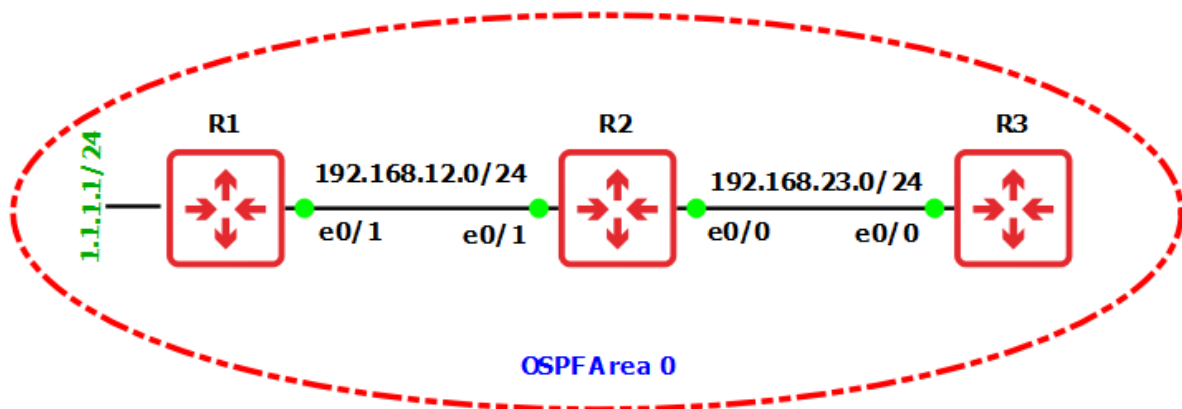


Distribute Lists:

- o Distribute-List is used to control routing updates either coming to router or leaving.
 - o Distribute-List is mainly used for route filtering to control Routing updates coming in.
 - o We use Distribute Lists, means to permit or block the routes from being advertised.
 - o Distribute-List itself does not block or permit any route but it will call an Access-List.
 - o Or Prefix-List and action will be taken based on whatever specified in that Access-List.
 - o So, a Distribute-List is used to control the incoming or outgoing traffic in the devices.
 - o Distribute List can be configured in two directions, for in (coming) or out (leaving).
 - o The distribute list command will be run in router configuration mode under OSPF.
 - o With OSPF, access-lists, prefix-lists, and route-maps are all options of a distribute list.
1. Define what routes you want to filter.
 2. Create an ACL to filter out that traffic.
 3. Create a Distribute-List that references the ACL and defines the direction.
 4. Verify that the route has been removed.



R1 IP Address Configuration

```
R1(config)#interface e0/1
R1(config-if)#ip add 192.168.12.1 255.255.255.0
R1(config-if)#no shutdown
R1(config)#interface loopback1
R1(config-if)#ip add 1.1.1.1 255.255.255.255
```

R2 IP Address Configuration

```
R2(config)#interface e0/1
R2(config-if)#ip add 192.168.12.2 255.255.255.0
R2(config-if)#no shutdown
```

```
R2(config)#interface e0/0
R2(config-if)#ip add 192.168.23.2 255.255.255.0
R2(config-if)#no shutdown
```

R3 IP Address Configuration

```
R3(config)#interface e0/0
R3(config-if)#ip add 192.168.23.3 255.255.255.0
R3(config-if)#no shutdown
```

R1 OSPF Configuration

```
R1(config)#router ospf 1
R1(config-router)#network 1.1.1.0 0.0.0.255 area 0
R1(config-router)#network 192.168.12.0 0.0.0.255 area 0
```

R2 OSPF Configuration

```
R2(config)#router ospf 1
R2(config-router)#network 192.168.12.0 0.0.0.255 area 0
R2(config-router)#network 192.168.23.0 0.0.0.255 area 0
```

R3 OSPF Configuration

```
R3(config)#router ospf 1
R3(config-router)#network 192.168.23.0 0.0.0.255 area 0
```

R3 Filter Configuration

```
R3(config)#ip access-list standard Block
R3(config-std-nacl)#deny host 1.1.1.1
R3(config-std-nacl)#permit any
```

```
R3(config-std-nacl)#router ospf 1
R3(config-router)#distribute-list Block in
```