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Introduction

This document describes how to configure the tracking of static route using IP Service Level Agreement (SLA).

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Prerequisites

Requirements

Cisco recommends that you have knowledge of static routing.

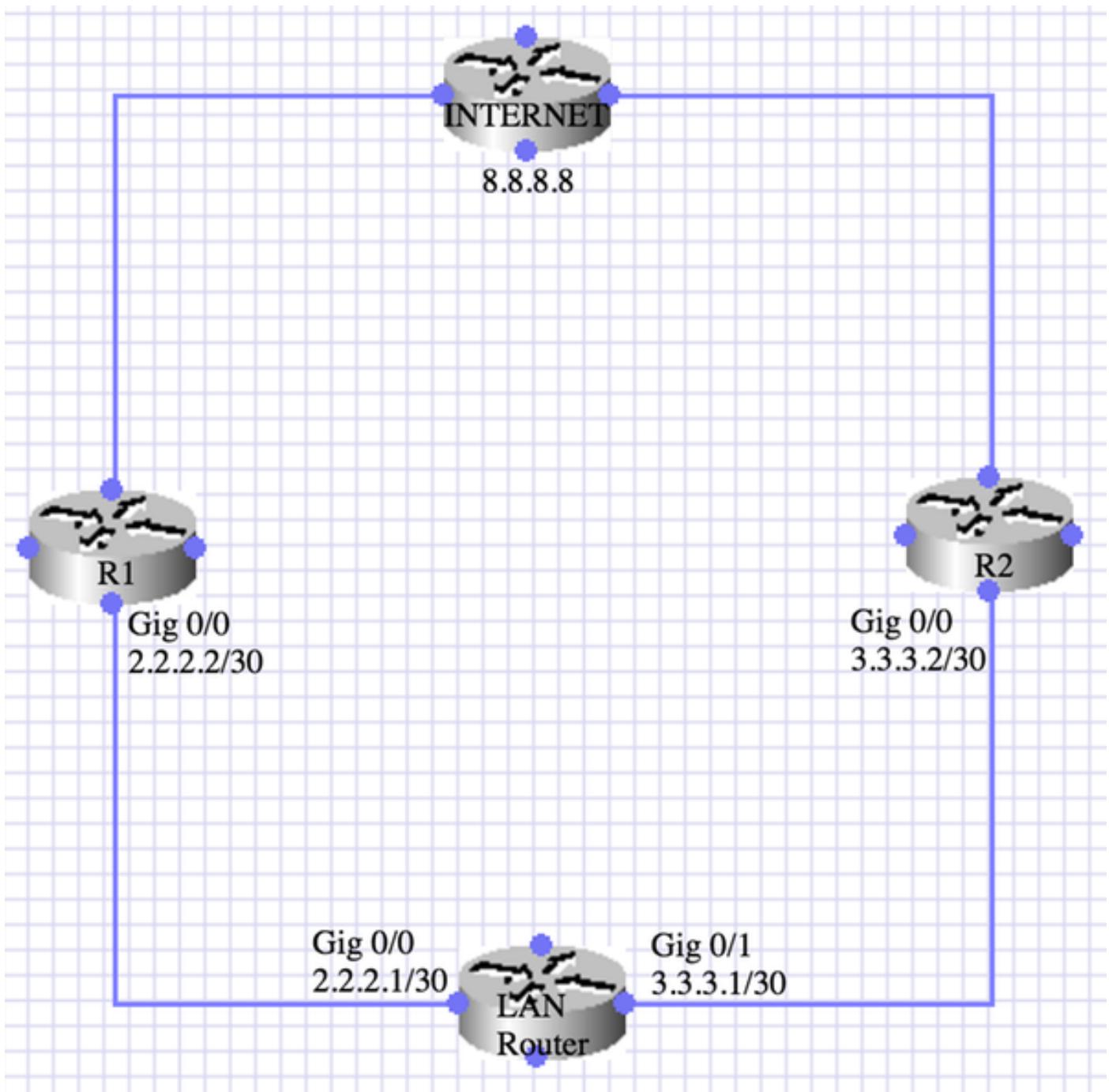
Components Used

The information in this document is based on Cisco IOS® Software Release 15.2(4)M4

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Configure

Network Diagram



Configurations

LAN Router

When track 1 is up traffic to internet goes from Primary Router R1.

```
LAN#show 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
      i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP
      + - replicated route, % - next hop override
```

Gateway of last resort is 2.2.2.2 to network 0.0.0.0

```

S* 0.0.0.0/0 [1/0] via 2.2.2.2
 2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C     2.2.2.0/30 is directly connected, GigabitEthernet0/0
L     2.2.2.1/32 is directly connected, GigabitEthernet0/0
 3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C     3.3.3.0/30 is directly connected, GigabitEthernet0/1
L     3.3.3.1/32 is directly connected, GigabitEthernet0/1
 20.0.0.0/30 is subnetted, 1 subnets
S       20.20.20.0 [1/0] via 2.2.2.2LAN#show 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
       i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP
       + - replicated route, % - next hop override

```

Gateway of last resort is 2.2.2.2 to network 0.0.0.0

```

S* 0.0.0.0/0 [1/0] via 2.2.2.2
 2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C     2.2.2.0/30 is directly connected, GigabitEthernet0/0
L     2.2.2.1/32 is directly connected, GigabitEthernet0/0
 3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C     3.3.3.0/30 is directly connected, GigabitEthernet0/1
L     3.3.3.1/32 is directly connected, GigabitEthernet0/1
 20.0.0.0/30 is subnetted, 1 subnets
S       20.20.20.0 [1/0] via 2.2.2.2LAN#show 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
       i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP
       + - replicated route, % - next hop override

```

Gateway of last resort is 2.2.2.2 to network 0.0.0.0

```

S* 0.0.0.0/0 [1/0] via 2.2.2.2
 2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C     2.2.2.0/30 is directly connected, GigabitEthernet0/0
L     2.2.2.1/32 is directly connected, GigabitEthernet0/0
 3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C     3.3.3.0/30 is directly connected, GigabitEthernet0/1
L     3.3.3.1/32 is directly connected, GigabitEthernet0/1
 20.0.0.0/30 is subnetted, 1 subnets
S       20.20.20.0 [1/0] via 2.2.2.2

```

Verify

Use this section in order to confirm that your configuration works properly.

Ping and traceroute goes to internet from Primary router

```

LAN#show 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
       i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP
       + - replicated route, % - next hop override

```

ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is 2.2.2.2 to network 0.0.0.0

S* 0.0.0.0/0 [1/0] via 2.2.2.2
2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 2.2.2.0/30 is directly connected, GigabitEthernet0/0
L 2.2.2.1/32 is directly connected, GigabitEthernet0/0
3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 3.3.3.0/30 is directly connected, GigabitEthernet0/1
L 3.3.3.1/32 is directly connected, GigabitEthernet0/1
20.0.0.0/30 is subnetted, 1 subnets
S 20.20.20.0 [1/0] via 2.2.2.2

In case of any Issue in primary link will bring down the track 1.

LAN#show 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
i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is 2.2.2.2 to network 0.0.0.0

S* 0.0.0.0/0 [1/0] via 2.2.2.2
2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 2.2.2.0/30 is directly connected, GigabitEthernet0/0
L 2.2.2.1/32 is directly connected, GigabitEthernet0/0
3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 3.3.3.0/30 is directly connected, GigabitEthernet0/1
L 3.3.3.1/32 is directly connected, GigabitEthernet0/1
20.0.0.0/30 is subnetted, 1 subnets
S 20.20.20.0 [1/0] via 2.2.2.2

When track 1 goes down traffic goes from secondary router R2

LAN#show 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
i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is 3.3.3.2 to network 0.0.0.0

S* 0.0.0.0/0 [10/0] via 3.3.3.2
2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 2.2.2.0/30 is directly connected, GigabitEthernet0/0
L 2.2.2.1/32 is directly connected, GigabitEthernet0/0
3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 3.3.3.0/30 is directly connected, GigabitEthernet0/1
L 3.3.3.1/32 is directly connected, GigabitEthernet0/1
20.0.0.0/30 is subnetted, 1 subnets
S 20.20.20.0 [1/0] via 2.2.2.2

LAN#show 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
i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is 3.3.3.2 to network 0.0.0.0

S* 0.0.0.0/0 [10/0] via 3.3.3.2
2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 2.2.2.0/30 is directly connected, GigabitEthernet0/0
L 2.2.2.1/32 is directly connected, GigabitEthernet0/0
3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 3.3.3.0/30 is directly connected, GigabitEthernet0/1
L 3.3.3.1/32 is directly connected, GigabitEthernet0/1
20.0.0.0/30 is subnetted, 1 subnets
S 20.20.20.0 [1/0] via 2.2.2.2#show 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
i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is 3.3.3.2 to network 0.0.0.0

S* 0.0.0.0/0 [10/0] via 3.3.3.2
2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 2.2.2.0/30 is directly connected, GigabitEthernet0/0
L 2.2.2.1/32 is directly connected, GigabitEthernet0/0
3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 3.3.3.0/30 is directly connected, GigabitEthernet0/1
L 3.3.3.1/32 is directly connected, GigabitEthernet0/1
20.0.0.0/30 is subnetted, 1 subnets
S 20.20.20.0 [1/0] via 2.2.2.2

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.