

## LAB3

### S1.

```
interface range g0/1 - 2
```

```
switchport mode trunk
```

```
switchport trunk native vlan 99
```

### S2

```
interface g0/1
```

```
switchport mode trunk
```

```
switchport trunk native vlan 99
```

### S3

```
interface g0/2
```

```
switchport mode trunk
```

```
switchport trunk native vlan 99
```

## Lab4

### S1

```
vlan 10
```

```
vlan 30
```

```
interface f0/11
```

```
switchport mode access
```

```
switchport access vlan 10
```

```
interface f0/6
```

```
switchport mode access
```

```
switchport access vlan 30
```

```
interface g0/1
```

```
switchport mode trunk
```

## R1

```
Interface g0/0
```

```
no shutdown
```

```
interface g0/0.10
```

```
encapsulation dot1Q 10
```

```
ip address 172.17.10.1 255.255.255.0
```

```
no shutdown
```

```
int g0/0.30
```

```
encapsulation dot1Q 30
```

```
ip address 172.17.30.1 255.255.255.0
```

## LAB5

### S1

```
enable
```

```
config terminal
```

```
hostname S1
```

```
interface range f0/21-22
```

```
switchport mode trunk
```

```
shutdown
```

```
channel-group 1 mode desirable
```

```
no shutdown
```

```
interface port-channel 1
```

```
switchport mode trunk
```

```
interface range g0/1-2
```

```
switchport mode trunk
```

```
shutdown
```

```
channel-group 2 mode active
```

```
no shutdown
```

```
interface port-channel 2
```

```
switchport mode trunk
```

```
spanning-tree vlan 1 root primary
```

```
end
```

```
S2
```

```
enable
```

```
config terminal
```

```
hostname S2
```

```
interface range g0/1-2
```

```
switchport mode trunk
```

```
shutdown
```

```
channel-group 2 mode active
```

```
no shutdown
```

```
interface port-channel 2
```

```
switchport mode trunk
```

```
interface range f0/23-24
```

```
switchport mode trunk
```

```
shutdown
```

```
channel-group 3 mode passive
```

```
no shutdown
```

```
interface port-channel 3
```

```
switchport mode trunk
```

```
end
```

```
S3
```

```
enable
```

```
config terminal
```

```
hostname S3
```

```
interface range f0/21-22
```

```
switchport mode trunk
```

```
shutdown
```

```
channel-group 1 mode desirable
```

```
no shutdown
```

```
interface port-channel 1
switchport mode trunk
interface range f0/23-24
switchport mode trunk
shutdown
channel-group 3 mode active
no shutdown
interface port-channel 3
switchport mode trunk
end
```

## LAB6

# Not finish

## Router Edge\_Router

```
enable
config terminal
ip route 0.0.0.0 0.0.0.0 10.10.10.1
ip route 0.0.0.0 0.0.0.0 10.10.10.5 5
```

```
ipv6 route ::/0 2001:db8:a:1::1
```

```
ipv6 route ::/0 2001:db8:a:2::1 5
```

```
ip route 198.0.0.10 255.255.255.255 serial0/0/0
```

```
ip route 198.0.0.10 255.255.255.255 serial0/0/1 5
```

```
ipv6 route 2001:db8:f:f::10/128 2001:db8:a:1::1
```

```
ipv6 route 2001:db8:f:f::10/128 2001:db8:a:2::1 5
```

## Router ISP1

```
enable
```

```
config terminal
```

```
ip route 192.168.10.16 255.255.255.240 10.10.10.2
```

```
ip route 192.168.11.32 255.255.255.224 10.10.10.2
```

```
ip route 192.168.10.16 255.255.255.240 g0/0 5
```

```
ip route 192.168.11.32 255.255.255.224 g0/0 5
```

```
ipv6 route 2001:db8:1:10::/64 2001:db8:a:1::2
```

```
ipv6 route 2001:db8:1:11::/64 2001:db8:a:1::2
```

```
ipv6 route 2001:db8:1:10::/64 2001:db8:f:f::2 5
```

```
ipv6 route 2001:db8:1:11::/64 2001:db8:f:f::2 5
```

## LAB7

### R1

```
interface s0/0/0
```

```
ip ospf hello-interval 15
```

```
ip ospf dead-interval 60
```

bandwidth 64

## R2

interface s0/0/0

ip ospf hello-interval 15

ip ospf dead-interval 60

## LAB8

### P2P-1

enable

configure terminal

interface Serial0/1/1

ip ospf cost 50

interface Serial0/2/0

ip ospf hello-interval 20

ip ospf dead-interval 80

router ospf 10

auto-cost reference-bandwidth 1000

network 10.0.0.0 0.0.0.3 area 0

network 10.0.0.8 0.0.0.3 area 0

network 10.0.0.12 0.0.0.3 area 0

End

### P2P-2

enable

configure terminal

router ospf 10

log-adjacency-changes

passive-interface GigabitEthernet0/0/0

passive-interface GigabitEthernet0/0/1

auto-cost reference-bandwidth 1000

network 10.0.0.0 0.0.0.3 area 0

network 10.0.0.4 0.0.0.3 area 0

network 192.168.1.0 0.0.0.255 area 0

network 192.168.2.0 0.0.0.255 area 0

end

## P2P-3

enable

configure terminal

!

router ospf 10

log-adjacency-changes

passive-interface GigabitEthernet0/0/0

auto-cost reference-bandwidth 1000

network 10.0.0.4 0.0.0.3 area 0



```
network 10.0.0.8 0.0.0.3 area 0
network 192.168.3.0 0.0.0.15 area 0
end
```

## BC-1

```
enable
configure terminal
interface GigabitEthernet0/0/0
ip ospf priority 255
ip ospf 10 area 0
interface Serial0/1/0
ip ospf hello-interval 20
ip ospf dead-interval 80
ip ospf 10 area 0
router ospf 10
router-id 6.6.6.6
passive-interface Serial0/1/1
auto-cost reference-bandwidth 1000
default-information originate
ip route 0.0.0.0 0.0.0.0 Serial0/1/1
end
```

## BC-2

enable

configure terminal

interface GigabitEthernet0/0/0

ip ospf 10 area 0

interface GigabitEthernet0/0/1

ip ospf 10 area 0

router ospf 10

router-id 5.5.5.5

passive-interface GigabitEthernet0/0/0

auto-cost reference-bandwidth 1000

end

### BC-3

enable

configure terminal

interface GigabitEthernet0/0/0

ip ospf 10 area 0

interface GigabitEthernet0/0/1

ip ospf 10 area 0

router ospf 10

router-id 4.4.4.4

passive-interface GigabitEthernet0/0/0

```
auto-cost reference-bandwidth 1000
```

```
end
```

## Router R1

```
enable
```

```
configure terminal
```

```
ip access-list standard BRANCH-OFFICE-POLICY
```

```
permit host 192.168.30.3
```

```
permit 192.168.40.0 0.0.0.255
```

```
interface g0/0/0
```

```
ip access-group BRANCH-OFFICE-POLICY out
```

```
ip access-list standard BRANCH-OFFICE-POLICY
```

```
30 permit 209.165.200.224 0.0.0.31
```

```
40 deny any
```

```
end
```

## Router R3

```
enable
```

```
configure terminal
```

```
access-list 1 remark Allow R1 LANs Access
```

```
access-list 1 permit 192.168.10.0 0.0.0.255
```

```
access-list 1 permit 192.168.20.0 0.0.0.255
```

```
access-list 1 deny any
```

```
interface g0/0/0  
  
ip access-group 1 out  
  
end
```

## LAB10

### Router R1

```
enable  
  
configure terminal  
  
access-list 100 permit tcp 172.22.34.64 0.0.0.31 host 172.22.34.62 eq ftp  
  
access-list 100 permit icmp 172.22.34.64 0.0.0.31 host 172.22.34.62  
  
interface gigabitEthernet 0/0  
  
ip access-group 100 in  
  
ip access-list extended HTTP_ONLY  
  
permit tcp 172.22.34.96 0.0.0.15  
  
permit tcp 172.22.34.96 0.0.0.15 host 172.22.34.62 eq www  
  
permit icmp 172.22.34.96 0.0.0.15 host 172.22.34.62  
  
interface gigabitEthernet 0/1  
  
ip access-group HTTP_ONLY in
```

## LAB11

### Router RT1

```
enable  
  
configure terminal
```

```
ip access-list extended ACL
```

```
deny tcp host 172.31.1.101 host 64.101.255.254 eq www
```

```
deny tcp host 172.31.1.101 host 64.101.255.254 eq 443
```

```
deny tcp host 172.31.1.101 host 64.103.255.254 eq www
```

```
deny tcp host 172.31.1.101 host 64.103.255.254 eq 443
```

```
deny tcp host 172.31.1.102 host 64.101.255.254 eq ftp
```

```
deny tcp host 172.31.1.102 host 64.103.255.254 eq ftp
```

```
deny icmp host 172.31.1.103 host 64.101.255.254
```

```
deny icmp host 172.31.1.103 host 64.103.255.254
```

```
permit ip any any
```

```
interface GigabitEthernet0/0
```

```
ip access-group ACL in
```

```
end
```

```
Optional1
```

```
R1
```

```
enable
```

```
config t
```

```
interface g0/0
```

```
ip helper-address 10.1.1.2
```

R2

enable

config t

ip dhcp excluded-address 192.168.10.1 192.168.10.10

ip dhcp excluded-address 192.168.30.1 192.168.30.10

ip dhcp pool R1-LAN

network 192.168.10.0 255.255.255.0

default-router 192.168.10.1

dns-server 192.168.20.254

ip dhcp pool R3-LAN

network 192.168.30.0 255.255.255.0

default-router 192.168.30.1

dns-server 192.168.20.254

interface g0/1

ip address dhcp

no shutdown

R3

enable

config t

interface g0/0

ip helper-address 10.2.2.2

Opinional 2

Opinional3

## Router R1

enable

config t

interface g0/1

standby version 2

standby 1 ip 192.168.1.254

standby 1 priority 150

standby 1 preempt

end

## Router R3

```
enable
```

```
config t
```

```
interface g0/0
```

```
standby version 2
```

```
standby 1 ip 192.168.1.254
```

```
end
```

```
Sw1
```

```
enable
```

```
config t
```

```
ip default-gateway 192.168.1.254
```

```
end
```

```
SW3
```

```
enable
```

```
config t
```

```
ip default-gateway 192.168.1.254
```

```
End
```



```
enable
```

```
config t
```

```
interface g0/0
```

```
No standby version 2
```

```
No standby 1 ip 192.168.1.254
```

```
end
```