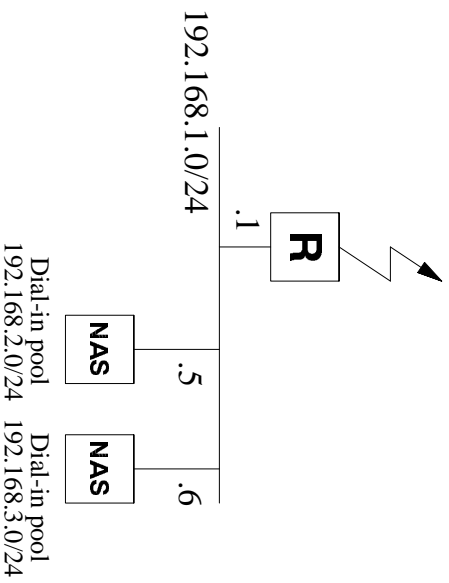


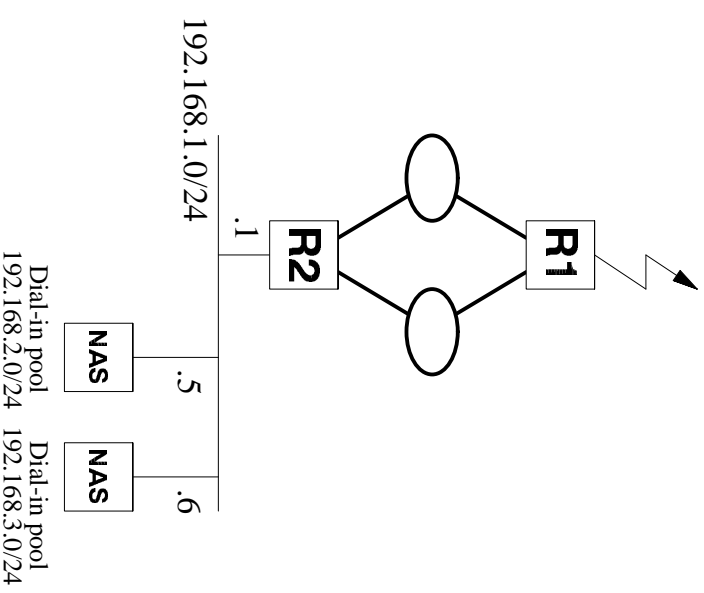
Initial rollout of core network

1. Before...



```
interface serial 0
 encapsulation ppp
interface ethernet 0
 ip address 192.168.1.1 255.255.255.0
interface ethernet 1
 shutdown
ip route 192.168.2.0 255.255.255.0 192.168.1.5
ip route 192.168.3.0 255.255.255.0 192.168.1.6
ip route 0.0.0.0 0.0.0.0 serial0
```

2. ...After



Design

Plan

IP addressing

Allocate new subnets for the core networks: 192.168.2.0/28 and 192.168.2.16/28
Take .1 and .17 for the switches themselves (management address)
Take .2 and .18 for R1
Take .3 and .19 for R2

Write a plan for converting "before" into "after". Goals:
(1) cause as little disruption to traffic as possible
(2) at each stage have a roll-back plan for undoing any changes
You can assume that the existing border R has a spare ethernet interface. List any other assumptions you make.

List the equipment and materials you will need.

R1 config

```
interface serial 0
 encapsulation ppp

interface ethernet 0
 ip address 192.168.2.2 255.255.255.240

interface ethernet 1
 ip address 192.168.2.18 255.255.255.240

router ospf 1
 default-information originate metric 100
 ...

ip route 0.0.0.0 0.0.0.0 serial0
```

R2 config

```
interface ethernet 0
 ip address 192.168.2.3 255.255.255.240

interface ethernet 1
 ip address 192.168.2.19 255.255.255.240

interface ethernet 2
 ip address 192.168.1.1 255.255.255.0

router ospf 1
 redistribute static subnets
 redistribute connected subnets
 ...

ip route 192.168.2.0 255.255.255.0 192.168.1.5
ip route 192.168.3.0 255.255.255.0 192.168.1.6
```