

Part 1:

Config:

r11

```
ifconfig eth0 203.50.60.129 netmask 255.255.255.224
ifconfig eth1 203.50.60.65 netmask 255.255.255.224
ifconfig eth2 195.85.10.50
route add -net 203.50.60.128
route add -net 203.50.60.64
route add -net 195.85.10.0
route add -net 189.89.0.0 netmask 255.255.0.0 gw 203.50.60.66
route add default gw 195.85.10.51
```

r12

```
ifconfig eth0 203.50.60.66 netmask 255.255.255.224
route add -net 203.50.60.64
route add default gw 203.50.60.65
```

r12

```
ifconfig eth1 189.89.0.1 netmask 255.255.255.248
route add -net 189.89.0.0
route add -net 189.89.0.8 netmask 255.255.255.248 gw 189.89.0.3
route add -net 189.89.0.16 netmask 255.255.255.248 gw 189.89.0.3
route add -net 189.89.0.24 netmask 255.255.255.248 gw 189.89.0.2
route add -net 189.89.0.32 netmask 255.255.255.248 gw 189.89.0.2
```

r13

```
ifconfig eth0 189.89.0.3 netmask 255.255.255.248
ifconfig eth1 189.89.0.9 netmask 255.255.255.248
ifconfig eth2 189.89.0.17 netmask 255.255.255.248
route add -net 189.89.0.0
route add -net 189.89.0.8
route add -net 189.89.0.16
route add -net 189.89.0.24 netmask 255.255.255.248 gw 189.89.0.2
route add -net 189.89.0.32 netmask 255.255.255.248 gw 189.89.0.2
route add default gw 189.89.0.1
```

r14

```
ifconfig eth0 189.89.0.2 netmask 255.255.255.248
ifconfig eth1 189.89.0.25 netmask 255.255.255.248
ifconfig eth2 189.89.0.33 netmask 255.255.255.248
route add -net 189.89.0.0
route add -net 189.89.0.24
route add -net 189.89.0.32
```

```
route add -net 189.89.0.8 netmask 255.255.255.248 gw 189.89.0.3
route add -net 189.89.0.16 netmask 255.255.255.248 gw 189.89.0.3
route add default gw 189.89.0.1
```

internet

```
ifconfig eth0 195.85.10.51
route add -net 195.85.10.0
route add -net 203.50.60.128 netmask 255.255.255.224 gw 195.85.10.50
route add -net 203.50.60.64 netmask 255.255.255.224 gw 195.85.10.50
route add -net 189.89.0.0 netmask 255.255.0.0 gw 195.85.10.50
```

Part 2:

Config:

n0

```
ifconfig eth0 203.50.60.130 netmask 255.255.255.224
route add -net 203.50.60.128
route add default gw 203.50.60.129
```

n1

```
ifconfig eth0 203.50.60.131 netmask 255.255.255.224
route add -net 203.50.60.128
route add default gw 203.50.60.129
```

n2

```
ifconfig eth0 203.50.60.70 netmask 255.255.255.224
route add -net 203.50.60.64
route add default gw 203.50.60.65
```

n3

```
ifconfig eth0 189.89.0.34 netmask 255.255.255.248
route add -net 189.89.0.32
route add default gw 189.89.0.33
```

n4

```
ifconfig eth0 189.89.0.35 netmask 255.255.255.248
route add -net 189.89.0.32
route add default gw 189.89.0.33
```

n5

```
ifconfig eth0 189.89.0.26 netmask 255.255.255.248
route add -net 189.89.0.24
```

```
route add default gw 189.89.0.25
```

n6

```
ifconfig eth0 189.89.0.27 netmask 255.255.255.248
```

```
route add -net 189.89.0.24
```

```
route add default gw 189.89.0.25
```

n7

```
ifconfig eth0 189.89.0.10 netmask 255.255.255.248
```

```
route add -net 189.89.0.8
```

```
route add default gw 189.89.0.9
```

n8

```
ifconfig eth0 189.89.0.11 netmask 255.255.255.248
```

```
route add -net 189.89.0.8
```

```
route add default gw 189.89.0.9
```

n9

```
ifconfig eth0 189.89.0.18 netmask 255.255.255.248
```

```
route add -net 189.89.0.16
```

```
route add default gw 189.89.0.17
```

n10

```
ifconfig eth0 189.89.0.19 netmask 255.255.255.248
```

```
route add -net 189.89.0.16
```

```
route add default gw 189.89.0.17
```

r15

```
ifconfig eth0 189.89.0.36 netmask 255.255.255.224
```

```
ifconfig eth1 189.89.0.65 netmask 255.255.255.224
```

```
route add -net 189.89.0.32
```

```
route add -net 189.89.0.64
```

```
route add default gw 189.89.0.33
```

n11

```
ifconfig eth0 189.89.0.66 netmask 255.255.255.224
```

```
route add -net 189.89.0.64
```

```
route add default gw 189.89.0.65
```

n12

```
ifconfig eth0 189.89.0.67 netmask 255.255.255.224
```

```
route add -net 189.89.0.64
```

```
route add default gw 189.89.0.65
```

r11

```
ifconfig eth0 203.50.60.129 netmask 255.255.255.224
ifconfig eth1 203.50.60.65 netmask 255.255.255.224
ifconfig eth2 195.85.10.50
route add -net 203.50.60.128
route add -net 203.50.60.64
route add -net 195.85.10.0
route add -net 189.89.0.0 netmask 255.255.0.0 gw 203.50.60.66
route add default gw 195.85.10.51
```

r12

```
ifconfig eth0 203.50.60.66 netmask 255.255.255.224
ifconfig eth1 189.89.0.1 netmask 255.255.255.248
route add -net 189.89.0.0
route add -net 189.89.0.8 netmask 255.255.255.248 gw 189.89.0.3
route add -net 189.89.0.16 netmask 255.255.255.248 gw 189.89.0.3
route add -net 189.89.0.24 netmask 255.255.255.248 gw 189.89.0.2
route add -net 189.89.0.32 netmask 255.255.255.248 gw 189.89.0.2
route add -net 203.50.60.64
route add default gw 203.50.60.65
```

r13

```
ifconfig eth0 189.89.0.3 netmask 255.255.255.248
ifconfig eth1 189.89.0.9 netmask 255.255.255.248
ifconfig eth2 189.89.0.17 netmask 255.255.255.248
route add -net 189.89.0.0
route add -net 189.89.0.8
route add -net 189.89.0.16
route add -net 189.89.0.24 netmask 255.255.255.248 gw 189.89.0.2
route add -net 189.89.0.32 netmask 255.255.255.248 gw 189.89.0.2
route add default gw 189.89.0.1
```

r14

```
ifconfig eth0 189.89.0.2 netmask 255.255.255.248
ifconfig eth1 189.89.0.25 netmask 255.255.255.248
ifconfig eth2 189.89.0.33 netmask 255.255.255.224
route add -net 189.89.0.0
route add -net 189.89.0.24
route add -net 189.89.0.32
route add -net 189.89.0.8 netmask 255.255.255.248 gw 189.89.0.3
route add -net 189.89.0.16 netmask 255.255.255.248 gw 189.89.0.3
route add -net 189.89.0.32 netmask 255.255.255.224 gw 189.89.0.36
route add -net 189.89.0.64 netmask 255.255.255.224
```

```
route add default gw 189.89.0.1
```

internet

```
ifconfig eth0 195.85.10.51
```

```
route add -net 195.85.10.0
```

```
route add -net 203.50.60.128 netmask 255.255.255.224 gw 195.85.10.50
```

```
route add -net 203.50.60.64 netmask 255.255.255.224 gw 195.85.10.50
```

```
route add -net 189.89.0.0 netmask 255.255.0.0 gw 195.85.10.50
```

Topology:

```
install n0 bus0 eth0
```

```
install n1 bus0 eth0
```

```
install n2 bus1 eth0
```

```
install n3 bus7 eth0
```

```
install n4 bus7 eth0
```

```
install n5 bus8 eth0
```

```
install n6 bus8 eth0
```

```
install n7 bus5 eth0
```

```
install n8 bus5 eth0
```

```
install n9 bus6 eth0
```

```
install n10 bus6 eth0
```

```
install n11 bus9 eth0
```

```
install n12 bus9 eth0
```

```
install r11 bus0 eth0
```

```
install r11 bus1 eth1
```

```
install r11 bus3 eth2
```

```
install r12 bus1 eth0
```

```
install r12 bus4 eth1
```

```
install r13 bus4 eth0
```

```
install r13 bus5 eth1
```

```
install r13 bus6 eth2
```

```
install r14 bus4 eth0
```

```
install r14 bus7 eth1
```

```
install r14 bus8 eth2
```

```
install r15 bus8 eth0
```

```
install r15 bus9 eth1
```

```
install internet bus3 eth0
```