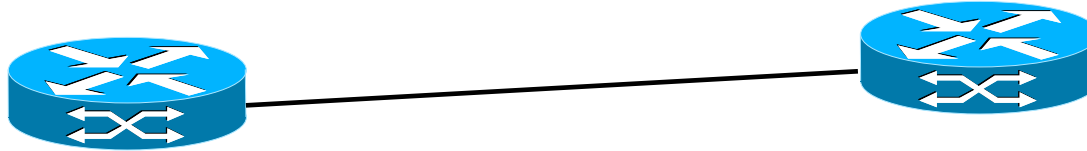




BGP LAB

BGP configuration



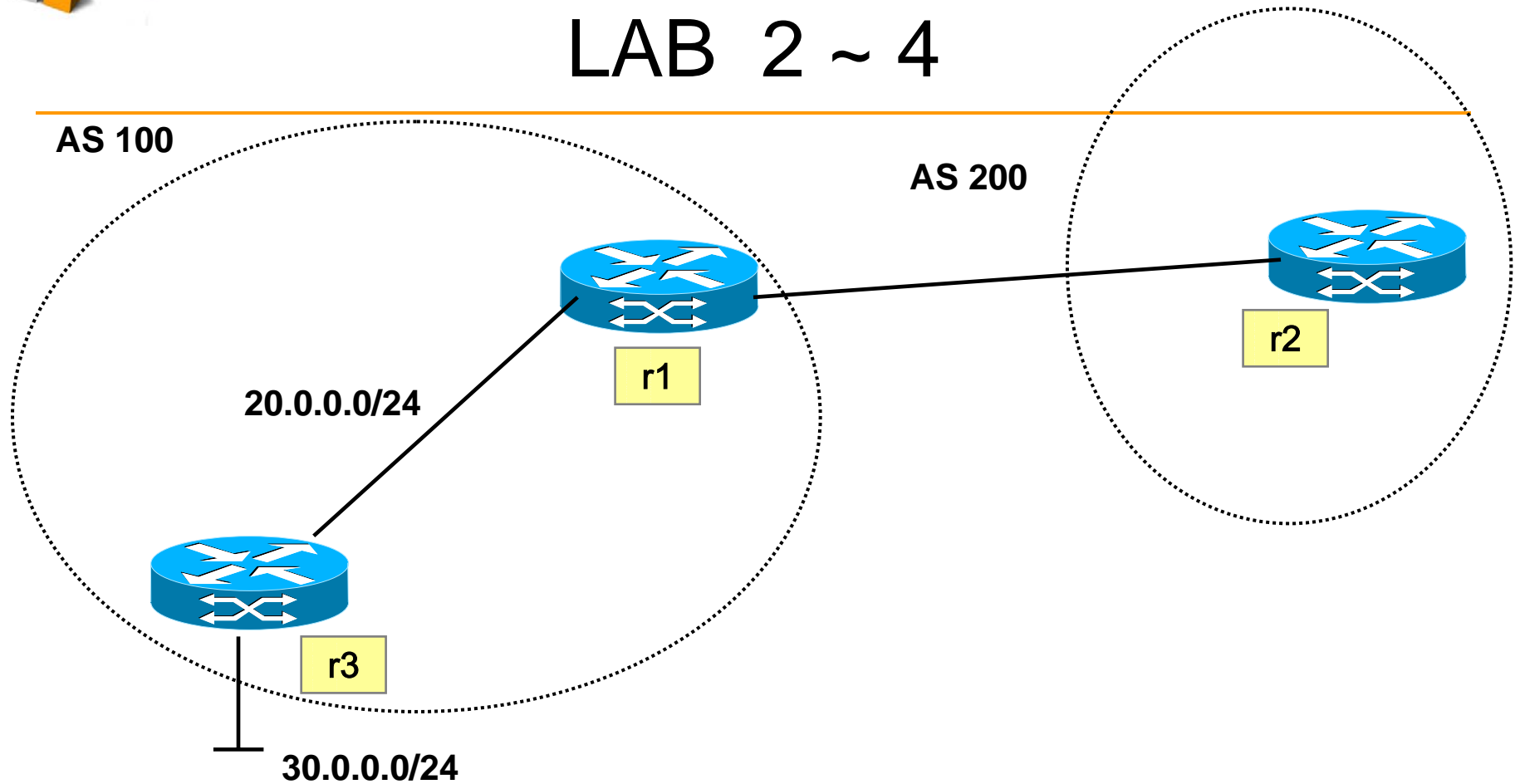
- 1. enable router BGP
 - ◆ Router(config-router)# router bgp [AS NUMBER]
 - 2. neighbor configuration
 - ◆ Router(config-router)# neighbor [peer address] remote-as [AS NUMBER]
 - 3 . Check the status
 - ◆ Router# Show ip bgp summary
 - ◆ Router# Show ip bgp
-

LAB 1 – basic configuration



- Configure for IBG and EBGP

LAB 2 ~ 4



- Configure for sending network block



LAB 2 network command

- Network configuration
 - ◆ Router(config-router)# network 30.0.0.0
 - Check status
 - ◆ Router# Show ip bgp summary
 - ◆ Router# Show ip bgp
-



LAB 3 static redistribution

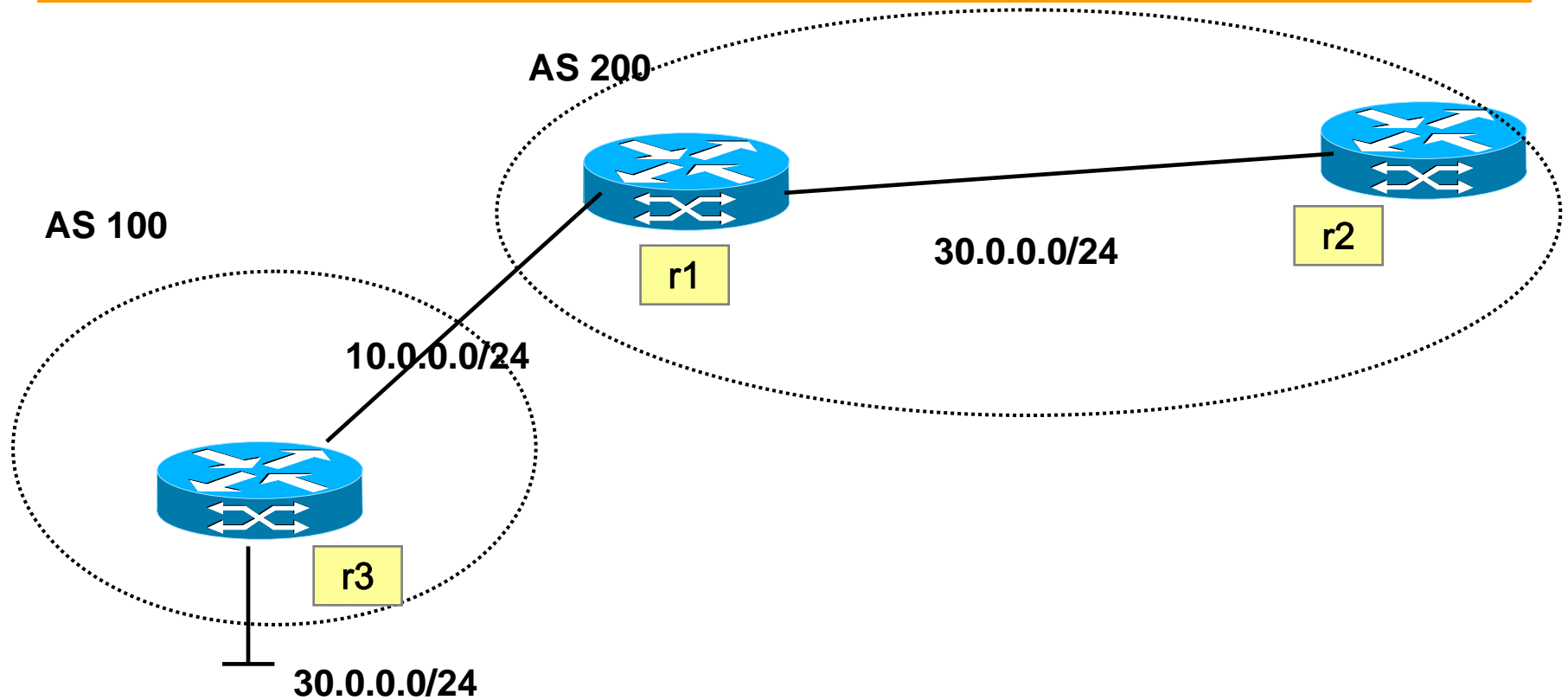
- Delete network command
 - Configure static router
 - ◆ Router(config)# ip route 30.0.0.0 255.255.255.0 null0
 - Redistribute static configuration
 - ◆ Router(config-router)# redistribute static
 - Check status
 - ◆ Router# Show ip bgp summary
 - ◆ Router# Show ip bgp
-



LAB 4 IGP redistribution

- Delete static route
 - Configure isis level 1 for r1 and r3
 - Redistribiute ospf configuration
 - ◆ Router(config-router)# redistribute ospf 1 metric 100
 - Check status
 - ◆ Router# Show ip bgp summary
 - ◆ Router# Show ip bgp
 - ◆ Router# Show ip bgp neighbor
-

LAB 5 next-hop-self

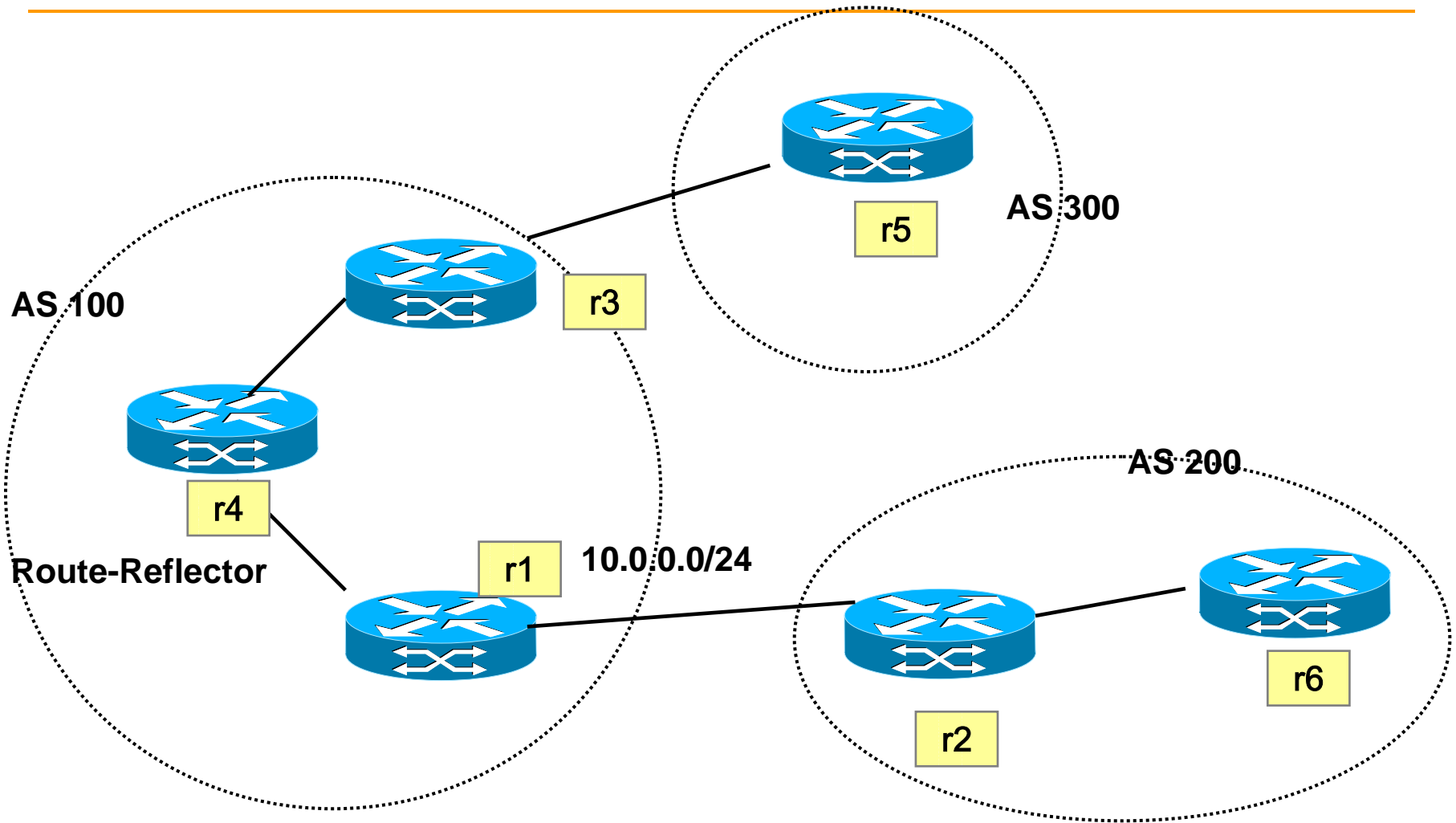




LAB 5 next-hop-self

- Configure BGP
 - Check next-hop in r2
 - Configure next-hop-self in r1
 - ◆ Router(config-router)# neighbor 30.0.0.2 next-hop-self
 - Check status
 - ◆ Router# Show ip bgp summary
 - ◆ Router# Show ip bgp
-

LAB 6 route-reflector

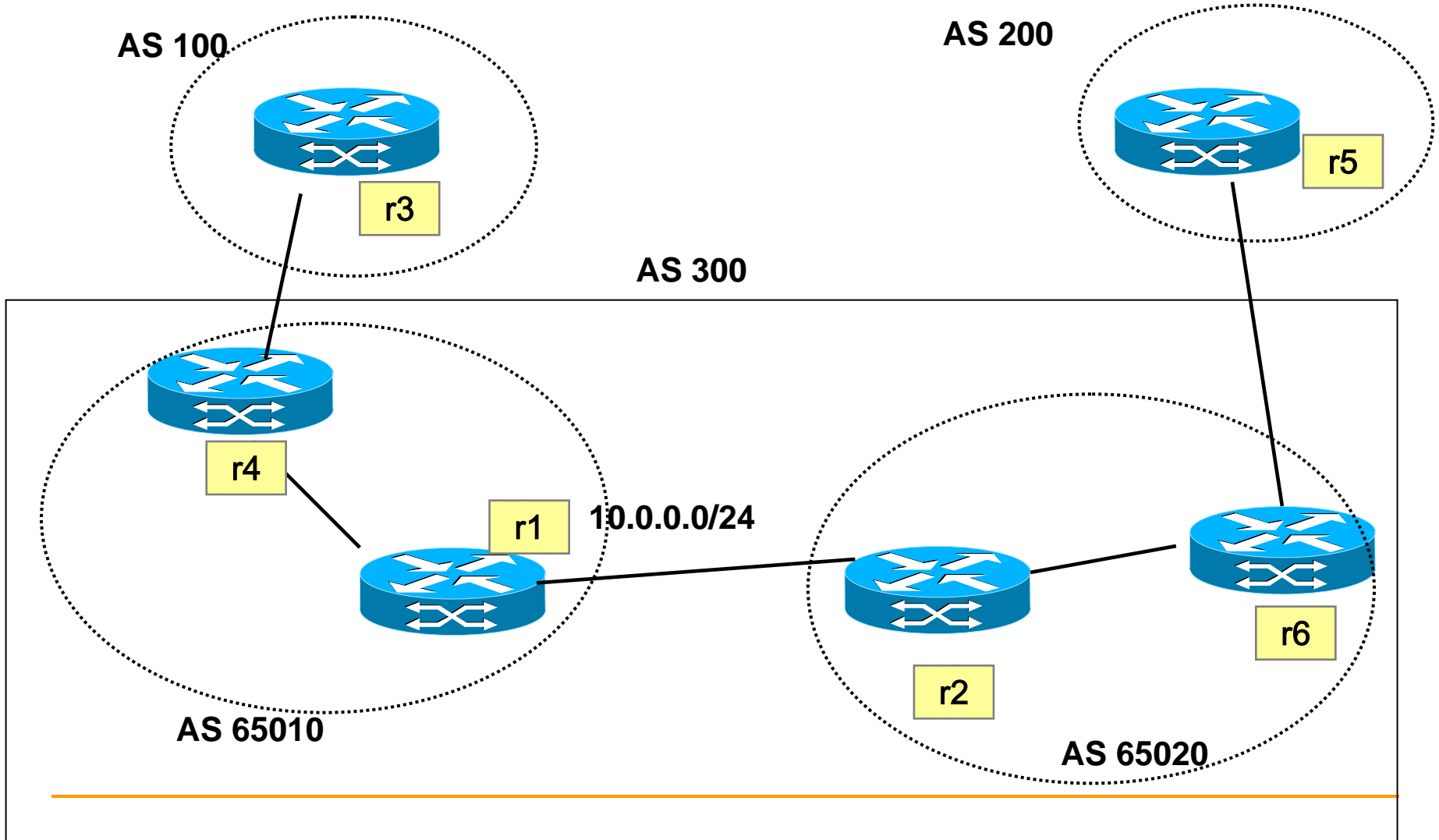




LAB 6 route-reflector

- Configure BGP in each routers in each AS
 - Configure Router-Reflector in r4 and r6 for each neighbor
 - ◆ Neighbor x.x.x.x route-reflector-client
 - configure next-hop-self
 - Check status
 - Router# Show ip bgp neighbor
 - ◆ Router# Show ip bgp summary
 - ◆ Router# Show ip bgp
-

LAB 7 confederation

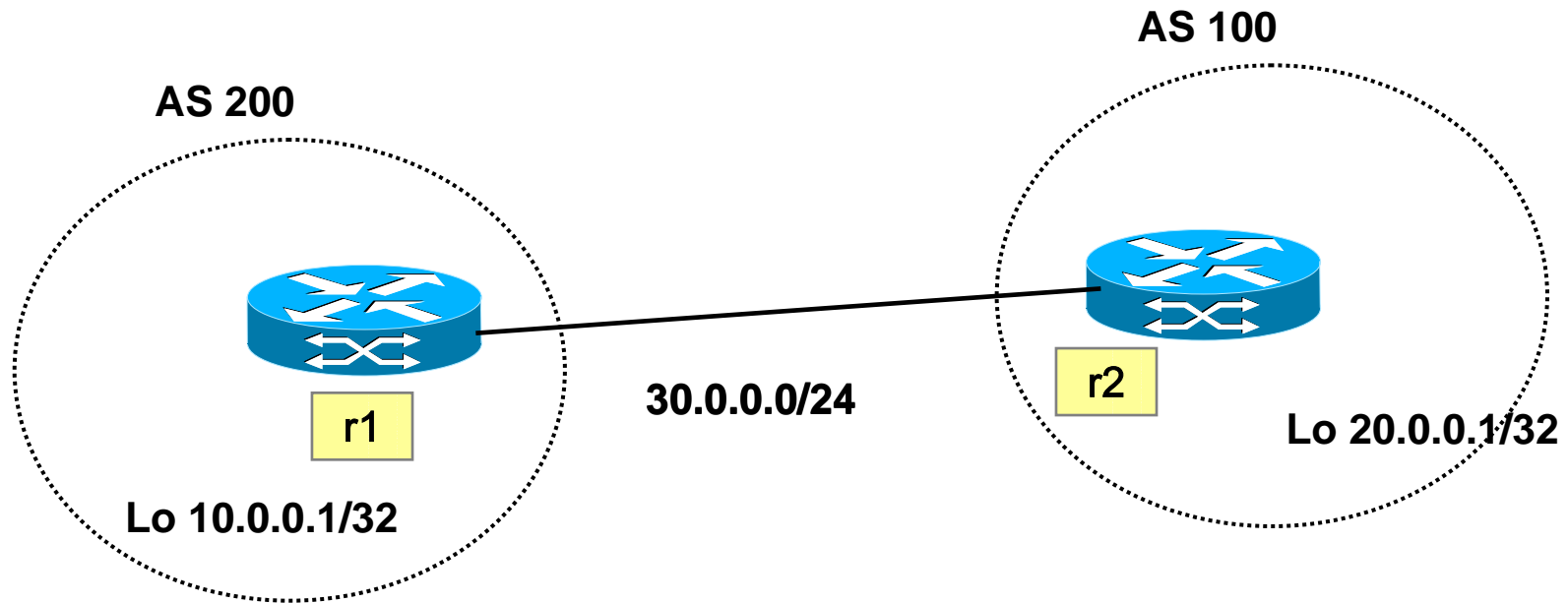




LAB 7 confederation

- Configure BGP in each routers in each AS
 - Check next-hop in r2
 - Configure confederation in each r4
 - ◆ Router(config)# router bgp 65010
 - ◆ Router(config-router)# bgp confederation identifier 300
 - ◆ Router(config-router)# neighbor <r3 ip address> remote-as 100
 - ◆ Router(config-router)# neighbor <r1 ip address> remote-as 65020
 - Configure confederation in each r1
 - ◆ Router(config)# router bgp 65010
 - ◆ Router(config-router)# bgp confederation identifier 300
 - ◆ Router(config-router)# bgp confederation peers 65020
 - ◆ Router(config-router)# neighbor <r4 ip address> remote-as 100
 - ◆ Router(config-router)# neighbor <r2 ip address> remote-as 65020
-

LAB 8 loopback and multihop





LAB 8 loopback and multihop

- Configure loopback
 - Configure static for loopback interfaces connectivity
 - Configure BGP
 - Check multihop in each router
 - ◆ Router(config-router)# neighbor 10.0.0.1 ebgp-multihop 2
 - ◆ Router(config-router)# neighbor 10.0.0.1 update-source lo0
-