

Static Route

Static routing on a switch is a manually configured route that tells the device how to reach a specific network. It doesn't automatically update and is suitable for small or simple networks because the switch doesn't need to learn or calculate routes.

Topology:

Pre-configuration:

Binding IP addresses on switches.(refer to [Edgecore SONiC] Management and front-port IPv4 IPv6 Address)

Procedure:

Step 1. Configure static route on both switches

Router A:

```
admin@Router-A:~$ sudo config route add prefix 192.168.20.0/24 nexthop 10.0.0.1
```

Router B:

```
admin@Router-B:~$ sudo config route add prefix 192.168.10.0/24 nexthop 10.0.0.0
```

Result

Check the route table

Router A:

```
admin@Router-A:~$ show ip route
```

```
Codes: K - kernel route, C - connected, S - static, R - RIP,  
        O - OSPF, I - IS-IS, B - BGP, E - EIGRP, N - NHRP,  
        T - Table, v - VNC, V - VNC-Direct, A - Babel, D - SHARP,  
        F - PBR, f - OpenFabric,  
        - selected route, * - FIB route, q - queued route, r - rejected route
```

```
K*0.0.0.0/0 [0/0] via 188.188.1.1, eth0, 01:30:34  
C*10.0.0.0/31 is directly connected, Ethernet0, 00:07:03  
K*10.0.0.0/32 [0/0] is directly connected, Ethernet0, 00:07:03  
C*188.188.0.0/16 is directly connected, eth0, 01:30:34  
C*192.168.10.0/24 is directly connected, Ethernet1, 01:16:22  
K*192.168.10.254/32 [0/0] is directly connected, Ethernet1, 01:16:22  
S*192.168.20.0/24 [1/0] via 10.0.0.1, Ethernet0, 00:06:38
```

Router B:

```
admin@Router-B:~$ show ip route
```

```
Codes: K - kernel route, C - connected, S - static, R - RIP,  
        O - OSPF, I - IS-IS, B - BGP, E - EIGRP, N - NHRP,  
        T - Table, v - VNC, V - VNC-Direct, A - Babel, D - SHARP,  
        F - PBR, f - OpenFabric,  
        - selected route, * - FIB route, q - queued route, r - rejected route
```

```
K*0.0.0.0/0 [0/0] via 188.188.1.1, eth0, 01:32:25  
C*10.0.0.0/31 is directly connected, Ethernet0, 00:07:03  
K*10.0.0.1/32 [0/0] is directly connected, Ethernet0, 00:07:03  
C*188.188.0.0/16 is directly connected, eth0, 01:32:25  
S*192.168.10.0/24 [1/0] via 10.0.0.0, Ethernet0, 00:00:05  
C*192.168.20.0/24 is directly connected, Ethernet1, 01:16:22  
K*192.168.20.254/32 [0/0] is directly connected, Ethernet1, 01:16:22  
Ping from PC-A to PC-B
```