TRABALHO FINAL MININET

Sheldon Gabriel Bernardo Martins – 1802
João Pedro Andrade Moreira - 1723
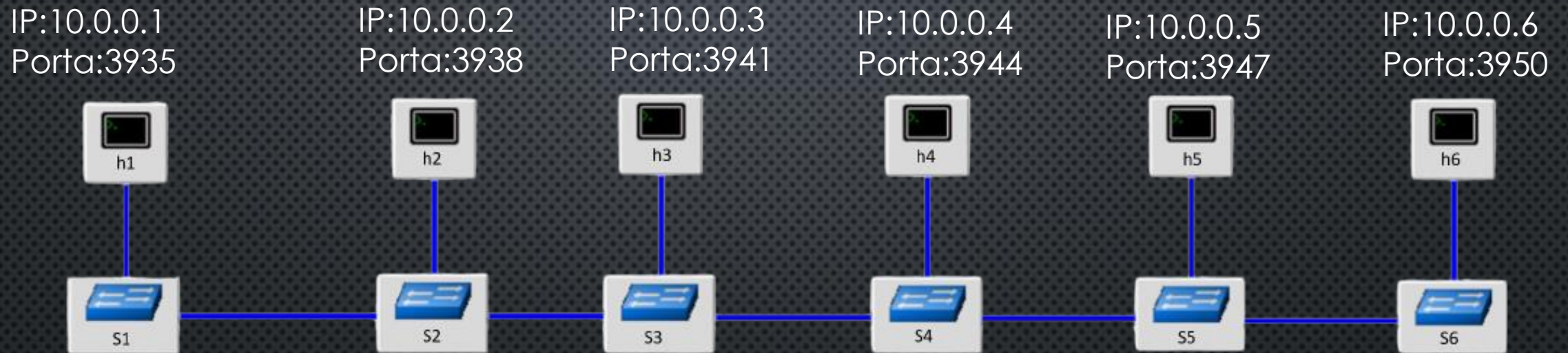## Lucas Franqueira Carneiro Fonseca-1734

Inspecionando informações das interfaces dos hosts

```
mininet> dump
<Host h1: h1-eth0:10.0.0.1 pid=3935>
<Host h2: h2-eth0:10.0.0.2 pid=3938>
<Host h3: h3-eth0:10.0.0.3 pid=3941>
<Host h4: h4-eth0:10.0.0.4 pid=3944>
<Host h5: h5-eth0:10.0.0.5 pid=3947>
<Host h6: h6-eth0:10.0.0.6 pid=3950>
<OVSSwitch s1: lo:127.0.0.1,s1-eth1:None,s1-eth2:None pid=3956>
<OVSSwitch s2: lo:127.0.0.1,s2-eth1:None,s2-eth2:None,s2-eth3:None pid=3959>
<OVSSwitch s3: lo:127.0.0.1,s3-eth1:None,s3-eth2:None,s3-eth3:None pid=3962>
<OVSSwitch s4: lo:127.0.0.1,s4-eth1:None,s4-eth2:None,s4-eth3:None pid=3965>
<OVSSwitch s5: lo:127.0.0.1,s5-eth1:None,s5-eth2:None,s5-eth3:None pid=3968>
<OVSSwitch s6: lo:127.0.0.1,s6-eth1:None,s6-eth2:None pid=3971>
<Controller c0: 127.0.0.1:6653 pid=3928>
mininet>
```
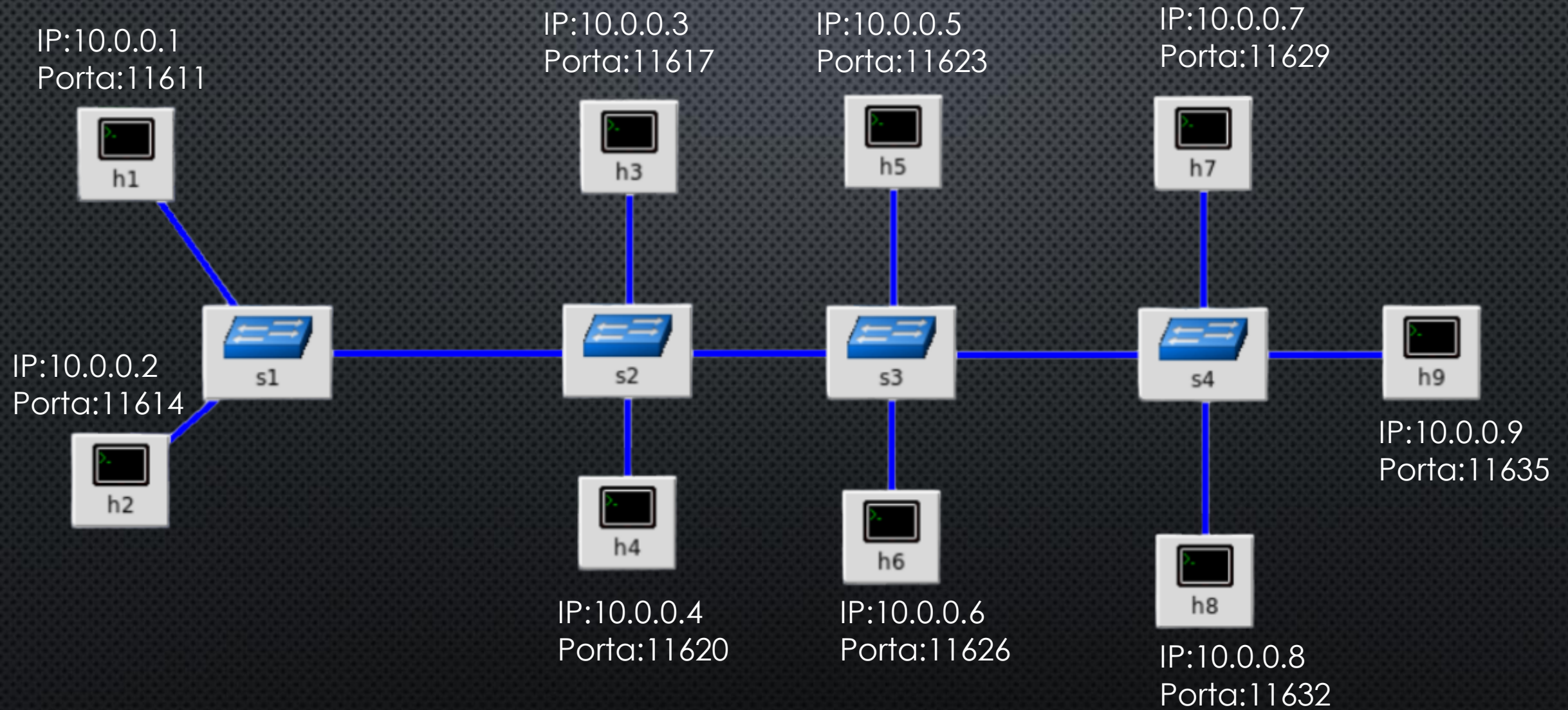
```
mininet> pingallfull
*** Ping: testing ping reachability
h1 -> h2 h3 h4 h5 h6
h2 -> h1 h3 h4 h5 h6
h3 -> h1 h2 h4 h5 h6
h4 -> h1 h2 h3 h5 h6
h5 -> h1 h2 h3 h4 h6
h6 -> h1 h2 h3 h4 h5
*** Results:
 h1->h2: 1/1, rtt min/avg/max/mdev 2.324/2.324/2.324/0.000 ms
 h1->h3: 1/1, rtt min/avg/max/mdev 3.067/3.067/3.067/0.000 ms
 h1->h4: 1/1, rtt min/avg/max/mdev 3.390/3.390/3.390/0.000 ms
 h1->h5: 1/1, rtt min/avg/max/mdev 4.109/4.109/4.109/0.000 ms
 h1->h6: 1/1, rtt min/avg/max/mdev 4.319/4.319/4.319/0.000 ms
 h2->h1: 1/1, rtt min/avg/max/mdev 0.975/0.975/0.975/0.000 ms
 h2->h3: 1/1, rtt min/avg/max/mdev 1.930/1.930/1.930/0.000 ms
 h2->h4: 1/1, rtt min/avg/max/mdev 2.510/2.510/2.510/0.000 ms
 h2->h5: 1/1, rtt min/avg/max/mdev 3.087/3.087/3.087/0.000 ms
 h2->h6: 1/1, rtt min/avg/max/mdev 9.424/9.424/9.424/0.000 ms
 h3->h1: 1/1, rtt min/avg/max/mdev 2.969/2.969/2.969/0.000 ms
 h3->h2: 1/1, rtt min/avg/max/mdev 2.400/2.400/2.400/0.000 ms
 h3->h4: 1/1, rtt min/avg/max/mdev 4.779/4.779/4.779/0.000 ms
 h3->h5: 1/1, rtt min/avg/max/mdev 6.342/6.342/6.342/0.000 ms
 h3->h6: 1/1, rtt min/avg/max/mdev 11.028/11.028/11.028/0.000 ms
 h4->h1: 1/1, rtt min/avg/max/mdev 3.774/3.774/3.774/0.000 ms
 h4->h2: 1/1, rtt min/avg/max/mdev 3.254/3.254/3.254/0.000 ms
 h4->h3: 1/1, rtt min/avg/max/mdev 2.292/2.292/2.292/0.000 ms
 h4->h5: 1/1, rtt min/avg/max/mdev 8.133/8.133/8.133/0.000 ms
 h4->h6: 1/1, rtt min/avg/max/mdev 6.132/6.132/6.132/0.000 ms
 h5->h1: 1/1, rtt min/avg/max/mdev 4.567/4.567/4.567/0.000 ms
 h5->h2: 1/1, rtt min/avg/max/mdev 4.319/4.319/4.319/0.000 ms
 h5->h3: 1/1, rtt min/avg/max/mdev 3.106/3.106/3.106/0.000 ms
 h5->h4: 1/1, rtt min/avg/max/mdev 2.385/2.385/2.385/0.000 ms
 h5->h6: 1/1, rtt min/avg/max/mdev 4.740/4.740/4.740/0.000 ms
 h6->h1: 1/1, rtt min/avg/max/mdev 5.588/5.588/5.588/0.000 ms
 h6->h2: 1/1, rtt min/avg/max/mdev 9.536/9.536/9.536/0.000 ms
 h6->h3: 1/1, rtt min/avg/max/mdev 4.467/4.467/4.467/0.000 ms
 h6->h4: 1/1, rtt min/avg/max/mdev 2.937/2.937/2.937/0.000 ms
 h6->h5: 1/1, rtt min/avg/max/mdev 1.436/1.436/1.436/0.000 ms
```

Desenho ilustrativo da topologia com suas informações

IP:10.0.0.1
Porta:3935

IP:10.0.0.2
Porta:3938

IP:10.0.0.3
Porta:3941

IP:10.0.0.4
Porta:3944

IP:10.0.0.5
Porta:3947

IP:10.0.0.6
Porta:3950

Testes de ping entre os diferentes nós, pacotes chegando nos nós com uso do comando tcpdump.

INSPECIONANDO INFORMAÇÕES DAS INTERFACES, ENDEREÇOS MAC, IP E PORTAS

```
mininet> dump
<Host h1: h1-eth0:10.0.0.1 pid=11611>
<Host h2: h2-eth0:10.0.0.2 pid=11614>
<Host h3: h3-eth0:10.0.0.3 pid=11617>
<Host h4: h4-eth0:10.0.0.4 pid=11620>
<Host h5: h5-eth0:10.0.0.5 pid=11623>
<Host h6: h6-eth0:10.0.0.6 pid=11626>
<Host h7: h7-eth0:10.0.0.7 pid=11629>
<Host h8: h8-eth0:10.0.0.8 pid=11632>
<Host h9: h9-eth0:10.0.0.9 pid=11635>
<OVSSwitch s1: lo:127.0.0.1,s1-eth1:None,s1-eth2:None,s1-eth3:None pid=11641>
<OVSSwitch s2: lo:127.0.0.1,s2-eth1:None,s2-eth2:None,s2-eth3:None,s2-eth4:None pid=11644>
<OVSSwitch s3: lo:127.0.0.1,s3-eth1:None,s3-eth2:None,s3-eth3:None,s3-eth4:None pid=11647>
<OVSSwitch s4: lo:127.0.0.1,s4-eth1:None,s4-eth2:None,s4-eth3:None,s4-eth4:None pid=11650>
<Controller c0: 127.0.0.1:6653 pid=11604>
```

Desenho ilustrativo da topologia com suas informações

TESTES DE PING