CS 4480 PA3 Progress Report—Chandler Eyre, u1410762

Figure 1: Network ip address allocation

10.0.15.3 — R2 — 10.0.18.3

10.0.15.4

10.0.14.3   10.0.14.4   R1   10.0.18.4   10.0.19.3   hb

ha

10.0.16.4

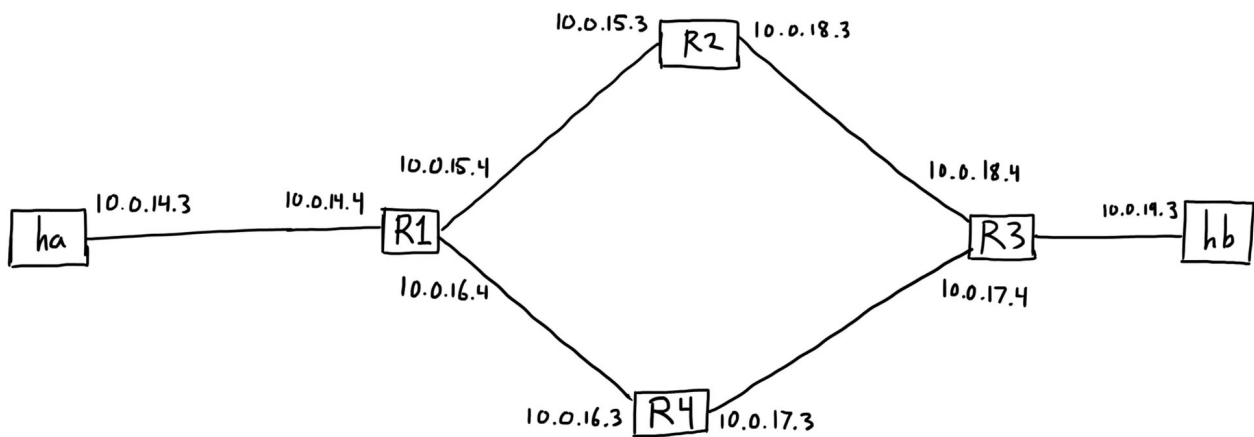10.0.16.3   R4   10.0.17.3

10.0.17.4

Figure 2: Screenshot from Powder

```
root@node:~/CS4480_PA3# hostname
node.ceyre-252824.cs4480-2025.emulab.net
root@node:~/CS4480_PA3# cat /var/emulab/boot/creator
ceyre
root@node:~/CS4480_PA3# geni-get user_urn
urn:publicid:IDN+emulab.net+user+ceyre
root@node:~/CS4480_PA3# geni-get status
{"geni_urn":"urn:publicid:IDN+emulab.net:cs4480-2025+slice+ceyre-252824"
ivers":[{"geni_urn":"urn:publicid:IDN+emulab.net+sliver+1645334","geni_e
"2025-04-15 23:00:00","geni_allocation_status":"geni_provisioned","geni_
nal_status":"geni_ready","geni_error":""}]}
root@node:~/CS4480_PA3# docker ps
CONTAINER ID   IMAGE         COMMAND   CREATED         STATUS
    NAMES
ebc2715d6fe1   cs4480_pa3-r4  "bash"   28 minutes ago  Up 28 minutes
    cs4480_pa3-r4-1
9e64323220ff   cs4480_pa3-r2  "bash"   28 minutes ago  Up 28 minutes
    cs4480_pa3-r2-1
d99d5cd4a8c6   cs4480_pa3-r1  "bash"   28 minutes ago  Up 28 minutes
    cs4480_pa3-r1-1
7ac0257bb276   cs4480_pa3-r3  "bash"   28 minutes ago  Up 28 minutes
    cs4480_pa3-r3-1
c45f5f1b9b73   cs4480_pa3-hb  "bash"   28 minutes ago  Up 28 minutes
    cs4480_pa3-hb-1
75cde68f7c47   cs4480_pa3-ha  "bash"   28 minutes ago  Up 28 minutes
    cs4480_pa3-ha-1
root@node:~/CS4480_PA3# docker network ls
NETWORK ID     NAME             DRIVER   SCOPE
646ffb09de6a   bridge           bridge   local
55f7e5a1065e   cs4480_pa3_net14 bridge   local
d9a8526ef12d   cs4480_pa3_net15 bridge   local
6616d7a8d71b   cs4480_pa3_net16 bridge   local
b0326c55a391   cs4480_pa3_net17 bridge   local
367d60226308   cs4480_pa3_net18 bridge   local
f40e04097f11   cs4480_pa3_net19 bridge   local
ee11cd11e01b   host             host     local
f34d03c821c0   none             null     local
root@node:~/CS4480_PA3#
```

```
root@node:~# docker exec -it cs4480_pa3-ha-1 ping 10.0.19.3 -c 1
PING 10.0.19.3 (10.0.19.3) 56(84) bytes of data.
64 bytes from 10.0.19.3: icmp_seq=1 ttl=61 time=0.329 ms

--- 10.0.19.3 ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 0.329/0.329/0.329/0.000 ms
root@node:~#
```

```
d99d5cd4a8c6# show ip ospf neighbor

Neighbor ID    Pri State         Up Time       Dead Time Address       In
terface                          RXmtL RqstL DBsmL

d99d5cd4a8c6# show ip ospf route
============ OSPF network routing table ============
N    10.0.14.0/24       [5] area: 0.0.0.0
                        directly attached to eth2
N    10.0.15.0/24       [5] area: 0.0.0.0
                        directly attached to eth0
N    10.0.16.0/24       [5] area: 0.0.0.0
                        directly attached to eth1

============ OSPF router routing table ============

============ OSPF external routing table ==========

d99d5cd4a8c6#
```

```
root@9e64323220ff:/# tcpdump
tcpdump: verbose output suppressed, use -v[v]... for full protocol decode
listening on eth0, link-type EN10MB (Ethernet), snapshot length 262144 bytes
14:41:27.490753 IP 9e64323220ff > ospf-all.mcast.net: OSPFv2, Hello, length 44
14:41:36.214199 IP cs4480_pa3-r1-1.cs4480_pa3_net15 > ospf-all.mcast.net: OSPFv2, Hello, le
ngth 44
14:41:37.490816 IP 9e64323220ff > ospf-all.mcast.net: OSPFv2, Hello, length 44
14:41:42.312043 IP 10.0.14.3 > 10.0.19.3: ICMP echo request, id 2, seq 1, length 64
14:41:42.312165 IP 10.0.19.3 > 10.0.14.3: ICMP echo reply, id 2, seq 1, length 64
14:41:46.216537 IP cs4480_pa3-r1-1.cs4480_pa3_net15 > ospf-all.mcast.net: OSPFv2, Hello, le
ngth 44
14:41:47.479849 ARP, Request who-has cs4480_pa3-r1-1.cs4480_pa3_net15 tell 9e64323220ff, le
ngth 28
14:41:47.480114 ARP, Request who-has 9e64323220ff tell cs4480_pa3-r1-1.cs4480_pa3_net15, le
ngth 28
14:41:47.480175 ARP, Reply 9e64323220ff is-at ea:f7:cc:c9:9a:7f (oui Unknown), length 28
14:41:47.480186 ARP, Reply cs4480_pa3-r1-1.cs4480_pa3_net15 is-at 96:e1:71:71:b9:47 (oui Un
known), length 28
14:41:47.490844 IP 9e64323220ff > ospf-all.mcast.net: OSPFv2, Hello, length 44
```