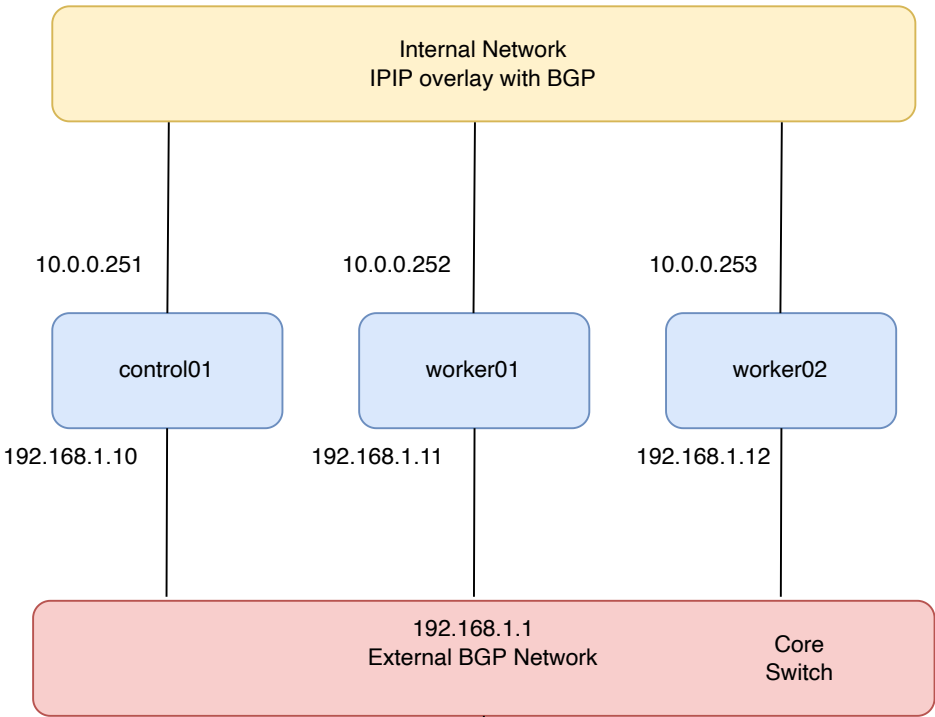


Calico Node IPs - Used for Overlay network  
(kubernetes: NodeInternalIP) - uses the IPs based on Kubernetes API



BGP peers in the core switch - note that peering is not established for the master node

Neighbor	V	AS	MsgRcvd	MsgSent	InQ	OutQ	Up/Down	State	PfxRcd	PfxAcc
192.168.1.10	4	63400	54	71	0	0	00:15:41	Active		
192.168.1.11	4	63400	70	77	0	0	00:15:39	Estab	9	9
192.168.1.12	4	63400	70	77	0	0	00:15:39	Estab	9	9

The routing table in the core switch

V - VXLAN Control Service, M - Marlian,  
DH - DHCP client installed default route,  
DP - Dynamic Policy Route, L - VRF Leaked,  
G - gRIBI, RC - Route Cache Route

Gateway of last resort is not set

C	10.0.0.0/24	is directly connected, Ethernet4
B E	10.48.189.64/26 [200/0]	via 192.168.1.12, Vlan10
B E	10.48.232.0/26 [200/0]	via 192.168.1.12, Vlan10
B E	10.48.235.128/26 [200/0]	via 192.168.1.12, Vlan10
B E	10.96.0.0/12 [200/0]	via 192.168.1.12, Vlan10
C	192.168.1.0/24	is directly connected, Vlan10

```
spec:
  calicoNetwork:
    bgp: Enabled
    hostPorts: Enabled
    ipPools:
      - blockSize: 26
        cidr: 10.48.0.0/16
        encapsulation: IPIP
        natOutgoing: Enabled
        nodeSelector: all()
        linuxDataplane: Iptables
        multiInterfaceMode: None
        nodeAddressAutodetectionV4:
          kubernetes: NodeInternalIP
```

```
root@control01:~# ./calicoctl get nodes control01 -o yaml
apiVersion: projectcalico.org/v3
kind: Node
metadata:
  annotations:
    projectcalico.org/kube-labels: '{"beta.kubernetes.io/arch":"a
kubernetes.io/os":"linux","node-role.kubernetes.io/control-plane"
creationTimestamp: "2022-12-07T03:20:51Z"
labels:
  beta.kubernetes.io/arch: amd64
  beta.kubernetes.io/os: linux
  kubernetes.io/arch: amd64
  kubernetes.io/hostname: control01
  kubernetes.io/os: linux
  node-role.kubernetes.io/control-plane: ""
  node-role.kubernetes.io/master: ""
  node.kubernetes.io/exclude-from-external-load-balancers: ""
name: control01
resourceVersion: "17652"
uid: f740ecf5-623e-4462-a480-c5f9d3b7ac01
spec:
  addresses:
    - address: 10.0.0.251/24
      type: CalicoNodeIP
    - address: 10.0.0.251
      type: InternalIP
  bgp:
    ipv4Address: 10.0.0.251/24
    ipv4IPIPTunnelAddr: 10.48.232.0
    archRefs:
      - nodeName: control01
        orchestrator: k8s
  status:
    podCIDsRs:
      - 10.48.0.0/24
root@control01:~#
```

```
root@control01:~# ./calicoctl get nodes worker1 -o yaml
apiVersion: projectcalico.org/v3
kind: Node
metadata:
  annotations:
    projectcalico.org/kube-labels: '{"beta.kubernetes.io/arch":"a
kubernetes.io/os":"linux"}'
creationTimestamp: "2022-12-07T03:21:12Z"
labels:
  beta.kubernetes.io/arch: amd64
  beta.kubernetes.io/os: linux
  kubernetes.io/arch: amd64
  kubernetes.io/hostname: worker1
  kubernetes.io/os: linux
name: worker1
resourceVersion: "17906"
uid: dfbd4d2b-26d9-4ce5-baf1-4686149b72f4
spec:
  addresses:
    - address: 10.0.0.252/24
      type: CalicoNodeIP
    - address: 10.0.0.252
      type: InternalIP
  bgp:
    ipv4Address: 10.0.0.252/24
    ipv4IPIPTunnelAddr: 10.48.235.128
    archRefs:
      - nodeName: worker1
        orchestrator: k8s
  status:
    podCIDsRs:
      - 10.48.1.0/24
root@control01:~#
```

```
root@control01:~# ./calicoctl get nodes worker2 -o yaml
apiVersion: projectcalico.org/v3
kind: Node
metadata:
  annotations:
    projectcalico.org/kube-labels: '{"beta.kubernetes.io/arch":"a
kubernetes.io/os":"linux"}'
creationTimestamp: "2022-12-07T03:21:17Z"
labels:
  beta.kubernetes.io/arch: amd64
  beta.kubernetes.io/os: linux
  kubernetes.io/arch: amd64
  kubernetes.io/hostname: worker2
  kubernetes.io/os: linux
name: worker2
resourceVersion: "18299"
uid: e416b1cb-aff3-4ac4-9996-250442c37140
spec:
  addresses:
    - address: 10.0.0.253/24
      type: CalicoNodeIP
    - address: 10.0.0.253
      type: InternalIP
  bgp:
    ipv4Address: 10.0.0.253/24
    ipv4IPIPTunnelAddr: 10.48.189.64
    archRefs:
      - nodeName: worker2
        orchestrator: k8s
  status:
    podCIDsRs:
      - 10.48.2.0/24
root@control01:~#
```

BGPPeer configuration

```
apiVersion: projectcalico.org/v3
kind: BGPPeer
metadata:
  name: core-switch
spec:
  peerIP: 192.168.1.1
  asNumber: 65010
  nodeSelector: (!has(node-role.kubernetes.io/master))
  sourceAddress: None
root@control01:~#
```

BGPConfiguration

```
apiVersion: projectcalico.org/v3
kind: BGPConfiguration
metadata:
  name: default
spec:
  logSeverityScreen: Info
  nodeToNodeMeshEnabled: true
  asNumber: 63400
  serviceClusterIPs:
    - cidr: 10.96.0.0/12
  communities:
    - name: bgp-large-community
      value: 63400:300:100
  prefixAdvertisements:
    - cidr: 10.48.0.0/16
      communities:
        - bgp-large-community
        - 63400:120
~
```

IPPool Configuration

```
kind: IPPool
metadata:
  creationTimestamp: "2022-12-07T03:
  name: default-ipv4-ippool
  resourceVersion: "1217"
  uid: ea767c9b-29a4-458b-bb6e-6981b
spec:
  allowedUses:
    - Workload
    - Tunnel
  blockSize: 26
  cidr: 10.48.0.0/16
  ipipMode: Always
  natOutgoing: true
  nodeSelector: all()
  vxlanMode: Never
root@control01:~#
```

BGP Peers - Master Node

```
root@control01:~# ./calicoctl node status
Calico process is running.

IPv4 BGP status
+-----+-----+-----+-----+-----+
| PEER ADDRESS | PEER TYPE | STATE | SINCE | INFO |
+-----+-----+-----+-----+-----+
| 10.0.0.252 | node-to-node mesh | up | 04:30:13 | Established |
| 10.0.0.253 | node-to-node mesh | up | 04:30:13 | Established |
+-----+-----+-----+-----+-----+

IPv6 BGP status
No IPv6 peers found.
```

BGP Peers - Worker 01

```
root@worker1:~# ./calicoctl node status
Calico process is running.

IPv4 BGP status
+-----+-----+-----+-----+-----+
| PEER ADDRESS | PEER TYPE | STATE | SINCE | INFO |
+-----+-----+-----+-----+-----+
| 10.0.0.251 | node-to-node mesh | up | 04:30:12 | Established |
| 10.0.0.253 | node-to-node mesh | up | 04:30:12 | Established |
| 192.168.1.1 | node specific | up | 05:13:19 | Established |
+-----+-----+-----+-----+-----+
```

BGP Peers - Worker 02

```
root@worker2:~# ./calicoctl node status
Calico process is running.

IPv4 BGP status
+-----+-----+-----+-----+-----+
| PEER ADDRESS | PEER TYPE | STATE | SINCE | INFO |
+-----+-----+-----+-----+-----+
| 10.0.0.251 | node-to-node mesh | up | 04:30:13 | Established |
| 10.0.0.252 | node-to-node mesh | up | 04:30:13 | Established |
| 192.168.1.1 | node specific | up | 05:13:20 | Established |
+-----+-----+-----+-----+-----+
```