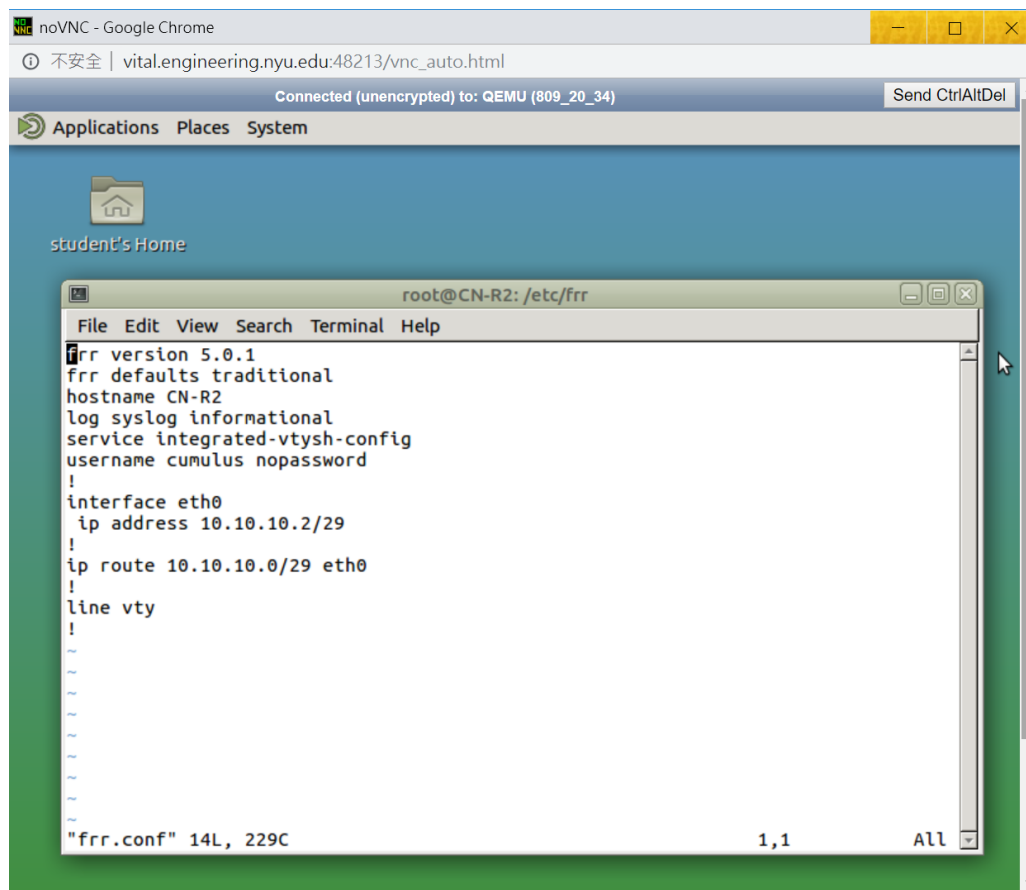
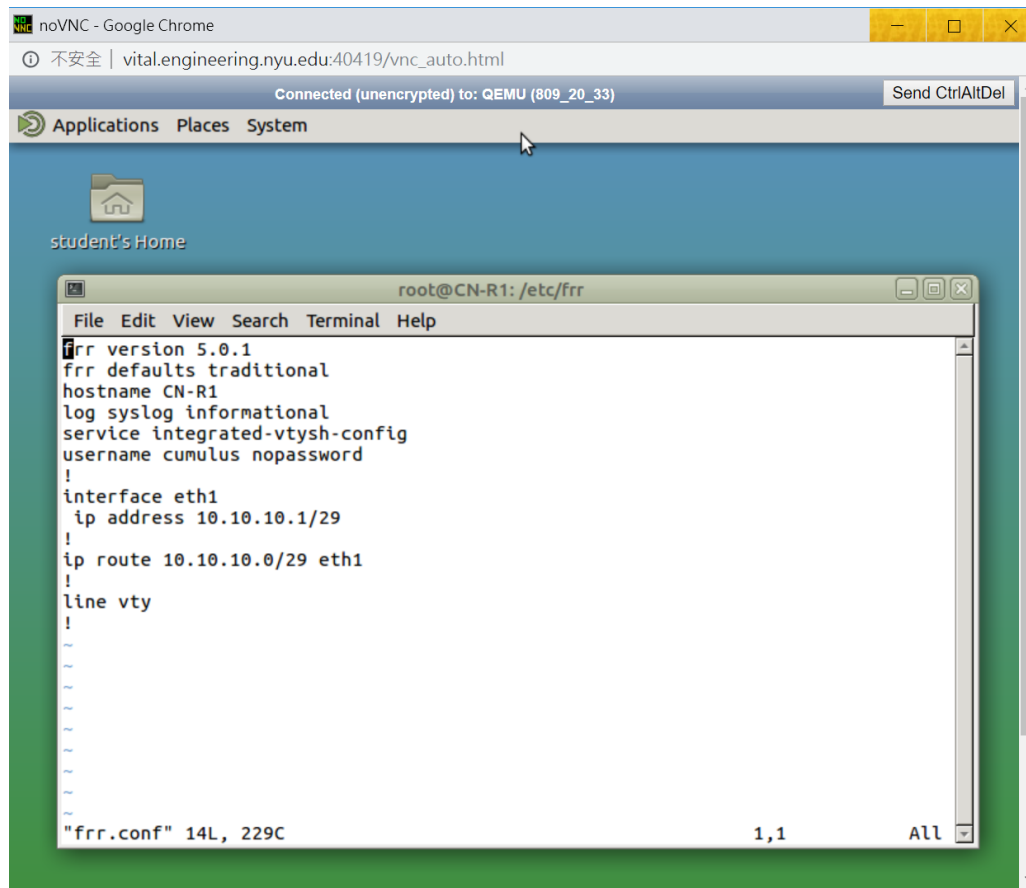
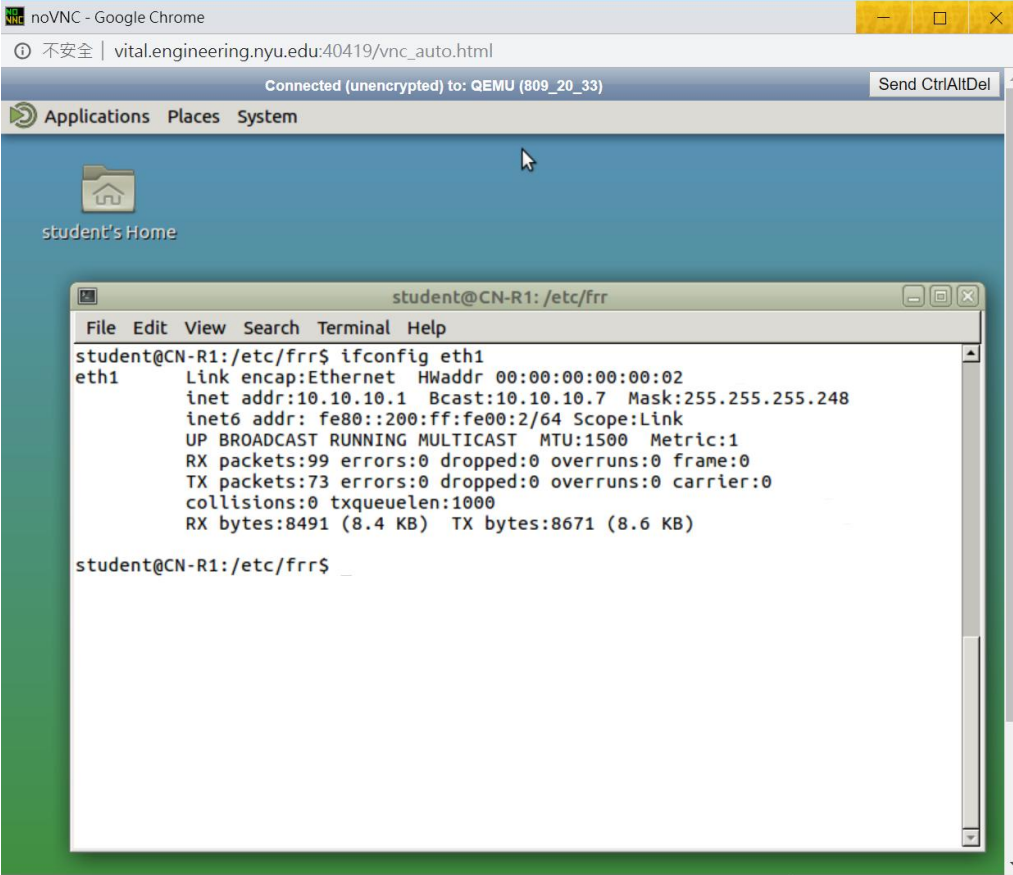


1. Copies of the conf files under /etc/frr/frr.conf for each of R1 and R2:



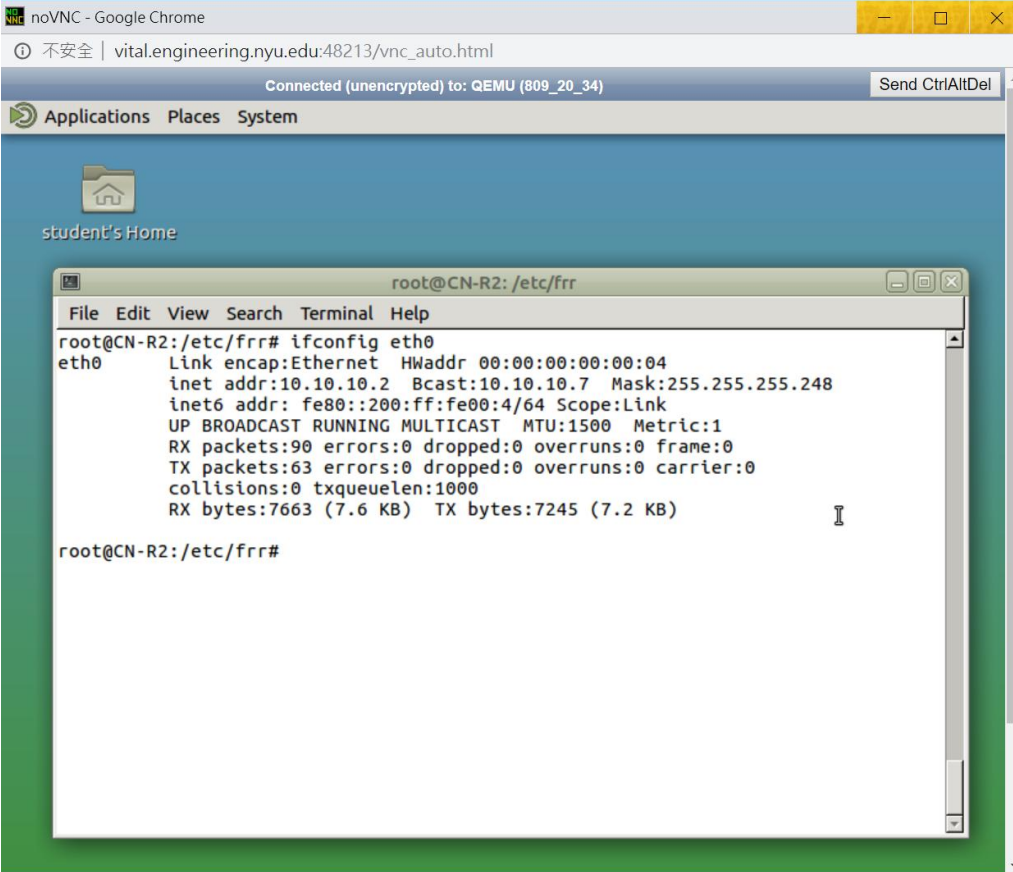
2. The Ethernet addresses of R1, R2 and Kali:



The screenshot shows a noVNC browser window with the address bar displaying `vital.engineering.nyu.edu:40419/vnc_auto.html`. The browser status bar indicates it is connected to QEMU (809_20_33). The desktop environment is a Linux-like system with a menu bar containing 'Applications', 'Places', and 'System'. A terminal window titled 'student@CN-R1: /etc/frr' is open, displaying the output of the `ifconfig eth1` command.

```
student@CN-R1:/etc/frr$ ifconfig eth1
eth1      Link encap:Ethernet  HWaddr 00:00:00:00:00:02
          inet addr:10.10.10.1  Bcast:10.10.10.7  Mask:255.255.255.248
          inet6 addr: fe80::200:ff:fe00:2/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:99 errors:0 dropped:0 overruns:0 frame:0
          TX packets:73 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:8491 (8.4 KB)  TX bytes:8671 (8.6 KB)

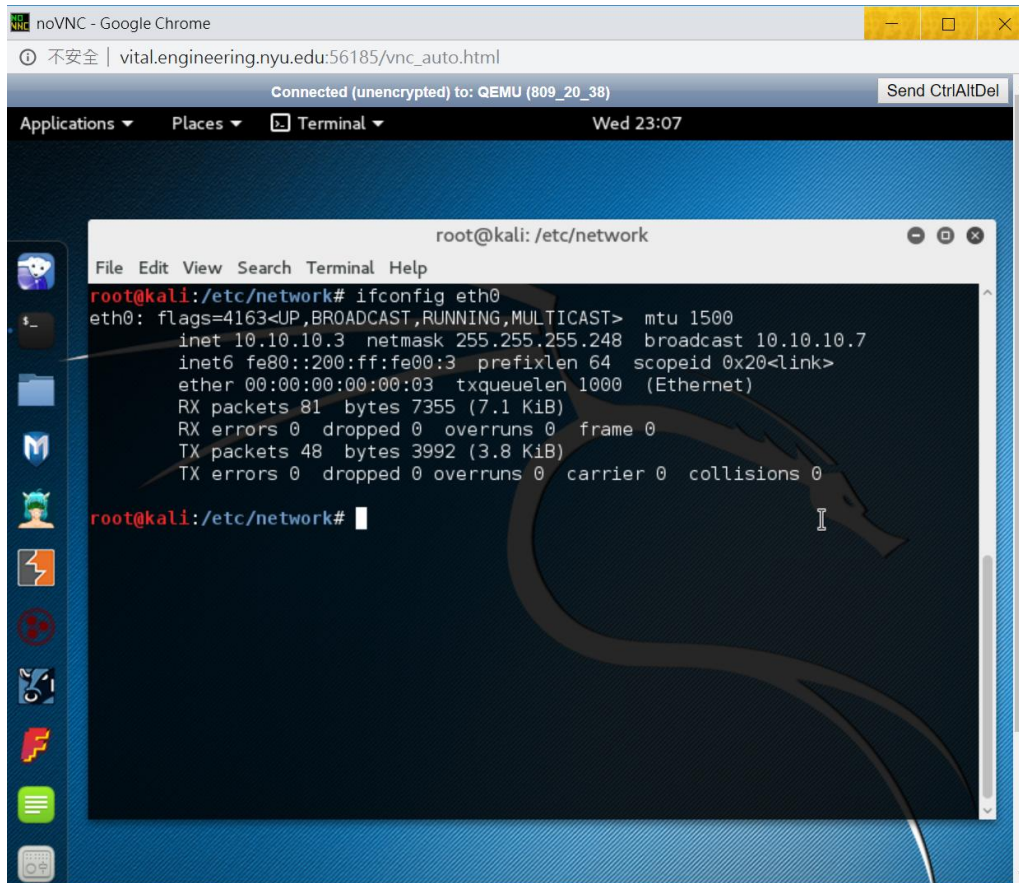
student@CN-R1:/etc/frr$
```



The screenshot shows a noVNC browser window with the address bar displaying `vital.engineering.nyu.edu:48213/vnc_auto.html`. The browser status bar indicates it is connected to QEMU (809_20_34). The desktop environment is a Linux-like system with a menu bar containing 'Applications', 'Places', and 'System'. A terminal window titled 'root@CN-R2: /etc/frr' is open, displaying the output of the `ifconfig eth0` command.

```
root@CN-R2:/etc/frr# ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 00:00:00:00:00:04
          inet addr:10.10.10.2  Bcast:10.10.10.7  Mask:255.255.255.248
          inet6 addr: fe80::200:ff:fe00:4/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:90 errors:0 dropped:0 overruns:0 frame:0
          TX packets:63 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:7663 (7.6 KB)  TX bytes:7245 (7.2 KB)

root@CN-R2:/etc/frr#
```

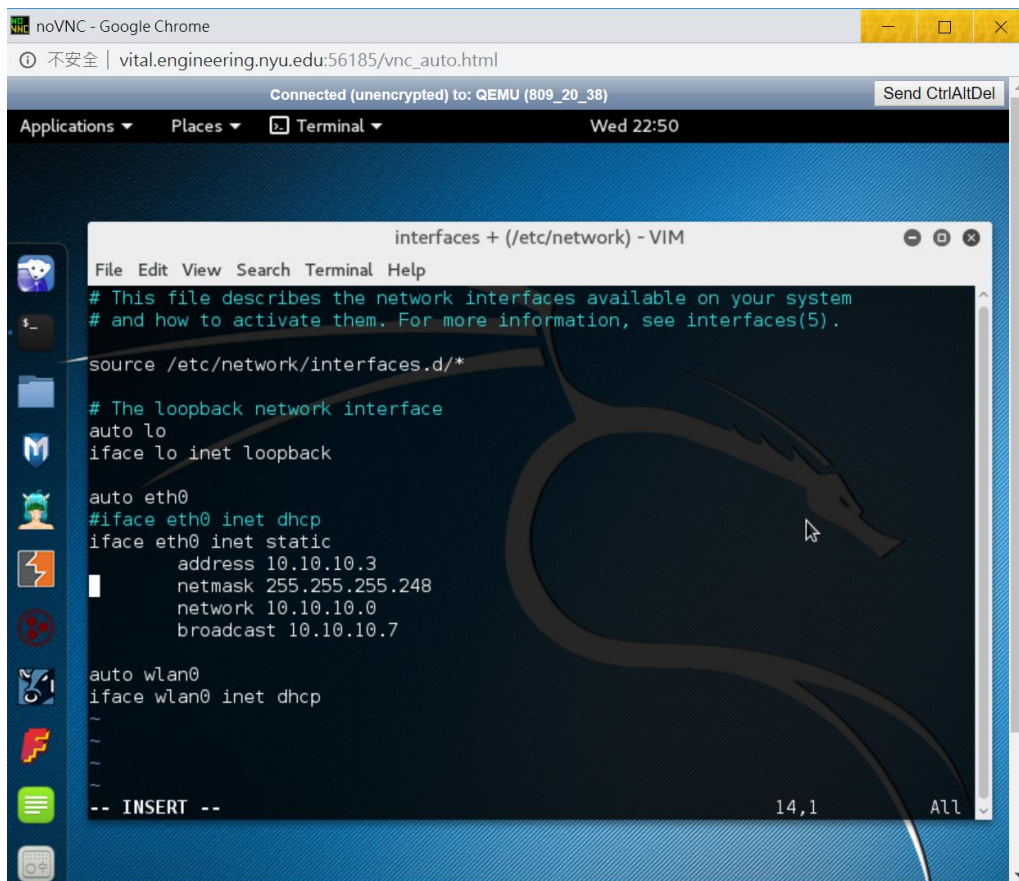


The screenshot shows a terminal window titled 'root@kali: /etc/network' within a noVNC viewer. The terminal displays the output of the command 'ifconfig eth0'. The output shows the configuration for the eth0 interface, including its flags, IP address (10.10.10.3), netmask (255.255.255.248), broadcast address (10.10.10.7), and various statistics like RX and TX packets and errors.

```
root@kali: /etc/network# ifconfig eth0
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.10.10.3 netmask 255.255.255.248 broadcast 10.10.10.7
    inet6 fe80::200:ff:fe00:3 prefixlen 64 scopeid 0x20<link>
    ether 00:00:00:00:00:03 txqueuelen 1000 (Ethernet)
    RX packets 81 bytes 7355 (7.1 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 48 bytes 3992 (3.8 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@kali: /etc/network#
```

3. A copy of the /etc/network/interfaces file for Kali:



The screenshot shows a terminal window titled 'interfaces + (/etc/network) - VIM' within a noVNC viewer. The terminal displays the contents of the /etc/network/interfaces file. The file describes the network interfaces available on the system and how to activate them. It includes comments and configuration lines for the loopback interface 'lo' and the ethernet interface 'eth0'.

```
interfaces + (/etc/network) - VIM
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

auto eth0
#iface eth0 inet dhcp
iface eth0 inet static
    address 10.10.10.3
    netmask 255.255.255.248
    network 10.10.10.0
    broadcast 10.10.10.7

auto wlan0
iface wlan0 inet dhcp
~
~
~
-- INSERT --
14,1 All
```

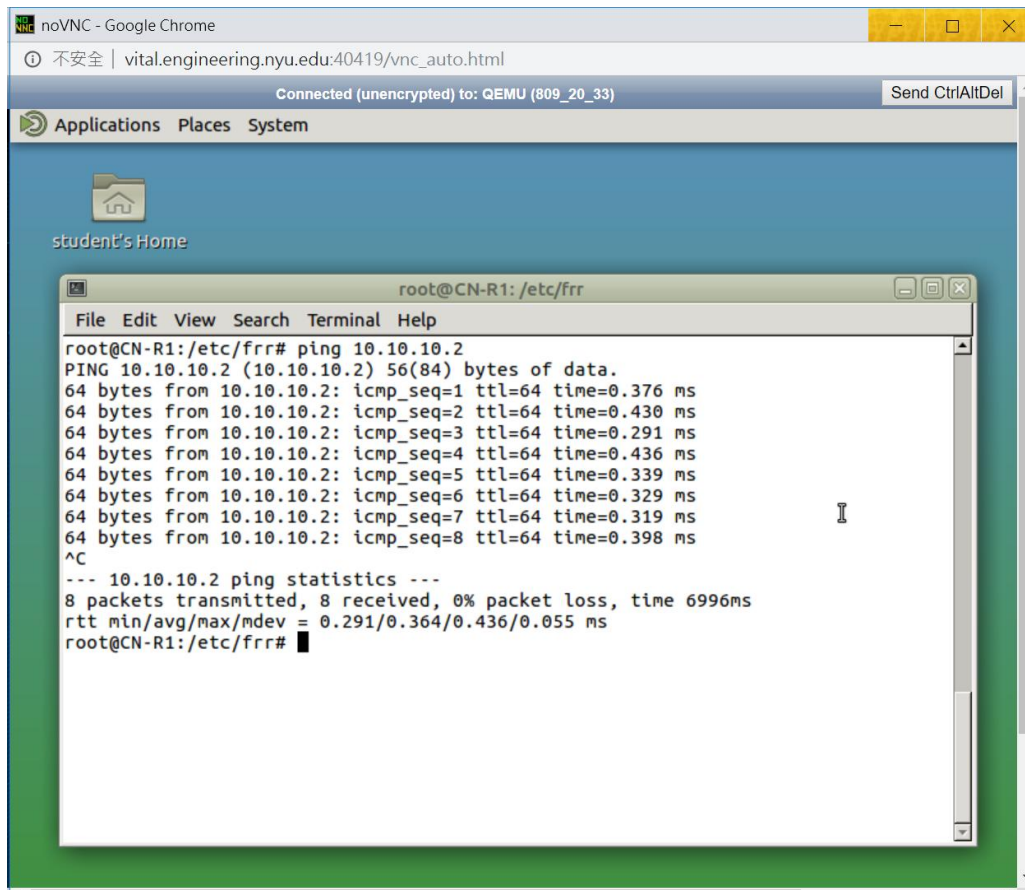

4. Show that ping works between R1, R2 and Kali:

The screenshot shows a noVNC browser window titled "noVNC - Google Chrome" with the address bar displaying "vital.engineering.nyu.edu:56185/vnc_auto.html". The connection status is "Connected (unencrypted) to: QEMU (809_20_38)". The terminal window is titled "root@kali: /etc/network" and shows the following output:

```
root@kali:/etc/network# ping 10.10.10.1
PING 10.10.10.1 (10.10.10.1) 56(84) bytes of data.
64 bytes from 10.10.10.1: icmp_seq=1 ttl=64 time=0.455 ms
64 bytes from 10.10.10.1: icmp_seq=2 ttl=64 time=0.477 ms
64 bytes from 10.10.10.1: icmp_seq=3 ttl=64 time=0.494 ms
64 bytes from 10.10.10.1: icmp_seq=4 ttl=64 time=0.397 ms
64 bytes from 10.10.10.1: icmp_seq=5 ttl=64 time=0.421 ms
64 bytes from 10.10.10.1: icmp_seq=6 ttl=64 time=0.483 ms
64 bytes from 10.10.10.1: icmp_seq=7 ttl=64 time=0.448 ms
64 bytes from 10.10.10.1: icmp_seq=8 ttl=64 time=0.431 ms
^C
--- 10.10.10.1 ping statistics ---
8 packets transmitted, 8 received, 0% packet loss, time 6998ms
rtt min/avg/max/mdev = 0.397/0.450/0.494/0.040 ms
root@kali:/etc/network#
```

The screenshot shows a noVNC browser window titled "noVNC - Google Chrome" with the address bar displaying "vital.engineering.nyu.edu:56185/vnc_auto.html". The connection status is "Connected (unencrypted) to: QEMU (809_20_38)". The terminal window is titled "root@kali: /etc/network" and shows the following output:

```
root@kali:/etc/network# ping 10.10.10.2
PING 10.10.10.2 (10.10.10.2) 56(84) bytes of data.
64 bytes from 10.10.10.2: icmp_seq=1 ttl=64 time=0.490 ms
64 bytes from 10.10.10.2: icmp_seq=2 ttl=64 time=0.419 ms
64 bytes from 10.10.10.2: icmp_seq=3 ttl=64 time=0.439 ms
64 bytes from 10.10.10.2: icmp_seq=4 ttl=64 time=0.546 ms
64 bytes from 10.10.10.2: icmp_seq=5 ttl=64 time=1.75 ms
64 bytes from 10.10.10.2: icmp_seq=6 ttl=64 time=0.451 ms
64 bytes from 10.10.10.2: icmp_seq=7 ttl=64 time=0.409 ms
64 bytes from 10.10.10.2: icmp_seq=8 ttl=64 time=0.380 ms
^C
--- 10.10.10.2 ping statistics ---
8 packets transmitted, 8 received, 0% packet loss, time 6997ms
rtt min/avg/max/mdev = 0.380/0.610/1.751/0.434 ms
root@kali:/etc/network#
```



5. Copies of the arp tables on R1, R2 and Kail:

