

Cisco Application Centric Infrastructure

Configuring ACI Fabric BGP Route Reflectors

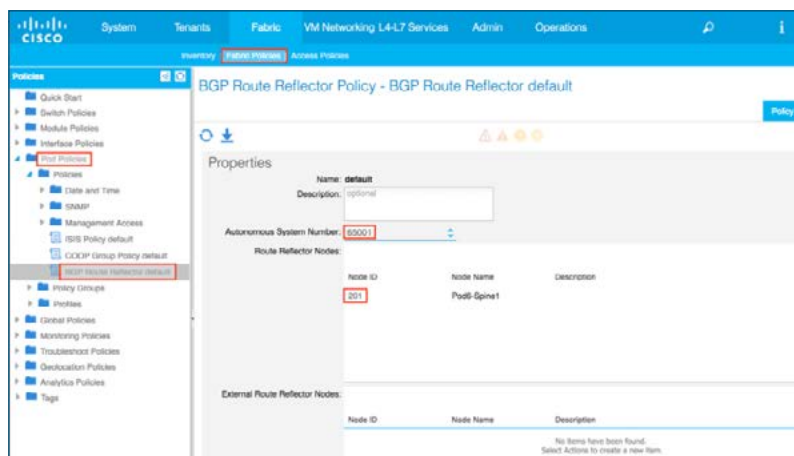
The ACI fabric makes use of route reflectors (MP-BGP) to distribute external routes within the fabric. To enable route reflectors in the ACI fabric, you must select the spine switches that will reflect the routes. You will need to configure a BGP autonomous system number for the fabric. Once route reflectors have been enabled, you will be able to configure L3 connectivity outside of the fabric.

Configuration – Prior to APIC 3.0

To configure the ACI Fabric BGP route reflectors, do the following:

1. Go to Fabric > **Fabric Policies** > **Pod Policies** > **Policies** > **BGP Route Reflector default**.

Configure the BGP AS# **65001** and the spines that you will use as your BGP route reflectors.

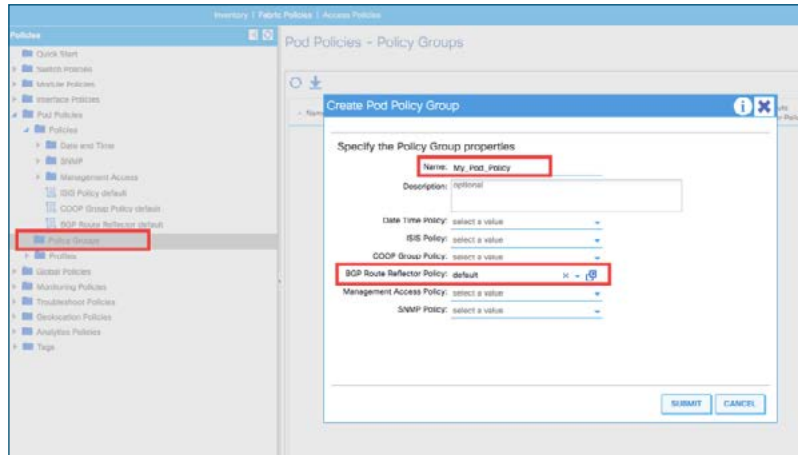


Fabric > Fabric Policies > Pod Policies > BGP Route Reflector

2. Go to Fabric > Fabric Policies > Pod Policies > Policy Groups > Create Pod Policy Group

Name: **My_Pod_Policy**

BGP Route Reflector Policy: **default**



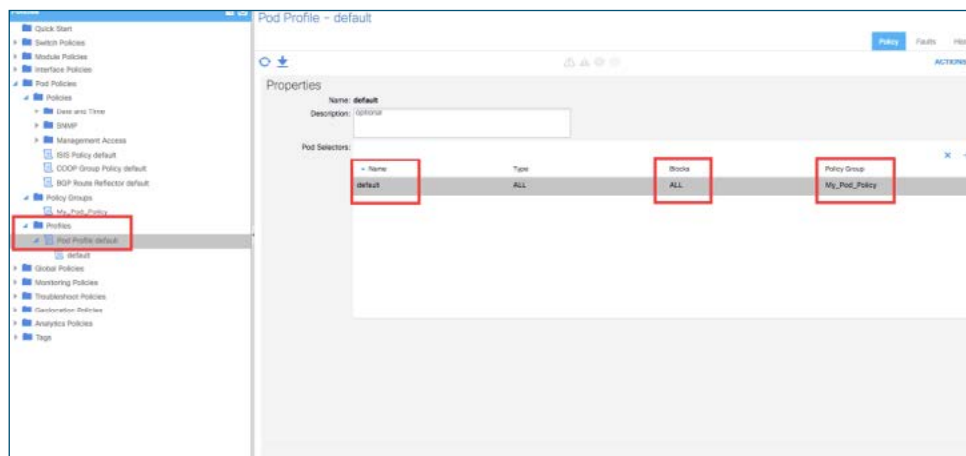
Fabric > Fabric Policies > Pod Policies > Policy Groups

3. Go to Fabric > Fabric Policies > Pod Policies > Profiles > Pod Profile default

Name: **default**

Blocks: **1 (or ALL for MultiPod)**

Policy Group: **My_Pod_Policy**



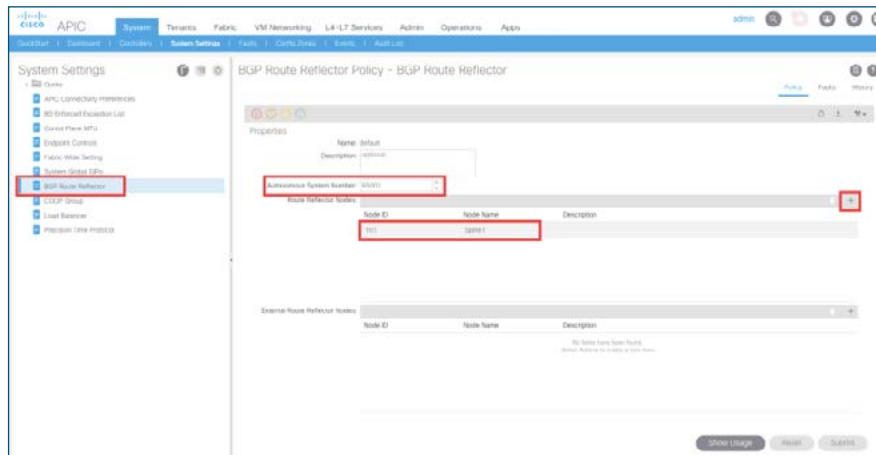
Fabric > Fabric Policies > Pod Policies > Profiles > Pod Profile default

Configuration – APIC 3.0(1k) and Later

To configure the ACI Fabric BGP route reflectors, do the following:

1. Go to **System > System Settings > BGP Route Reflector**.

Configure the BGP AS# **65001** and the Spines that you will use as your BGP route reflectors.



System > System Settings > BGP Route Reflector

Verification

Verify that BGP is running on the LEAFs by issuing the following command: **show bgp sessions vrf overlay-1**

If BGP was NOT configured correctly, this is what you will see:

```
Leaf101# show bgp sessions vrf overlay-1
Note: BGP process currently not running
```

If BGP was successfully configured, this is what you will see:

```
Pod6_Leaf1# show ip bgp summary vrf all
BGP summary information for VRF Pod6_User1:Main_VRF, address family IPv4
Unicast

BGP summary information for VRF management, address family IPv4 Unicast
BGP summary information for VRF overlay-1, address family IPv4 Unicast
```

Sample XML Configuration

BGP_RR_XML_CONFIG.xml

```
BGP_RR_XML_CONFIG x
1 <polUni dn="uni">
2   <fabricInst name="" ownerKey="" ownerTag="">
3
4     ### Change the node ID's to the node ID's of 2 spine switches and the BGP ASN
5     <bgpInstPol descr="" name="default" ownerKey="" ownerTag="">
6       <bgpRRP descr="" name="">
7         <bgpRRNodePEp descr="" id="101" status="deleted"/>
8         <bgpRRNodePEp descr="" id="102" status="deleted"/>
9       </bgpRRP>
10      <bgpAsP asn="65001" descr="" name=""/>
11    </bgpInstPol>
12
13    <fabricCtrlrP descr="" name="default" ownerKey="" ownerTag="">
14      <fabricCtrlrS descr="" name="default" ownerKey="" ownerTag="" type="ALL">
15        <fabricRsCtrlrPGrp tDn="uni/fabric/funcprof/ctrlrgrp-default"/>
16      </fabricCtrlrS>
17    </fabricCtrlrP>
18    ### Change the pod policy name to the My_Pod_Policy
19
20    <fabricPodP descr="" name="default" ownerKey="" ownerTag="">
21      <fabricPodS descr="" name="default" ownerKey="" ownerTag="" type="ALL">
22        ###<fabricRsPodPGrp tDn="uni/fabric/funcprof/podpggrp-My_Pod_Policy" status="deleted"/>
23      </fabricPodS>
24    </fabricPodP>
25
26    <fabricFuncP descr="" name="" ownerKey="" ownerTag="">
27      <fabricCtrlrPGrp descr="" name="default" ownerKey="" ownerTag="">
28        <fabricRsApplTechSupOnD tnDbgexpTechSupOnDName=""/>
29        <fabricRsApplTechSupP tnDbgexpTechSupPName=""/>
30        <fabricRsApplCoreP tnDbgexpCorePName=""/>
31        <fabricRsApplMonPol tnMonFabricPolName=""/>
32      </fabricCtrlrPGrp>
33
34      ###<fabricPodPGrp descr="" name="My_Pod_Policy" ownerKey="" ownerTag="" status="deleted">
35        <fabricRsPodPGrpIsisDomP tnIsisDomPolName=""/>
36        <fabricRsPodPGrpBGPGRP tnBgpInstPolName="default"/>
37        <fabricRsTimePol tnDatetimePolName=""/>
38        <fabricRsCommPol tnCommPolName=""/>
39        <fabricRsPodPGrpCoopP tnCoopPolName=""/>
40        <fabricRsSnmpPol tnSnmpPolName=""/>
41      </fabricPodPGrp>
42    </fabricFuncP>
43
44  </fabricInst>
45 </polUni>
```