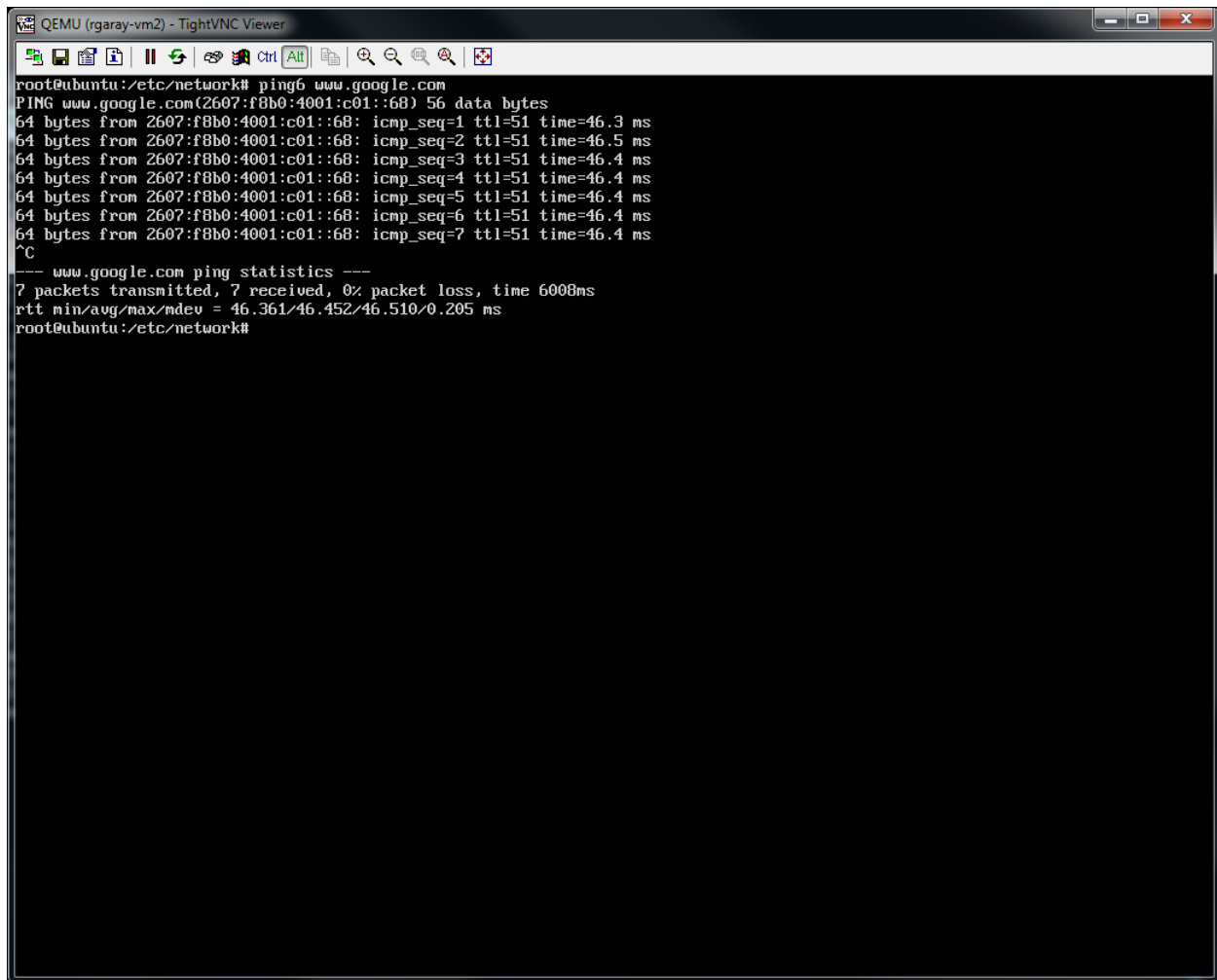
The image shows a screenshot of a QEMU VM terminal window titled "QEMU (rgaray-vm1) - TightVNC Viewer". The terminal displays the output of a ping6 command to www.google.com. The output shows six successful ping requests, each with a 56-byte data size and a time of approximately 46.5 ms. The statistics section indicates that 6 packets were transmitted and received with 0% packet loss and a total time of 5007ms. The round-trip time (rtt) statistics are also displayed.

```
root@ubuntu:/etc/network# ping6 www.google.com
PING www.google.com(2607:f8b0:4001:c09::63) 56 data bytes
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=1 ttl=51 time=46.5 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=2 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=3 ttl=51 time=46.5 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=4 ttl=51 time=46.6 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=5 ttl=51 time=46.5 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=6 ttl=51 time=46.5 ms
^C
--- www.google.com ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5007ms
rtt min/avg/max/mdev = 46.486/46.569/46.645/0.253 ms
root@ubuntu:/etc/network# _
```

VM 1 tracepath6 google

```
QEMU (rgaray-vm1) - TightVNC Viewer
root@ubuntu:/etc/network# ping6 www.google.com
PING www.google.com(2607:f8b0:4001:c09::63) 56 data bytes
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=1 ttl=51 time=46.5 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=2 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=3 ttl=51 time=46.5 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=4 ttl=51 time=46.6 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=5 ttl=51 time=46.5 ms
64 bytes from 2607:f8b0:4001:c09::63: icmp_seq=6 ttl=51 time=46.5 ms
^C
--- www.google.com ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5007ms
rtt min/avg/max/mdev = 46.486/46.569/46.645/0.253 ms
root@ubuntu:/etc/network# tracepath www.google.com
1?: [LOCALHOST] pmtu 1500
1: ^C
root@ubuntu:/etc/network# tracepath6 www.google.com
1?: [LOCALHOST] 0.032ms pmtu 1500
1: 2604:2c00:ffe7:e202::1 2.178ms
1: 2604:2c00:ffe7:e202::1 2.038ms
2: 2604:2c00:ffe7:e001:211:20ff:fe75:65c1 2.525ms
3: 2604:2c00:ffd4:117::1 4.082ms
4: 2604:2c00:ffff:ffe8::1 4.709ms
5: 2604:2c00:ffff:ff81::1 3.388ms
6: 2604:2c00:ffff:ffd4::1 3.534ms
7: 2604:2c00:ffff:ffe6::1 3.133ms
8: no reply
^C
root@ubuntu:/etc/network#
```


VM 2 ping6 google



The image shows a screenshot of a QEMU VM terminal window titled "QEMU (rgaray-vm2) - TightVNC Viewer". The terminal displays the output of a ping6 command to www.google.com. The output shows 7 successful pings with a TTL of 51 and a time of approximately 46.3-46.5 ms. The statistics show 7 packets transmitted, 7 received, 0% packet loss, and a time of 6008ms. The round-trip time (rtt) is 46.361/46.452/46.510/0.205 ms.

```
root@ubuntu:/etc/network# ping6 www.google.com
PING www.google.com(2607:f8b0:4001:c01::68) 56 data bytes
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=1 ttl=51 time=46.3 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=2 ttl=51 time=46.5 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=3 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=4 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=5 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=6 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=7 ttl=51 time=46.4 ms
^C
--- www.google.com ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6008ms
rtt min/avg/max/mdev = 46.361/46.452/46.510/0.205 ms
root@ubuntu:/etc/network#
```

VM 2 tracepath6 google

```
QEMU (rgaray-vm2) - TightVNC Viewer
root@ubuntu:/etc/network# ping6 www.google.com
PING www.google.com(2607:f8b0:4001:c01::68) 56 data bytes
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=1 ttl=51 time=46.3 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=2 ttl=51 time=46.5 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=3 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=4 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=5 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=6 ttl=51 time=46.4 ms
64 bytes from 2607:f8b0:4001:c01::68: icmp_seq=7 ttl=51 time=46.4 ms
^C
--- www.google.com ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6008ms
rtt min/avg/max/mdev = 46.361/46.452/46.510/0.205 ms
root@ubuntu:/etc/network# tracepath6 www.google.com
1?: [LOCALHOST] 0.041ms pmtu 1500
1: 2604:2c00:ffe7:e402::1 2.162ms
1: 2604:2c00:ffe7:e402::1 2.080ms
2: 2604:2c00:ffe7:e002:211:20ff:fe75:65c2 2.492ms
3: 2604:2c00:ffdf:117::1 3.649ms
4: 2604:2c00:ffff:ffe8::1 4.905ms
5: 2604:2c00:ffff:ff81::1 3.256ms
6: 2604:2c00:ffff:ffdd::1 3.425ms
7: 2604:2c00:ffff:ffe6::1 3.123ms
8: no reply
^C
root@ubuntu:/etc/network#
```