



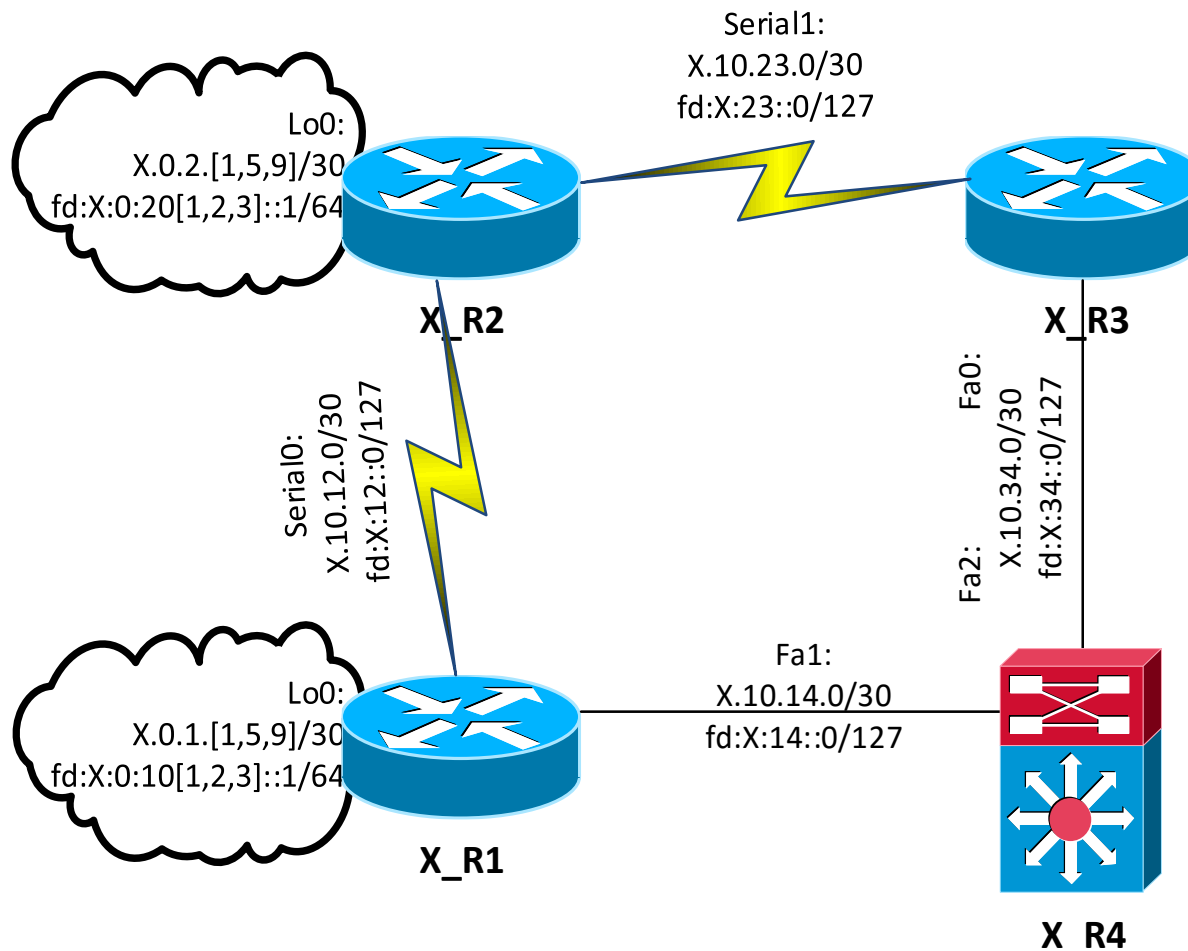
Laboratories Route Redistribution and Optimization



ROUTE Module 4, 5

Basic Topology ①

- Odd X uses EIGRP, even Y uses OSPF
- DO NOT add loopbacks into routing process



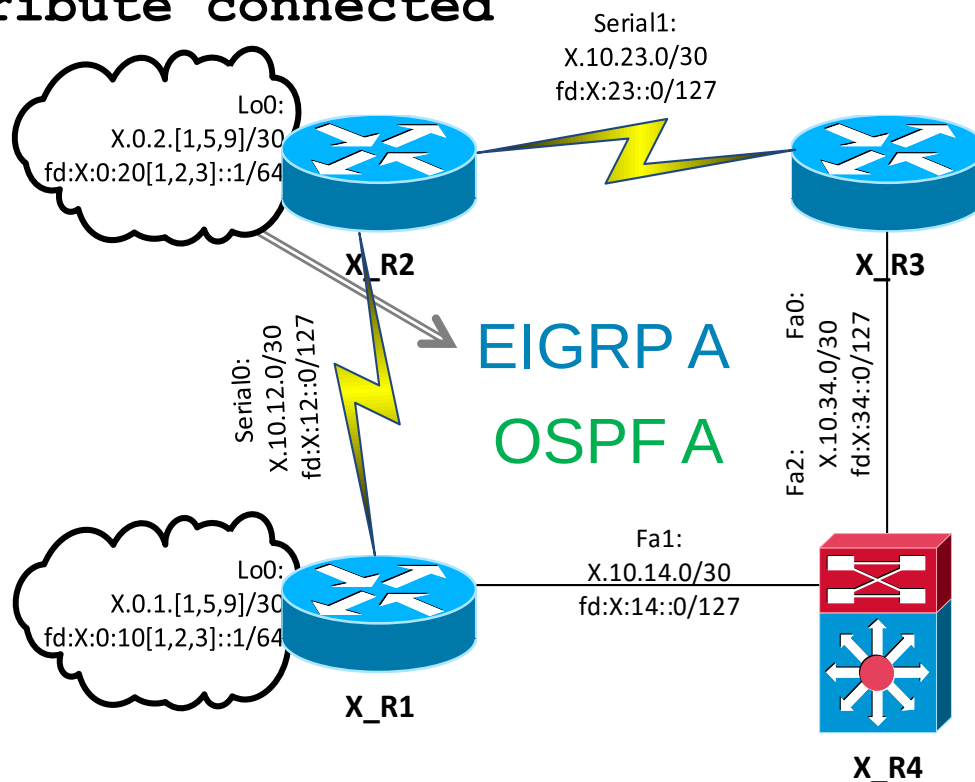
Lab 4.1: Redistributing Connected Routes

- Remove R2's Lo0 from routing process

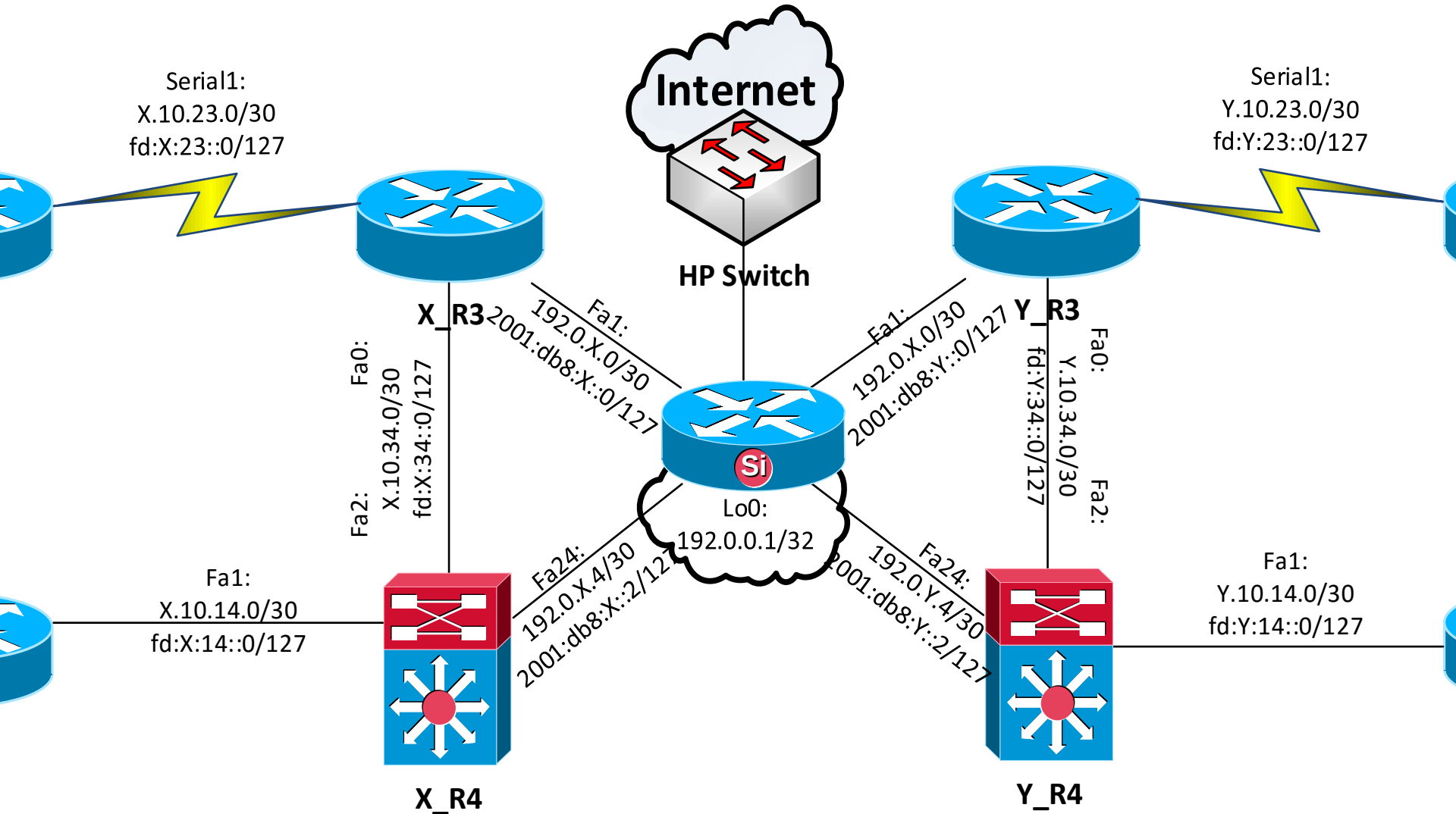
- R2:

(conf) #

```
router {eigrp X|ospf Y}  
  redistribute connected
```



Basic Topology ②



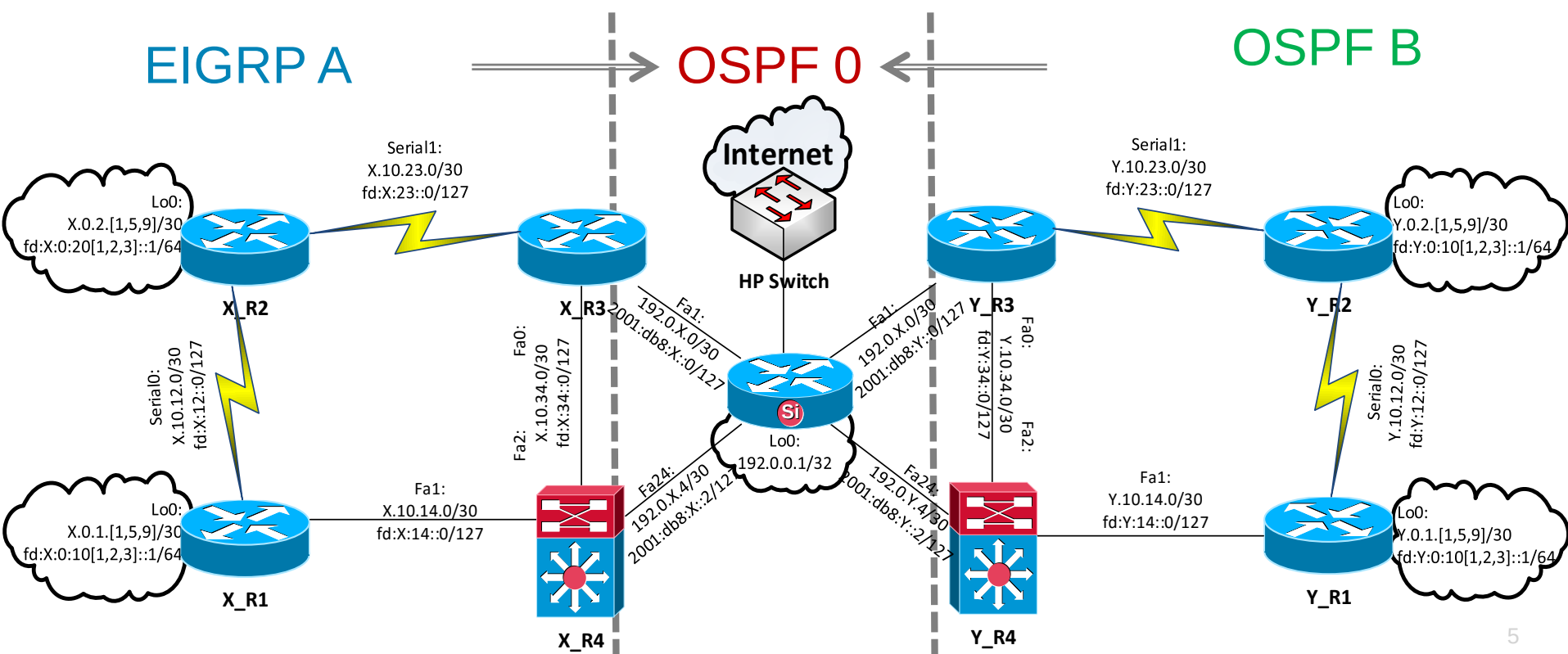
Lab 4.2: Redistribution into OSPF

- R3, R4, Omega:

```
(conf)#
router ospf 99
  network ... area 0
```

- R3 and R4:

```
(conf)# router ospf 99
  redis eigrp A subnets metric 100 metric-type 2
  redis ospf B subnets metric 100 metric-type 1
```



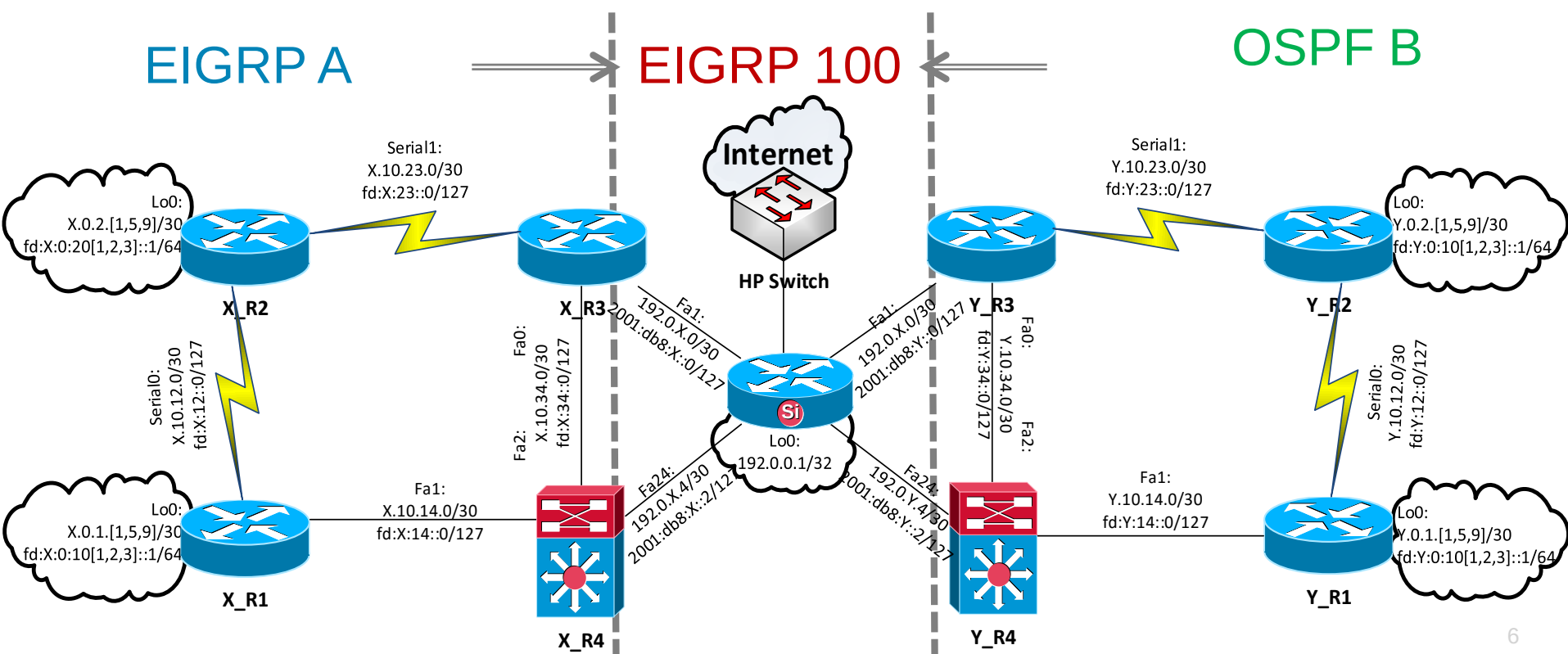
Lab 4.3: Redistribution into EIGRP

■ R3, R4, Omega:

```
(conf) #
router eigrp 100
  no auto-summary
  network ...
```

■ R3 and R4:

```
(conf) # router eigrp 100
  redis eigrp A metr 10000 100 255 1 1500
  redis ospf B metr 10000 100 255 1 1500
```



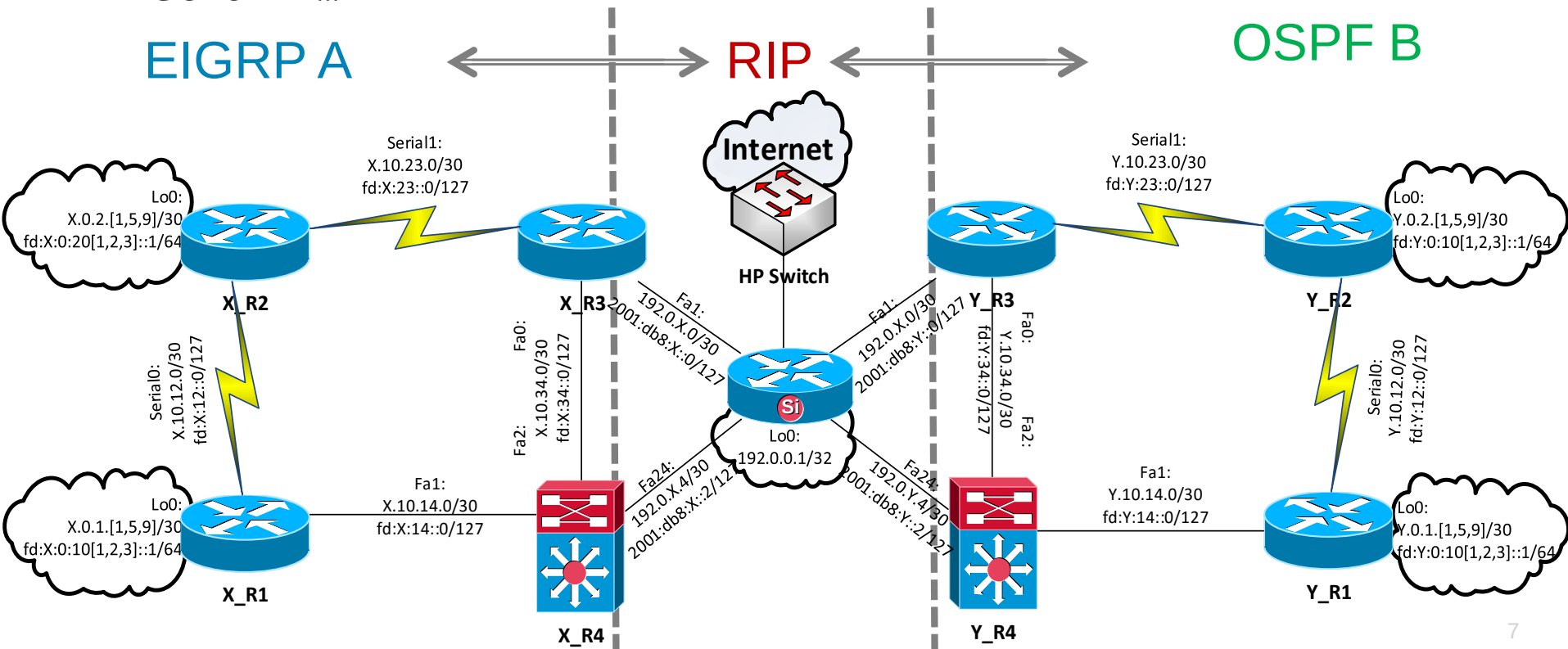
Lab 4.5: Redistribution into RIP

▪ R3, R4, Omega:

```
(conf) #  
router rip  
version 2  
no auto-summary  
network ...
```

▪ R3 and R4:

```
(conf) #  
router rip  
redistribute eigrp A metric 10  
redistribute ospf B metric 10
```



Lab 4.6: Repairing RIP-OSPF Issue

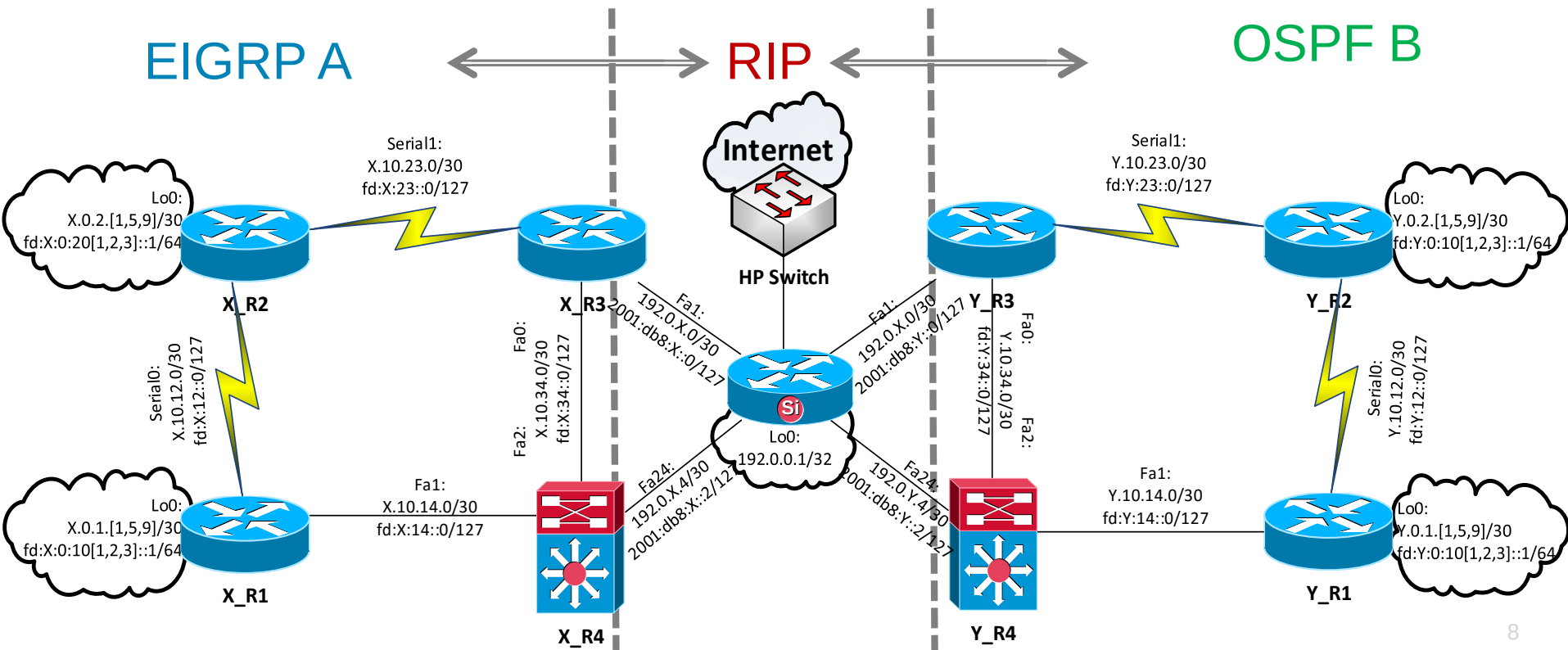
■ B_R3 and B_R4:

(conf) #

```
access-list 99 permit A.0.0.0 0.255.255.255
```

```
router ospf B
```

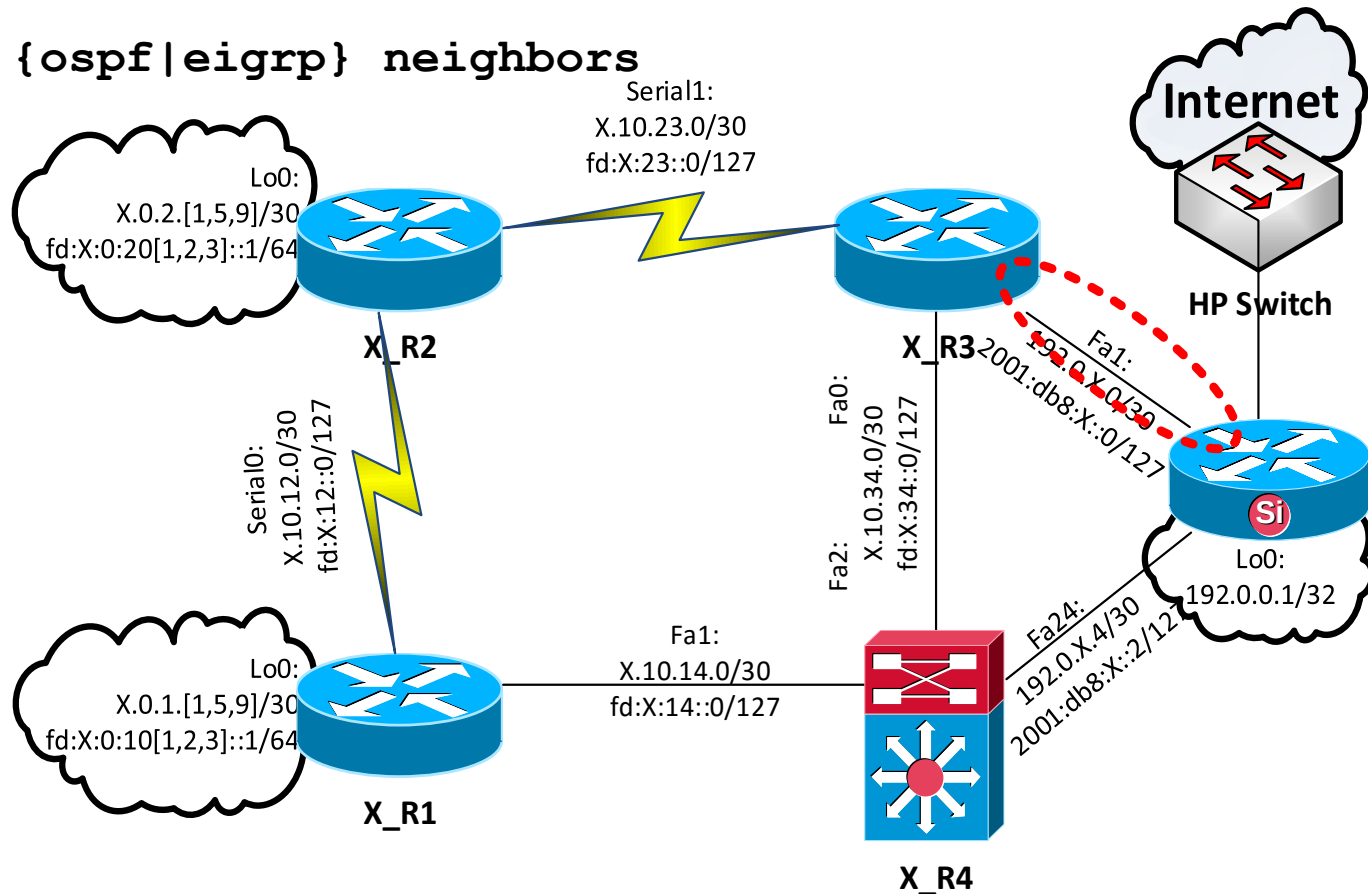
```
distance 125 0.0.0.0 255.255.255.255 99
```



Lab 5.1: Passive Interface

■ R1, R2:

```
(conf) #  
router {eigrp X | ospf Y}  
  passive-interface serial0  
  
show ip {ospf|eigrp} neighbors
```

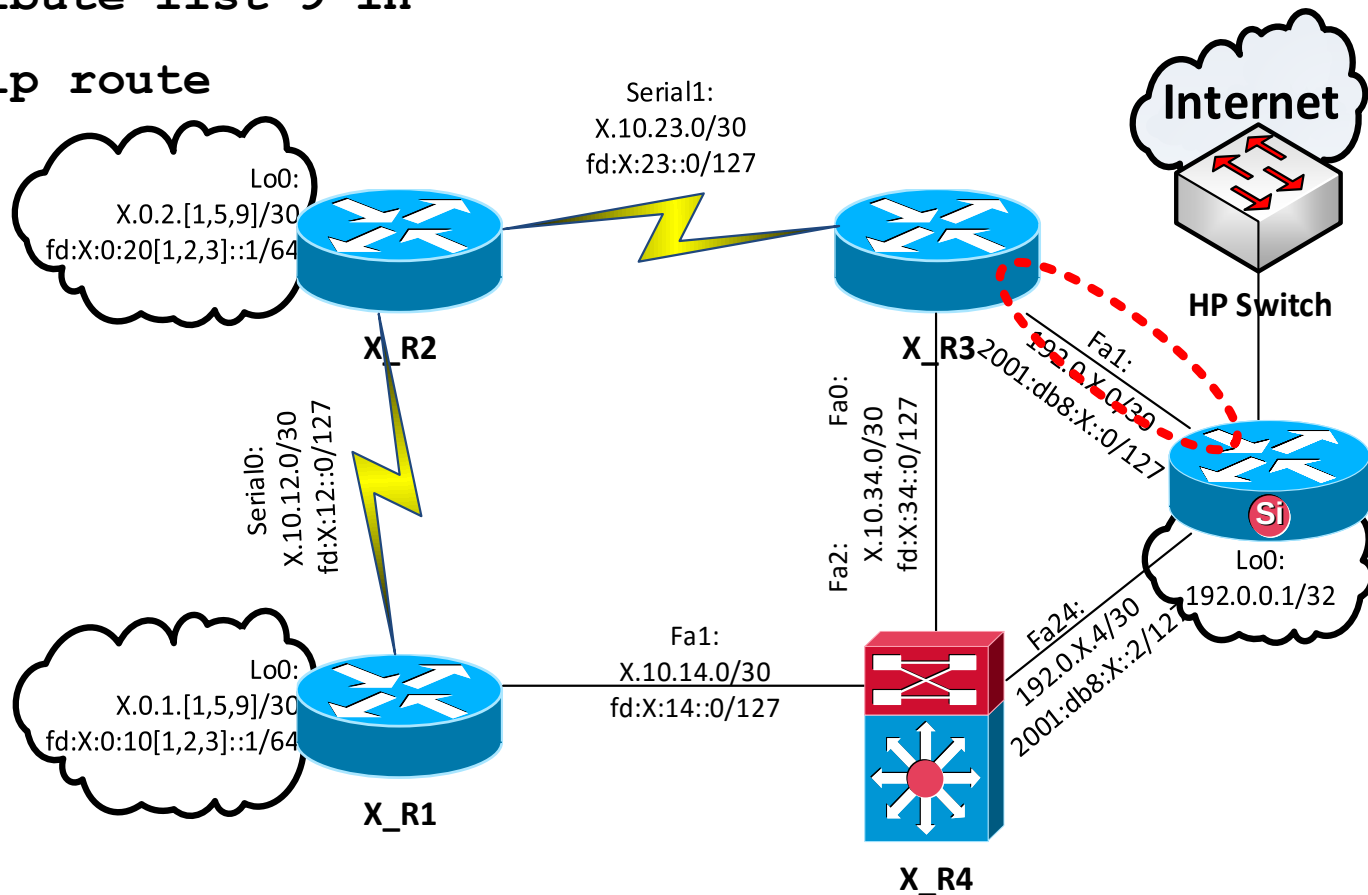


Lab 5.2a: Deny R2's Lo0 with Distribute List Using ACL

■ R1, R3:

```
(conf)# access-list 9 deny X.0.2.0 0.0.0.15
(conf)# access-list 9 permit any
(conf)# router {eigrp X | ospf Y}
      distribute-list 9 in

# show ip route
```



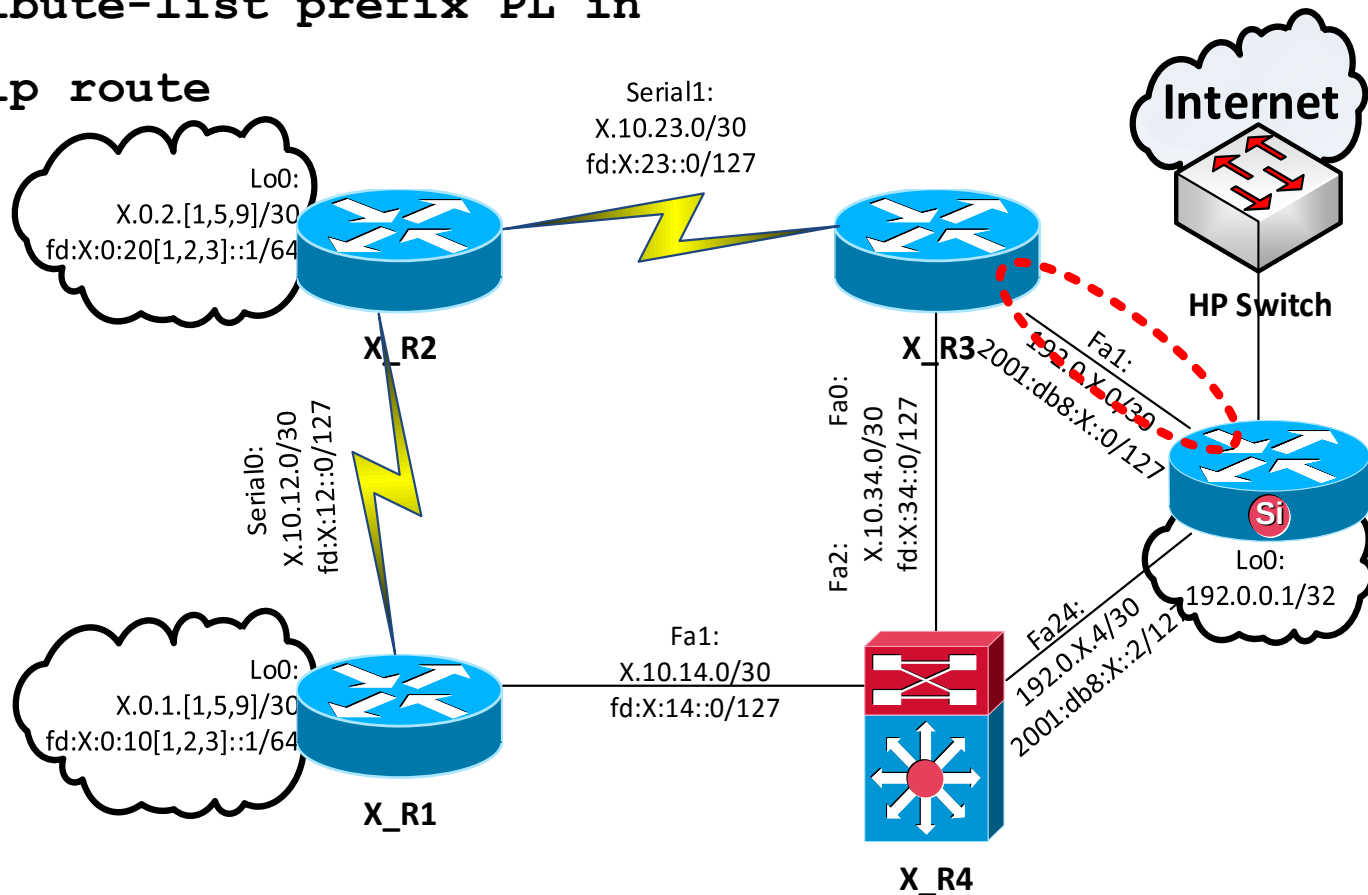
Lab 5.2b: Deny R1's Lo0 with Distribute

List Using Prefix-List

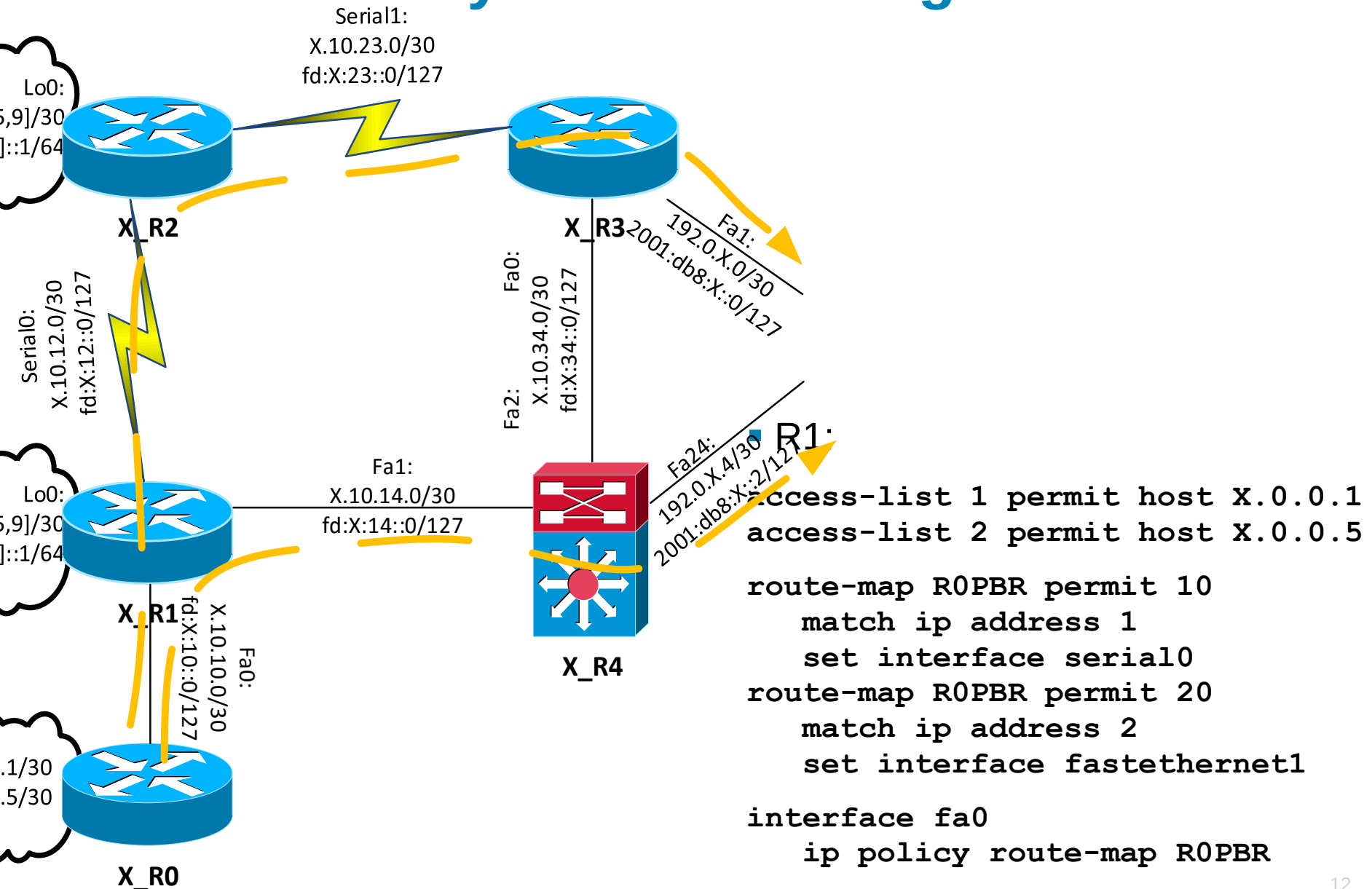
▪ R2, R4:

```
(conf)# ip prefix-list PL deny X.0.1.0/29 le 30
(conf)# ip prefix-list PL deny X.0.1.8/30
(conf)# ip prefix-list PL permit 0.0.0.0/0 le 32
(conf)# router {eigrp X | ospf Y}
      distribute-list prefix PL in
```

```
# show ip route
```



Lab 5.3: Policy Based Routing



Lab 5.4: IP SLA



Labs created by [Vladimír Veselý](#) for C1P practice.

Last updated: 2016-03-08