

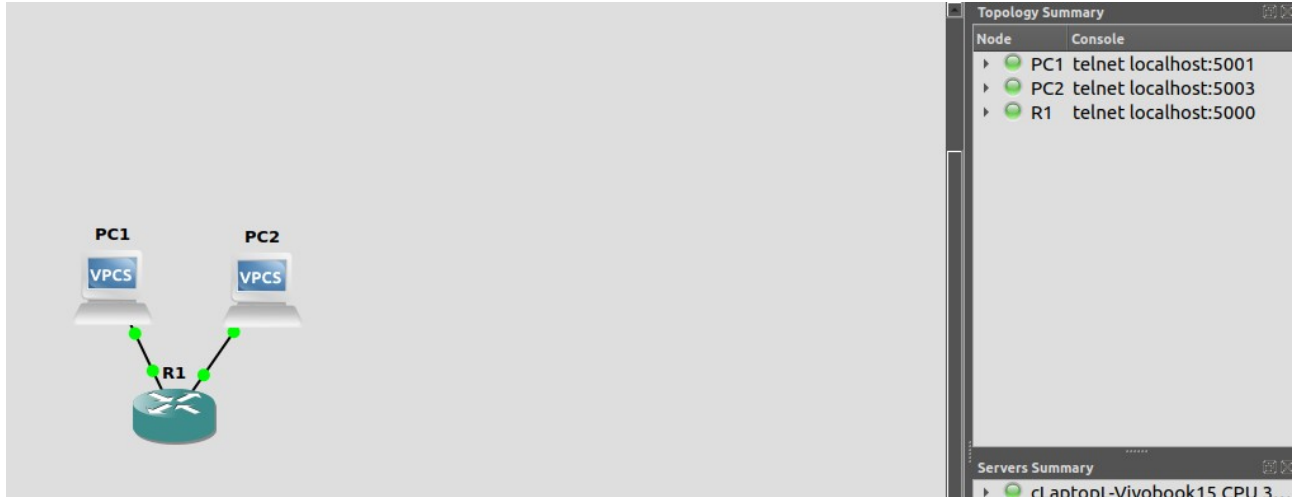
Data Communications and Networking

Lab 2 – Cisco Routers

Part 1:

Installed c2691-adventerprisek9-mz.124-25d.image router image

Part 2:



Topology Created

```
PC1> ping 192.168.2.1  
No gateway found  
PC1> 
```

Couldn't ping pc2 from pc1, as the are on different networks 192.168.x

```
PC1> ping 192.168.1.254  
192.168.1.254 icmp_seq=1 timeout  
84 bytes from 192.168.1.254 icmp_seq=2 ttl=255 time=2.528 ms  
84 bytes from 192.168.1.254 icmp_seq=3 ttl=255 time=6.113 ms  
84 bytes from 192.168.1.254 icmp_seq=4 ttl=255 time=6.608 ms  
84 bytes from 192.168.1.254 icmp_seq=5 ttl=255 time=7.802 ms
```

ping from pc1 to fe0/0, worked because same network

```
PC2> ping 192.168.2.254  
192.168.2.254 icmp_seq=1 timeout  
84 bytes from 192.168.2.254 icmp_seq=2 ttl=255 time=10.131 ms  
84 bytes from 192.168.2.254 icmp_seq=3 ttl=255 time=4.279 ms  
84 bytes from 192.168.2.254 icmp_seq=4 ttl=255 time=2.059 ms  
84 bytes from 192.168.2.254 icmp_seq=5 ttl=255 time=2.629 ms
```

ping from pc2 to fe0/1, worked because same networks

```
PC1> ping 192.168.2.254  
No gateway found
```

ping from pc1 to fe0/1, DOESN'T work because it is pinging a host address on a seperate network 192.168.x (1 != 2)

```
PC1> ip 192.168.1.1 192.168.1.254/24  
Checking for duplicate address...  
PC1 : 192.168.1.1 255.255.255.0 gateway 192.168.1.254
```

Gateway set on pc1

```
PC1> ping 192.168.2.1  
192.168.2.1 icmp_seq=1 timeout  
192.168.2.1 icmp_seq=2 timeout  
192.168.2.1 icmp_seq=3 timeout  
192.168.2.1 icmp_seq=4 timeout  
192.168.2.1 icmp_seq=5 timeout
```

Pinging pc2 from pc1 doesn't work despite the gateway because there is no other gateway to connect to

```
PC2> ip 192.168.2.1 192.168.2.254/24
Checking for duplicate address...
PC2 : 192.168.2.1 255.255.255.0 gateway 192.168.2.254
```

I created a second gateway on pc2

```
PC1> ping 192.168.2.1
84 bytes from 192.168.2.1 icmp_seq=1 ttl=63 time=30.199 ms
84 bytes from 192.168.2.1 icmp_seq=2 ttl=63 time=13.308 ms
84 bytes from 192.168.2.1 icmp_seq=3 ttl=63 time=12.698 ms
84 bytes from 192.168.2.1 icmp_seq=4 ttl=63 time=20.351 ms
84 bytes from 192.168.2.1 icmp_seq=5 ttl=63 time=21.125 ms
```

It now works as intended