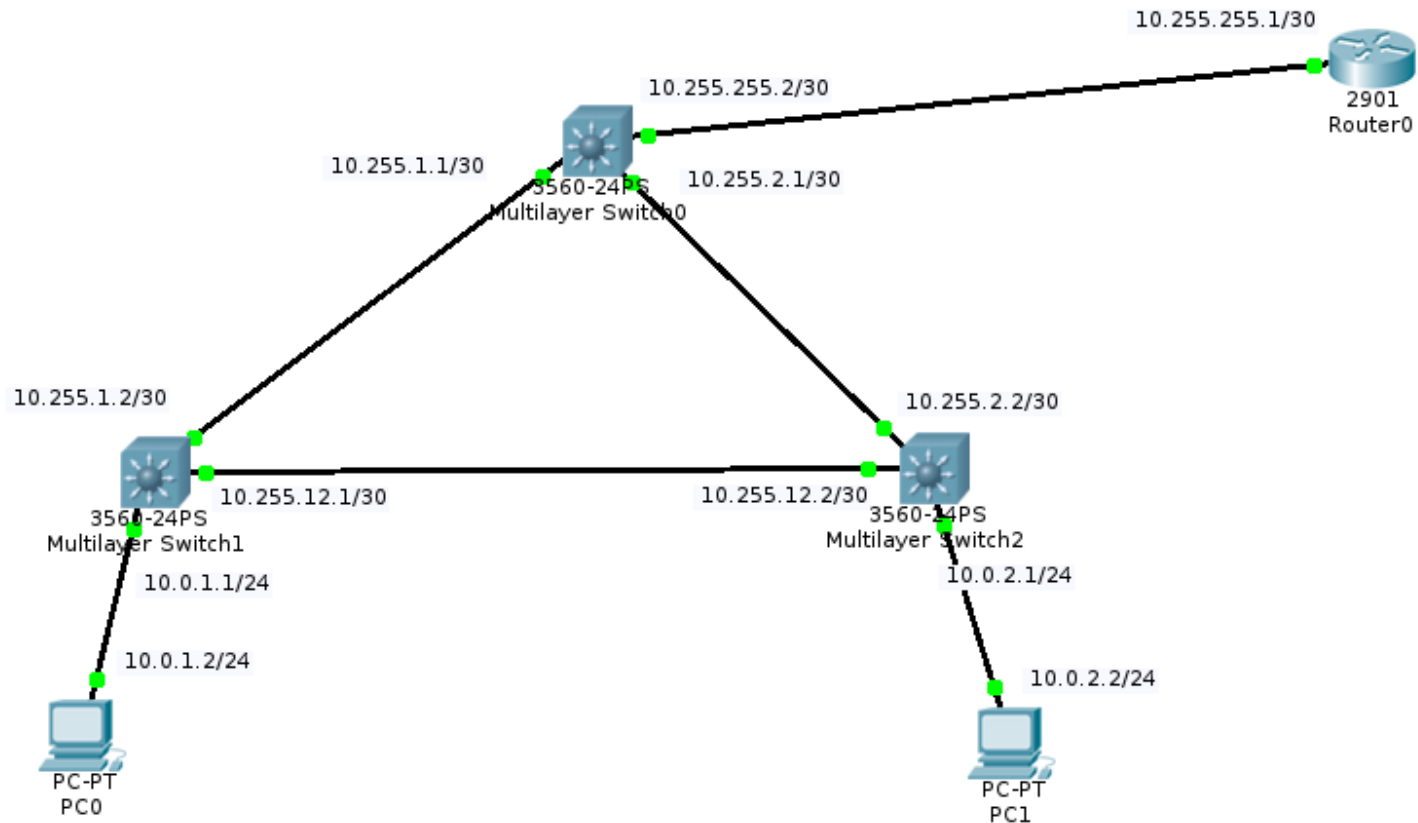


OSPF – příklad



OSPF – príklad

```
sw1(config)#ip routing
```

```
sw1(config)#interface GigabitEthernet 0/1
```

```
sw1(config-if)#no switchport
```

```
sw1(config-if)#ip address 10.255.1.2 255.255.255.252
```

```
sw1(config-if)#exit
```

```
sw1(config)#interface GigabitEthernet 0/2
```

```
sw1(config-if)#no switchport
```

```
sw1(config-if)#ip address 10.255.12.1 255.255.255.252
```

```
sw1(config-if)#exit
```

```
sw1(config)#interface Vlan 1
```

```
sw1(config-if)#ip address 10.0.1.1 255.255.255.0
```

```
sw1(config-if)#no shutdown
```

OSPF – příklad

```
sw2(config)#ip routing
sw2(config)#interface GigabitEthernet 0/1
sw2(config-if)#no switchport
sw2(config-if)#ip address 10.255.2.2 255.255.255.252
sw2(config-if)#exit
sw2(config)#interface GigabitEthernet 0/2
sw2(config-if)#no switchport
sw2(config-if)#ip address 10.255.12.2 255.255.255.252
sw2(config-if)#exit
sw2(config)#interface Vlan 1
sw2(config-if)#ip address 10.0.2.1 255.255.255.0
sw2(config-if)#no shutdown
```

OSPF – príklad

```
sw0(config)#ip routing
```

```
sw0(config)#interface GigabitEthernet 0/1
```

```
sw0(config-if)#no switchport
```

```
sw0(config-if)#ip address 10.255.1.1 255.255.255.252
```

```
sw0(config-if)#exit
```

```
sw0(config)#interface GigabitEthernet 0/2
```

```
sw0(config-if)#no switchport
```

```
sw0(config-if)#ip address 10.255.2.1 255.255.255.252
```

```
sw0(config-if)#exit
```

```
sw0(config)#interface FastEthernet 0/1
```

```
sw0(config-if)#no switchport
```

```
sw0(config-if)#ip address 10.255.255.2 255.255.255.252
```

```
sw0(config-if)#exit
```

OSPF – príklad

```
sw1(config)#router ospf 1
```

```
sw1(config-router)#router-id 10.0.1.1
```

```
sw1(config-router)#network 10.255.1.0 0.0.0.3 area 0
```

```
sw1(config-router)#network 10.255.12.0 0.0.0.3 area 0
```

```
sw1(config-router)#redistribute connected subnets
```

```
sw1(config-router)#exit
```

OSPF – príklad

```
sw2(config)#router ospf 1
```

```
sw2(config-router)#router-id 10.0.2.1
```

```
sw2(config-router)#network 10.255.2.0 0.0.0.3 area 0
```

```
sw2(config-router)#network 10.255.12.0 0.0.0.3 area 0
```

```
sw2(config-router)#redistribute connected subnets
```

```
sw2(config-router)#exit
```

OSPF – príklad

```
sw0(config)#router ospf 1
```

```
sw0(config-router)#router-id 10.255.1.1
```

```
sw0(config-router)#network 10.255.1.0 0.0.0.3 area 0
```

```
sw0(config-router)#network 10.255.2.0 0.0.0.3 area 0
```

```
sw0(config-router)#default-information originate
```

```
sw0(config-router)#exit
```

```
sw0(config)#ip route 0.0.0.0 0.0.0.0 10.255.255.1
```

OSPF – příklad

```
sw1#show ip route
```

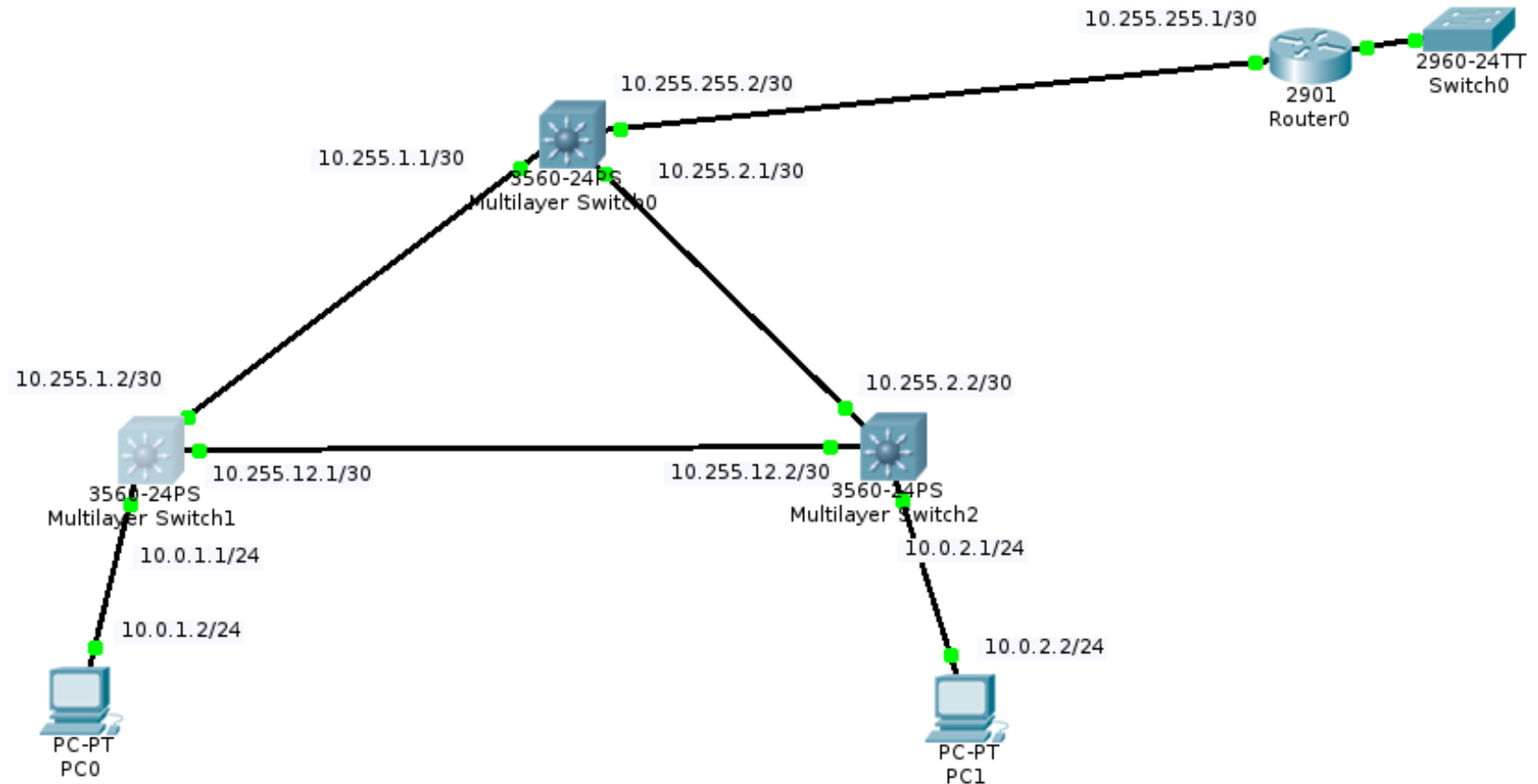
```
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP  
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP  
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area  
       * - candidate default, U - per-user static route, o - ODR  
       P - periodic downloaded static route
```

```
Gateway of last resort is 10.255.1.1 to network 0.0.0.0
```

```
10.0.0.0/8 is variably subnetted, 5 subnets, 2 masks
```

```
C      10.0.1.0/24 is directly connected, Vlan1  
O E2   10.0.2.0/24 [110/20] via 10.255.12.2, 00:16:50, GigabitEthernet0/2  
C      10.255.1.0/30 is directly connected, GigabitEthernet0/1  
O      10.255.2.0/30 [110/2] via 10.255.1.1, 00:12:21, GigabitEthernet0/1  
                [110/2] via 10.255.12.2, 00:12:21, GigabitEthernet0/2  
C      10.255.12.0/30 is directly connected, GigabitEthernet0/2  
O*E2  0.0.0.0/0 [110/1] via 10.255.1.1, 00:07:20, GigabitEthernet0/1
```


BGP – príklad



BGP – příklad

```
sw0(config)#router ospf 1
```

```
sw0(config-router)#redistribute bgp 2 subnets
```

```
sw0(config)#router bgp 2
```

```
sw0(config-router)#neighbor 10.255.255.1 remote-as 1
```

```
sw0(config-router)#network 10.0.1.0 mask 255.255.255.0
```

```
sw0(config-router)#network 10.0.2.0 mask 255.255.255.0
```

BGP – příklad

```
Router(config)#ip route 0.0.0.0 0.0.0.0 1.2.3.1
```

```
Router(config)#router bgp 1
```

```
Router(config-router)#neighbor 10.255.255.2 remote-as 2
```

```
Router(config-router)#redistribute static
```

BGP – příklad

```
Router#sh ip route
```

```
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
```

```
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
```

```
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

```
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
```

```
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
```

```
* - candidate default, U - per-user static route, o - ODR
```

```
P - periodic downloaded static route
```

```
Gateway of last resort is 1.2.3.1 to network 0.0.0.0
```

```
1.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
```

```
C    1.2.3.0/24 is directly connected, GigabitEthernet0/1
```

```
L    1.2.3.4/32 is directly connected, GigabitEthernet0/1
```

```
10.0.0.0/8 is variably subnetted, 4 subnets, 3 masks
```

```
B    10.0.1.0/24 [20/0] via 10.255.255.2, 00:09:05
```

```
B    10.0.2.0/24 [20/0] via 10.255.255.2, 00:09:05
```

```
C    10.255.255.0/30 is directly connected, GigabitEthernet0/0
```

```
L    10.255.255.1/32 is directly connected, GigabitEthernet0/0
```

```
S*   0.0.0.0/0 [1/0] via 1.2.3.1
```

BGP – příklad

```
sw0#sh ip route
```

```
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP  
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP  
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area  
* - candidate default, U - per-user static route, o - ODR  
P - periodic downloaded static route
```

```
Gateway of last resort is 10.255.255.1 to network 0.0.0.0
```

```
* 0.0.0.0/32 is subnetted, 1 subnets  
B* 0.0.0.0 [20/0] via 10.255.255.1, 00:10:06  
10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks  
O 10.0.1.0/24 [110/2] via 10.255.1.2, 00:09:16, GigabitEthernet0/1  
O 10.0.2.0/24 [110/2] via 10.255.2.2, 00:09:16, GigabitEthernet0/2  
C 10.255.1.0/30 is directly connected, GigabitEthernet0/1  
C 10.255.2.0/30 is directly connected, GigabitEthernet0/2  
O 10.255.12.0/30 [110/2] via 10.255.2.2, 00:09:16, GigabitEthernet0/2  
[110/2] via 10.255.1.2, 00:09:16, GigabitEthernet0/1  
C 10.255.255.0/30 is directly connected, FastEthernet0/1
```

BGP – příklad

```
sw1#sh ip route
```

```
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP  
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP  
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area  
* - candidate default, U - per-user static route, o - ODR  
P - periodic downloaded static route
```

```
Gateway of last resort is 10.255.1.1 to network 0.0.0.0
```

```
* 0.0.0.0/32 is subnetted, 1 subnets  
O*E2 0.0.0.0 [110/1] via 10.255.1.1, 00:09:59, GigabitEthernet0/1  
10.0.0.0/8 is variably subnetted, 5 subnets, 2 masks  
C 10.0.1.0/24 is directly connected, Vlan1  
O 10.0.2.0/24 [110/2] via 10.255.12.2, 00:09:59, GigabitEthernet0/2  
C 10.255.1.0/30 is directly connected, GigabitEthernet0/1  
O 10.255.2.0/30 [110/2] via 10.255.12.2, 00:09:59, GigabitEthernet0/2  
[110/2] via 10.255.1.1, 00:09:59, GigabitEthernet0/1  
C 10.255.12.0/30 is directly connected, GigabitEthernet0/2
```