# Exclude Routes from Redistributing into OMP

## Contents

## Introduction

This document describes how to exclude unwanted routes from being redistributed into Overlay Management Protocol (OMP).

## Prerequisites

### Requirements

Cisco recommends knowledge of these topics:

- Cisco Software-Defined Wide Area Network (SD-WAN)

- Routing

### Components Used

The information in this document is based on these software and hardware versions:

- Cisco vManage version 20.6.5.2
- Cisco WAN Edge Router 17.6.3a

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, ensure that you understand the potential impact of any command.

## Configurations

By default Connected, Static, OSPF Inter Area as well OSPF Intra Area are redistributed into OMP.

### Localized Policy + CLI Add-On Template

In this use case, you do not want to redistribute one of the connected routes in vrf 1. By default all connected routes are redistributed into OMP, this use case helps filter a particular connected prefix.

1. Localized policy

Create a new Prefix list under custom options of Localized policy: Prefix is required to know which route needs to be redistributed.

Localized Policy > Define Lists

Select a list type on the left and start creating your groups of interest

| | | | |
|---|---|---|---|
| AS Path | | | |
| Community | ⊕ New Prefix List | | |
| Data Prefix | | | Internet P |
| Extended Community | Name | Entries | |
| Class Map | Loopback2_allow | 192.168.50.2/32 | IPv4 |
| Mirror | | | |
| Policer | | | |
| Prefix | | | |
| VPN | | | |

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Create a route policy and apply it towards localized policy: Match the prefix created earlier and set action as **Accept**. Route policy is translated into route-map once it is pushed to WAN Edge device.

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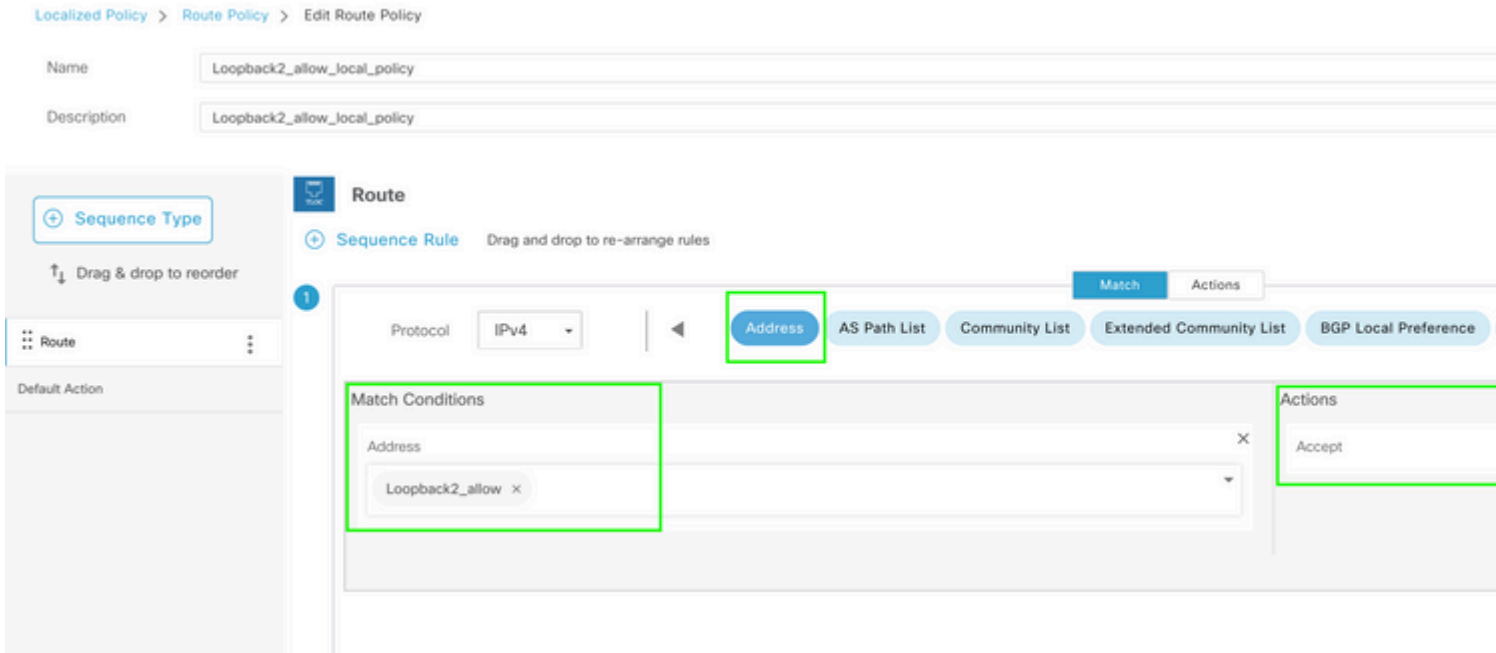
Default action must be **Reject** since the need is to redistribute the prefix that was created earlier.



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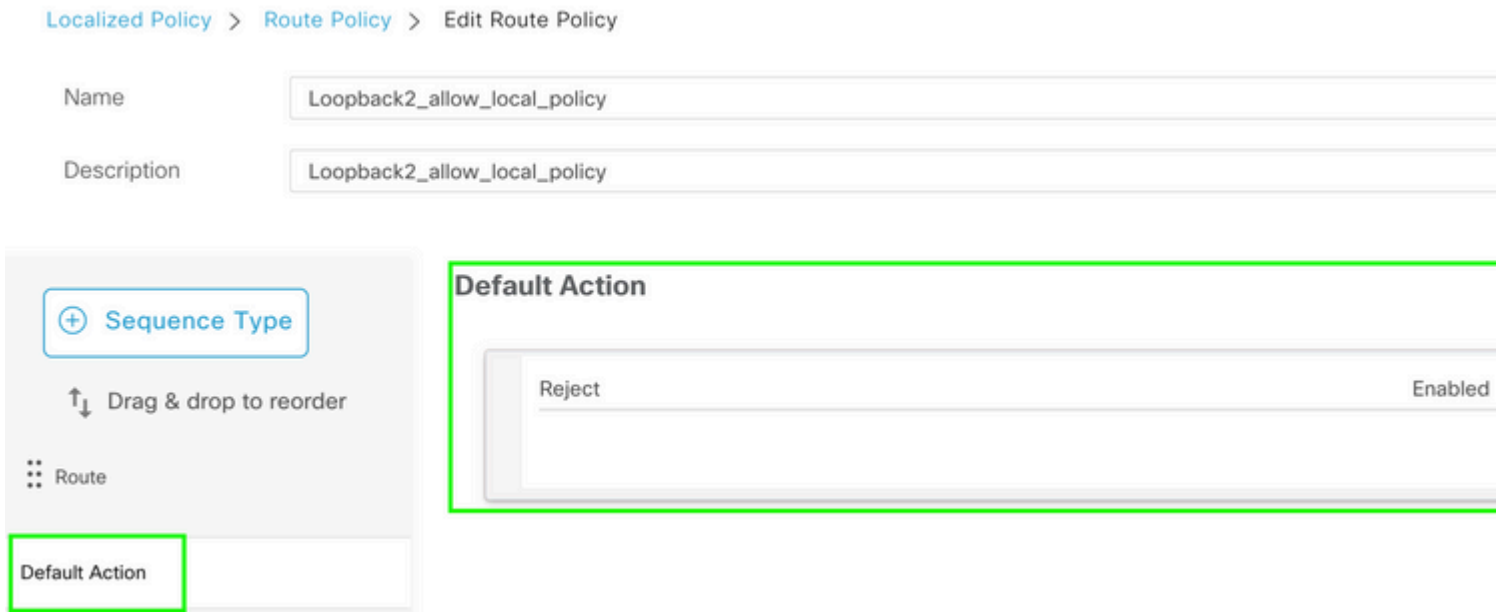
Preview: This is how the configuration looks once localized policy is created.

# Policy Configuration Preview

```
policy
  route-policy Loopback2_allow_local_policy
     sequence 1
      match
       address Loopback2_allow
      !
      action accept
      !
     !
   default-action reject
  !
  lists
   prefix-list Loopback2_allow
     ip-prefix 192.168.50.2/32
   !
  !
!
```

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2. Use CLI Add-On Template.

Ensure to create a CLI Add-On template to map the route-map created earlier under OMP, since there is no option to map it under OMP feature template.

Device Type           C1111X-8P

Template Name        C1111X-8P_CLI

Description             C1111X-8P_CLI

CLI add-on template is supported with IOS XE 17.2.1

∨ CLI CONFIGURATION

```
1  sdwan  omp  address-family ipv4 vrf 1
2  advertise  connected  route-map Loopback2_allow_local_policy
```

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Attach the created localized policy and CLI Add-On Template to Device Template.

## CLI Add-On Template

1. In this use case, you want to redistribute an OSPF Internal route and not an OSPF External route. Be default, OSPF Internal routes are redistributed into OMP, this use case helps filter a particular OSPF prefix.

To limit only OSPF Internal routes on vrf 1 being redistributed to OMP, subject it to route-map, and define a route-map which matches on type OSPF internal. Route-map configuration is done via CLI Add-On template.

Device Type                ASR1001-X

Template Name              ASR1001-X_CLI_Allow_internal

Description                ASR1001-X_CLI_Allow_internal

CLI add-on template is supported with IO

## ∨ CLI CONFIGURATION

```
1  route-map internal_allow permit 10
2  match route-type internal
3  !
4  sdwan omp
5  address-family ipv4 vrf 1
6  advertise ospf route-map internal_allow external
```

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Attach CLI Add On Template to Device Template.

## Additional Templates

| | |
|---|---|
| **AppQoE** | Choose... |
| **Global Template \*** | ASR1001-X_Global (i) |
| **Cisco Banner** | Choose... |
| **Cisco SNMP** | Choose... |
| **TrustSec** | Choose... |
| **CLI Add-On Template** | ASR1001-X_CLI_Allow_internal |
| **Policy** | Choose... |
| **Probes** | Choose... |
| **Security Policy** | Choose... |

2. In this use case, you want to redistribute an OSPF External route and not an OSPF Internal route. By default, OSPF External routes are not redistributed into OMP, this use case helps filter a particular OSPF prefix.

To limit only OSPF external routes on vrf 1 being redistributed to OMP, subject it to route-map, and define a route-map which matches on type OSPF external. Route-map configuration is done via CLI Add-On template.

Device Type       ASR1001-X

Template Name       ASR1001-X_CLI_Allow_external

Description       ASR1001-X_CLI_Allow_external

CLI add-on template is supported with IO

## ⌄ CLI CONFIGURATION

```
1  route-map external_allow permit 10
2  match route-type external
3  !
4  sdwan omp
5  address-family ipv4 vrf 1
6  advertise ospf route-map external_allow external
```

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Attach CLI Add On Template to Device Template.

## Centralized Control Policy

1. In this use case, you want a specific route 192.168.50.2/32 not to be received on two destination sites with Site ID 10 and 100.

Create site list under custom options of Centralized Policy: Site list is needed to know on which sites route must not be received.

Select a list type on the left and start creating your groups of interest

| | | | | |
|---|---|---|---|---|
| Application | ⊕ New Site List | | | |
| Color | | | | |
| Community | **Name** | **Entries** | **Reference Count** | **Updated By** | **Last Updated** |
| Data Prefix | BRANCH | 5, 10, 15, 20, 30, 35 | 2 | admin | 07 May 2023 2:51:18 PM CDT |
| Policer | HUB_DC_Site_50 | 50 | 2 | admin | 07 May 2023 2:49:52 PM CDT |
| Prefix | HUB_DC_Site_40 | 40 | 0 | admin | 07 May 2023 2:50:04 PM CDT |
| Site | | | | | |
| App Probe Class | test_route_map | 100 | 2 | admin | 14 Jul 2023 2:17:15 PM CDT |
| SLA Class | Branch_Block_Traffic | 10, 100 | 1 | admin | 15 Jul 2023 4:57:49 PM CDT |
| TLOC | | | | | |
| VPN | | | | | |

Create a new Prefix list under custom options of Centralized policy: Prefix is required to know which route does not need to be received.

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Select a list type on the left and start creating your groups of interest

| | | | | | |
|---|---|---|---|---|---|
| Application | ⊕ New Prefix List | | | | |
| Color | | | | | |
| Community | **Name** | **Entries** | **Internet Protocol** | **Reference Count** | **Updated By** | **Last Updated** |
| Data Prefix | Loopback2_allow | 192.168.50.2/32 | IPv4 | 2 | admin | 12 Jul 2023 |
| Policer | | | | | | |
| Prefix | Loopback2_Block | 192.168.50.2/32 | IPv4 | 1 | admin | 15 Jul 2023 |
| Site | | | | | | |
| App Probe Class | | | | | | |
| SLA Class | | | | | | |
| TLOC | | | | | | |
| VPN | | | | | | |

Create a topology under custom options of centralized policy with custom control (Route & TLOC).
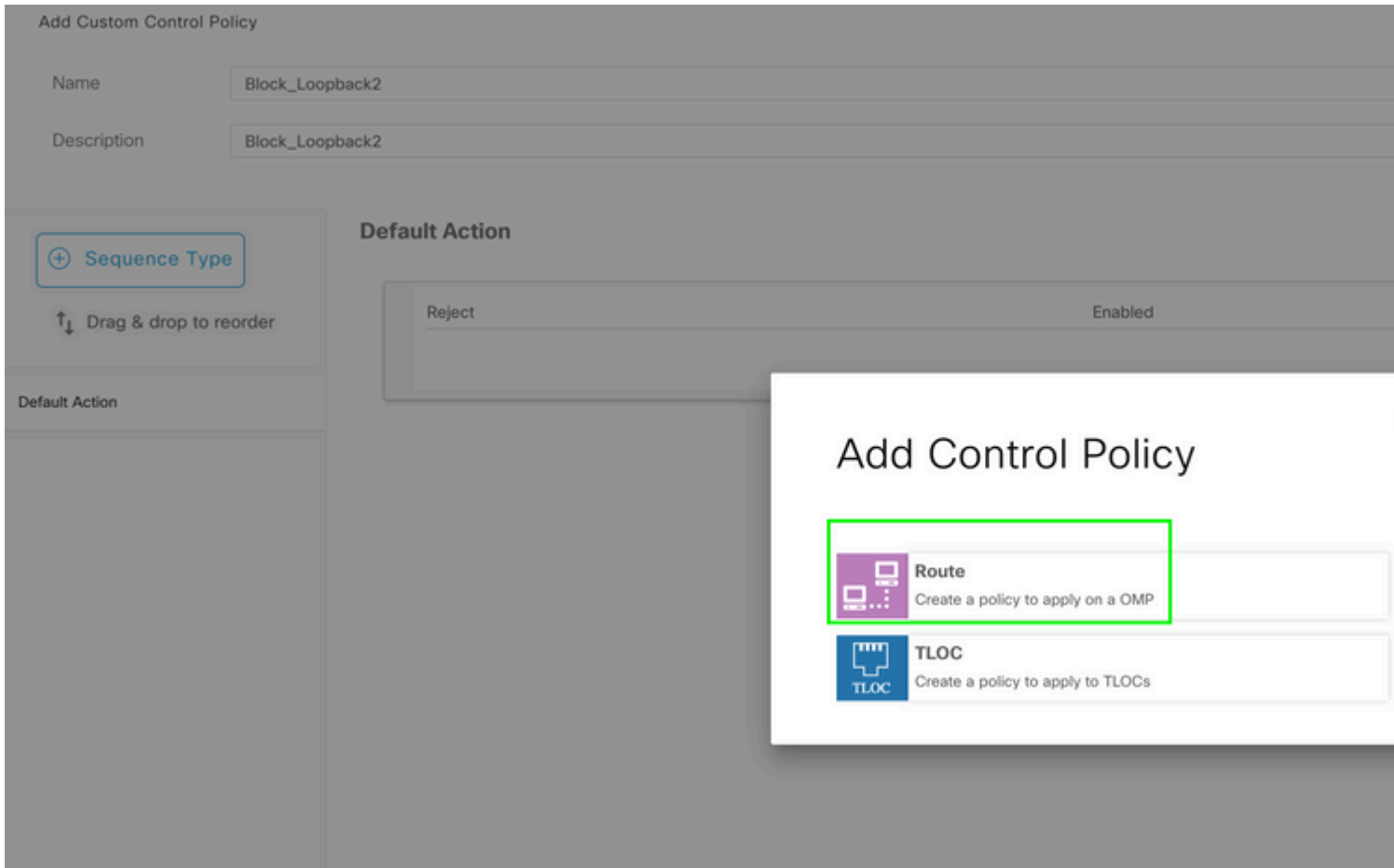
Create a route policy and apply it towards centralized policy: Match the prefix created earlier and set action as **Reject**.
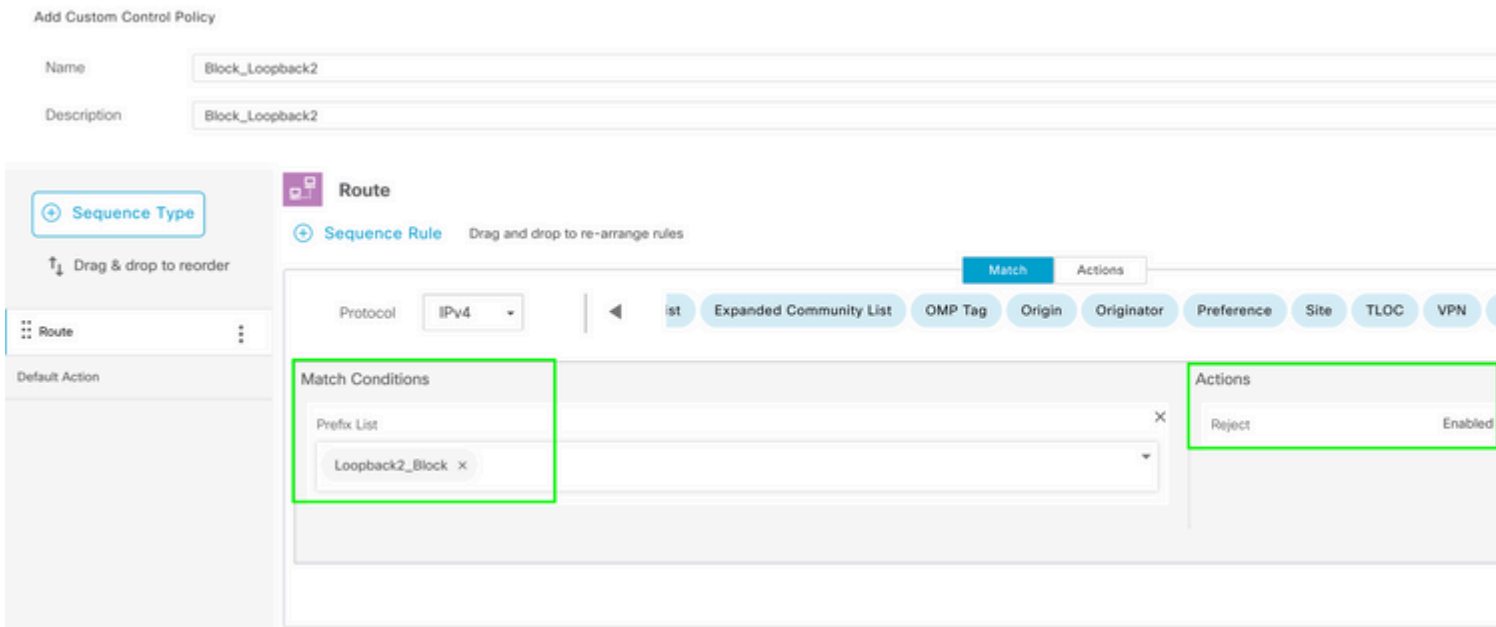


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Default action must be **Accept** since only one route is not supposed to be received.

## Add Custom Control Policy

| | |
|---|---|
| Name | Block_Loopback2 |
| Description | Block_Loopback2 |



⊕ Sequence Type

↑↓ Drag & drop to reorder

∷ Route

Default Action

**Default Action**

| | |
|---|---|
| Accept | Enabled |

Need to apply this policy outbound for the given destination sites, since this direction is from vSmart perspective.

Centralized Policy > Add Policy

✓ Create Groups of Interest — ✓ Configure Topology and VPN Membership — ✓ Configure Traffic Rules — ● Apply Policies to Sites and VPNs

Add policies to sites and VPNs

| | |
|---|---|
| Policy Name | Block_Loopback2_Branch_Sites |
| Policy Description | Block_Loopback2_Branch_Sites |

Topology    Application-Aware Routing    Traffic Data    Cflowd

Block_Loopback2

⊕ New Site List

| Direction | Site List | Action |
|---|---|---|
| out | Branch_Block_Traffic | ✎ 🗑 |

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Preview: This is how the configuration looks once centralized policy is created.

```
viptela-policy:policy
  control-policy Block_Loopback2
      sequence 1
        match route
          prefix-list Loopback2_Block
        !
        action reject
        !
      !
    default-action accept
  !
  lists
    prefix-list Loopback2_Block
      ip-prefix 192.168.50.2/32
    !
    site-list Branch_Block_Traffic
      site-id 10
      site-id 100
    !
  !
!
apply-policy
  site-list Branch_Block_Traffic
    control-policy Block_Loopback2 out
```

```
Generating output, this might take time, please wait ...
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved

                                         PATH                    ATTRIBUTE

VPN    PREFIX            FROM PEER       ID    LABEL   STATUS    TYPE       TLOC IP       COLOR

----------------------------------------------------------------------------------------------
1      0.0.0.0/0         10.10.10.2      123   1004    C,I,R     installed  10.10.10.60   biz-ir
1      172.20.0.0/24     10.10.10.2      124   1003    C,I,R     installed  10.10.10.65   biz-ir
1      192.168.40.2/32   0.0.0.0         68    1004    C,Red,R   installed  10.10.10.40   biz-ir
1      192.168.50.2/32   0.0.0.0         68    1004    C,Red,R   installed  10.10.10.40   biz-ir

cEdge_Site40#
```

Connected routes are in RIB.

```
cEdge_Site40#show ip route vrf 1

Routing Table: 1
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, m - OMP
       n - NAT, Ni - NAT inside, No - NAT outside, Nd - NAT DIA
       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
       H - NHRP, G - NHRP registered, g - NHRP registration summary
       o - ODR, P - periodic downloaded static route, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR
       & - replicated local route overrides by connected

Gateway of last resort is 10.10.10.60 to network 0.0.0.0

m*    0.0.0.0/0 [251/0] via 10.10.10.60, 20:25:46, Sdwan-system-intf
      172.20.0.0/24 is subnetted, 1 subnets
m        172.20.0.0 [251/0] via 10.10.10.65, 20:25:46, Sdwan-system-intf
      192.168.40.0/32 is subnetted, 1 subnets
C        192.168.40.2 is directly connected, Loopback1
      192.168.50.0/32 is subnetted, 1 subnets
C        192.168.50.2 is directly connected, Loopback2

cEdge_Site40#
```

With **show ip protocols vrf 1** command, you can check which routes are by default redistributed into OMP.

```
cEdge_Site40#show ip protocols vrf 1
*** IP Routing is NSF aware ***

Routing Protocol is "omp"
  Sending updates every 0 seconds
  Invalid after 0 seconds, hold down 0, flushed after 0
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Redistributing: connected, static, nat-route
                  ospf 1 (internal)
  Maximum path: 32
  Routing for Networks:
  Routing Information Sources:
    Gateway         Distance      Last Update
  Distance: (default is 251)

cEdge_Site40#
```

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Here, 192.168.40.2 is not redistributed to OMP, after device template is pushed successfully. Since 192.168.50.2 is only allowed as part of the localized policy.

```
cEdge_Site40#show sdwan omp routes
Generating output, this might take time, please wait ...
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                 PATH                  ATTRIBUTE

VPN    PREFIX            FROM PEER      ID    LABEL  STATUS   TYPE       TLOC IP        COLOR

----------------------------------------------------------------------------------------------

1      0.0.0.0/0         10.10.10.2     123   1004   C,I,R    installed  10.10.10.60    biz-in
1      172.20.0.0/24     10.10.10.2     124   1003   C,I,R    installed  10.10.10.65    biz-in
1      192.168.50.2/32   0.0.0.0        68    1004   C,Red,R  installed  10.10.10.40    biz-in

cEdge_Site40#
```

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Next output captures vrf 1 routing table and 192.168.40.2 is in RIB.

```
cEdge_Site40#show ip route vrf 1
Routing Table: 1
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, m - OMP
       n - NAT, Ni - NAT inside, No - NAT outside, Nd - NAT DIA
       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
       H - NHRP, G - NHRP registered, g - NHRP registration summary
       o - ODR, P - periodic downloaded static route, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR
       & - replicated local route overrides by connected

Gateway of last resort is 10.10.10.60 to network 0.0.0.0

m*    0.0.0.0/0 [251/0] via 10.10.10.60, 00:09:43, Sdwan-system-intf
      172.20.0.0/24 is subnetted, 1 subnets
m        172.20.0.0 [251/0] via 10.10.10.65, 00:09:43, Sdwan-system-intf
      192.168.40.0/32 is subnetted, 1 subnets
C        192.168.40.2 is directly connected, Loopback1
      192.168.50.0/32 is subnetted, 1 subnets
C        192.168.50.2 is directly connected, Loopback2

cEdge_Site40#
```

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## CLI Add-On Template

Per current configuration, both OSPF External and Internal routes are redistributed into OMP.

```
cEdge_ospf#show sdwan omp routes 192.168.60.0/24
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                    PATH                     ATTRIBUTE

VPN    PREFIX            FROM PEER      ID    LABEL   STATUS   TYPE      TLOC IP        COLOR
--------------------------------------------------------------------------------------------
1      192.168.60.0/24   0.0.0.0        75    1003    C,Red,R  installed 10.10.10.100   gold
```

```
cEdge_ospf#show sdwan omp routes 172.16.16.0/24
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                   PATH              ATTRIBUTE

VPN    PREFIX          FROM PEER      ID    LABEL   STATUS   TYPE      TLOC IP       COLOR
-------------------------------------------------------------------------------------------
1      172.16.16.0/24  0.0.0.0        75    1003    C,Red,R  installed 10.10.10.100  gold

cEdge_ospf#
```

Next output captures vrf 1 ospf routing table and both OSPF External and Internal route is in RIB.

```
cEdge_ospf#show ip route vrf 1 ospf

Routing Table: 1
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, m - OMP
       n - NAT, Ni - NAT inside, No - NAT outside, Nd - NAT DIA
       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
       H - NHRP, G - NHRP registered, g - NHRP registration summary
       o - ODR, P - periodic downloaded static route, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR
       & - replicated local route overrides by connected

Gateway of last resort is 10.10.10.60 to network 0.0.0.0

      172.16.0.0/24 is subnetted, 1 subnets
O E2     172.16.16.0 [110/20] via 192.168.70.3, 00:14:04, GigabitEthernet0/0/1
O IA  192.168.60.0/24 [110/2] via 192.168.70.3, 01:07:51, GigabitEthernet0/0/1

cEdge_ospf#
```

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1. After filtering with route-map to redistribute just internal routes, OSPF external route is no longer redistributed into OMP.

```
cEdge_ospf#show sdwan omp routes 172.16.16.0/24
```

```
% No such element exists.

cEdge_ospf#show sdwan omp routes 192.168.60.0/24
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                         PATH                    ATTRIBUTE

VPN    PREFIX             FROM PEER       ID    LABEL   STATUS   TYPE       TLOC IP         COLOR
-------------------------------------------------------------------------------------------------
1      192.168.60.0/24    0.0.0.0         75    1003    C,Red,R  installed  10.10.10.100    gold

cEdge_ospf
```

Next output captures vrf 1 ospf routing table and both OSPF External and Internal route is in RIB.

```
cEdge_ospf#show ip route vrf 1 ospf

Routing Table: 1
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, m - OMP
       n - NAT, Ni - NAT inside, No - NAT outside, Nd - NAT DIA
       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
       H - NHRP, G - NHRP registered, g - NHRP registration summary
       o - ODR, P - periodic downloaded static route, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR
       & - replicated local route overrides by connected

Gateway of last resort is 10.10.10.60 to network 0.0.0.0

      172.16.0.0/24 is subnetted, 1 subnets
O E2     172.16.16.0 [110/20] via 192.168.70.3, 00:09:12, GigabitEthernet0/0/1
O IA  192.168.60.0/24 [110/2] via 192.168.70.3, 01:02:59, GigabitEthernet0/0/1

cEdge_ospf#
```

2. After filtering with route-map to redistribute just external routes, OSPF internal route is no longer redistributed into OMP.

```
cEdge_ospf#show sdwan omp routes 192.168.60.0/24
```

```
% No such element exists.

cEdge_ospf#show sdwan omp routes 172.16.16.0/24
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                        PATH                    ATTRIBUTE

VPN    PREFIX           FROM PEER        ID    LABEL    STATUS    TYPE       TLOC IP          COLOR
-------------------------------------------------------------------------------------------------
1      172.16.16.0/24   0.0.0.0          75    1003     C,Red,R   installed  10.10.10.100     gold

cEdge_ospf#
```

Next output captures vrf 1 OSPF routing table and both OSPF External and Internal route is in RIB.

```
cEdge_ospf#show ip route vrf 1 ospf

Routing Table: 1
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, m - OMP
       n - NAT, Ni - NAT inside, No - NAT outside, Nd - NAT DIA
       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
       H - NHRP, G - NHRP registered, g - NHRP registration summary
       o - ODR, P - periodic downloaded static route, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR
       & - replicated local route overrides by connected

Gateway of last resort is 10.10.10.60 to network 0.0.0.0

      172.16.0.0/24 is subnetted, 1 subnets
O E2    172.16.16.0 [110/20] via 192.168.70.3, 00:02:16, GigabitEthernet0/0/1
O IA  192.168.60.0/24 [110/2] via 192.168.70.3, 00:56:03, GigabitEthernet0/0/1

cEdge_ospf#
```

# Centralized Control Policy

By default, all connected routes are redistributed in OMP from Site 40 (Focus on 192.168.50.2/32).

```
cEdge_Site40#show sdwan running-config | i site
 site-id                 40

cEdge_Site40#show sdwan omp routes 192.168.50.2/32
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                        PATH                    ATTRIBUTE

VPN    PREFIX             FROM PEER       ID    LABEL   STATUS   TYPE       TLOC IP          COLOR
-----------------------------------------------------------------------------------------------------
1      192.168.50.2/32    0.0.0.0         68    1004    C,Red,R  installed  10.10.10.40      biz-in

cEdge_Site40#
```

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Site 10 and Site 100 receive the route from OMP.

```
cEdge_Site10#show sdwan running-config | i site
 site-id                 10

cEdge_Site10#show sdwan omp routes 192.168.50.2/32
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                        PATH                    ATTRIBUTE

VPN    PREFIX             FROM PEER       ID    LABEL   STATUS   TYPE       TLOC IP          COLOR
-----------------------------------------------------------------------------------------------------
1      192.168.50.2/32    10.10.10.2      32    1004    C,I,R    installed  10.10.10.40      biz-in

cEdge_Site10#
```

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```
cEdge_ospf#show sdwan running-config | i site
 site-id                  100

cEdge_ospf#show sdwan omp routes 192.168.50.2/32
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                        PATH                    ATTRIBUTE

VPN    PREFIX            FROM PEER       ID    LABEL    STATUS   TYPE       TLOC IP        COLOR
--------------------------------------------------------------------------------------------
1      192.168.50.2/32   10.10.10.2      73    1004     C,I,R    installed  10.10.10.40    biz-ir

cEdge_ospf#
```

1. After centralized policy is pushed to vSmart, Site 40 is still redistributing 192.168.50.2 into OMP and vSmart is receiving it.

```
cEdge_Site40#show sdwan running-config | i site
 site-id                  40

cEdge_Site40#show sdwan omp routes 192.168.50.2/32
Generating output, this might take time, please wait ...
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
                                        PATH                    ATTRIBUTE

VPN    PREFIX            FROM PEER       ID    LABEL    STATUS   TYPE       TLOC IP        COLOR
--------------------------------------------------------------------------------------------
1      192.168.50.2/32   0.0.0.0         68    1004     C,Red,R  installed  10.10.10.40    biz-ir

cEdge_Site40#



rcdn_lab_vSmart# show omp routes 192.168.50.2/32
```

```
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved
```

|     |              |             | PATH |       |        | ATTRIBUTE |            |        |
|-----|--------------|-------------|------|-------|--------|-----------|------------|--------|
| VPN | PREFIX       | FROM PEER   | ID   | LABEL | STATUS | TYPE      | TLOC IP    | COLOR  |
| 1   | 192.168.50.2/32 | 10.10.10.40 | 68   | 1004  | C,R    | installed | 10.10.10.40 | biz-in |

```
rcdn_lab_vSmart#
```

However, Site 10 and 100 do not receive that particular route.

```
cEdge_Site10#show sdwan running-config | i site
 site-id                10

cEdge_Site10#show sdwan omp routes 192.168.50.2/32
% No such element exists.

cEdge_Site10#

cEdge_ospf#show sdwan running-config | i site
 site-id                100

cEdge_ospf#show sdwan omp routes 192.168.50.2/32
% No such element exists.

cEdge_ospf#
```

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2. After centralized policy is pushed to vSmart, Site 40 is still redistributing 192.168.50.2 into OMP, but vSmart is rejecting it, making it invalid.

```
rcdn_lab_vSmart# show omp routes 192.168.50.2/32
Code:
C   -> chosen
I   -> installed
Red -> redistributed
Rej -> rejected
L   -> looped
R   -> resolved
S   -> stale
```

```
Ext -> extranet
Inv -> invalid
Stg -> staged
IA  -> On-demand inactive
U   -> TLOC unresolved

                                    PATH                  ATTRIBUTE

VPN    PREFIX            FROM PEER      ID    LABEL    STATUS     TYPE       TLOC IP       COLOR
-------------------------------------------------------------------------------------------------
1      192.168.50.2/32   10.10.10.40    68    1004     Rej,R,Inv  installed  10.10.10.40   biz-ir
```

rcdn_lab_vSmart#

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Site 10 and 100 do not receive that particular route.

```
cEdge_Site10#show sdwan running-config | i site
 site-id               10

cEdge_Site10#show sdwan omp routes 192.168.50.2/32
% No such element exists.

cEdge_Site10#

cEdge_ospf#show sdwan running-config | i site
 site-id               100

cEdge_ospf#show sdwan omp routes 192.168.50.2/32
% No such element exists.

cEdge_ospf#
```

# Related Information

- **Cisco Technical Support & Downloads**