This PDF is generated from authoritative online content, and is provided for convenience only. This PDF cannot be used for legal purposes. For authoritative understanding of what is and is not supported, always use the online content. To copy code samples, always use the online content.

Setting up Genesys Multicloud CX Private Edition

Configure VXLAN on OpenShift

8/1/2025

Contents

Learn how you can set up VXLAN tunnels, which is the first step in SBC integration with the Genesys Multicloud CX private edition deployment on OpenShift.

Related documentation:

-
-

RSS:

- For private edition

Disclaimer

Genesys is committed to diversity, equality, and inclusivity. This includes using appropriate terms in our software and documentation. Therefore, Genesys is removing non-inclusive terms. For third-party products leveraged by Genesys that include such terms, Genesys uses the following as replacements.

- For the terms master/slave, Genesys uses “primary” and “secondary” or “primary” and “replica,” with exceptions for their use in third-party commands.
- For the terms blacklist/whitelist, Genesys uses blocklist/allowlist.
- For the term master, when used on its own, Genesys uses main wherever possible.

Set up VXLAN tunnels to the OpenShift cluster

```
bash-3.2$ ./oc get clusternetwork -o json | jq .items[0].network -r

10.28.0.0/14
```

Create a VXLAN tunnel and profile on the BIG-IPs

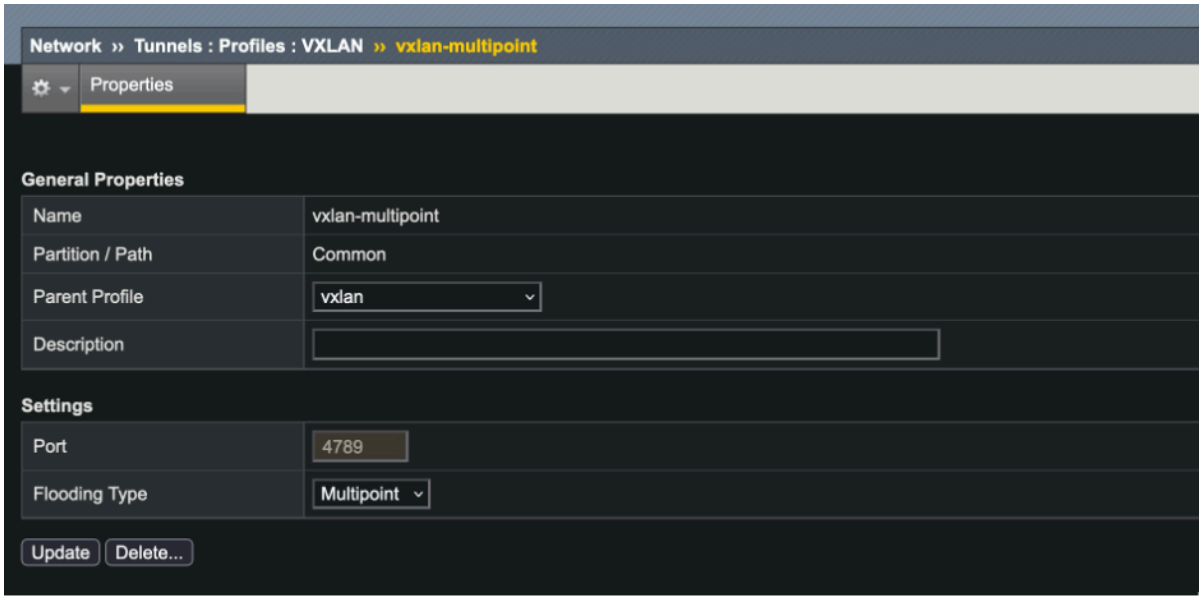
1. On bigip-01, create a VXLAN tunnel and profile.

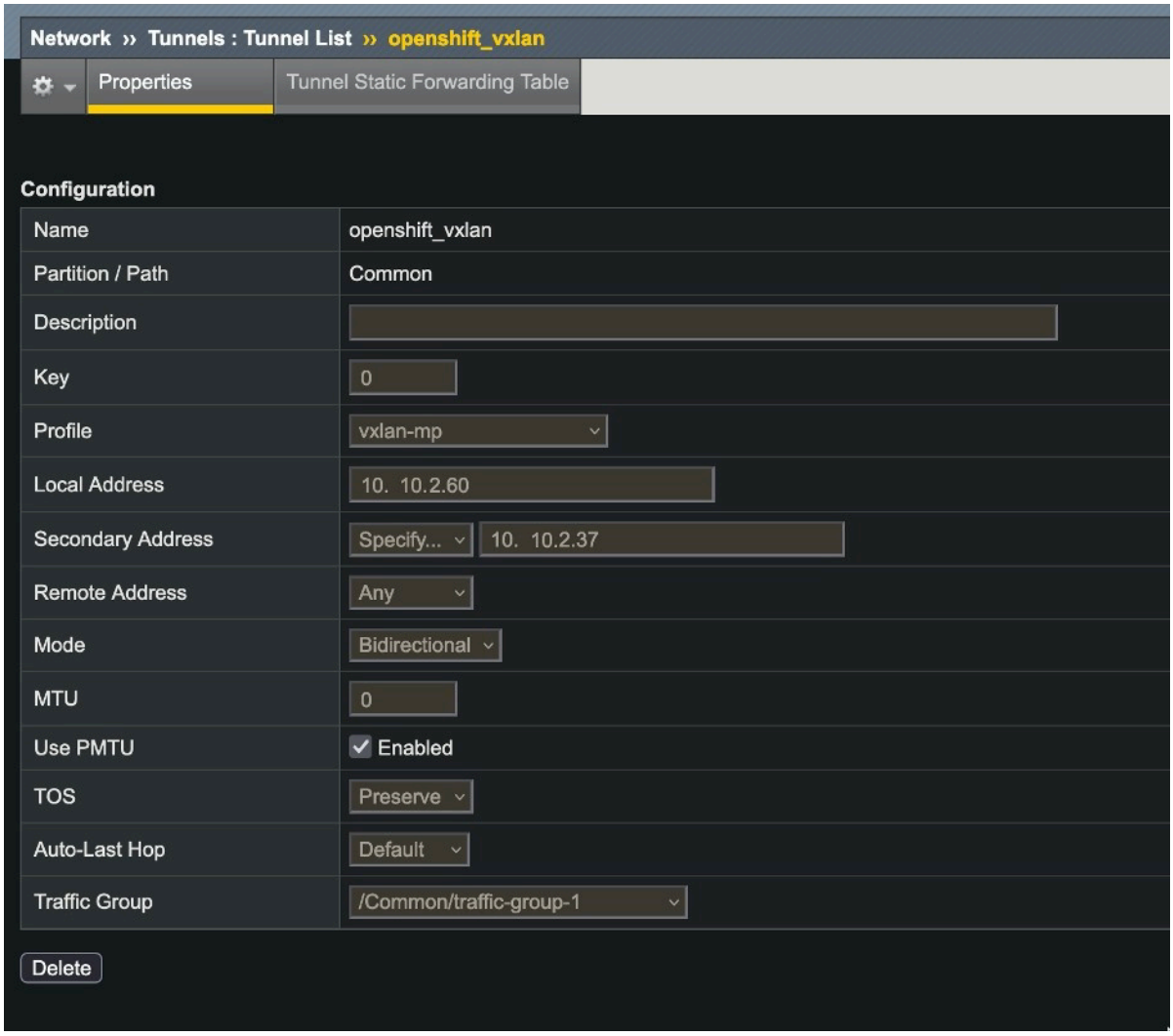
   ```
   (tmos)# create net tunnels vxlan vxlan-mp flooding-type multipoint

   (tmos)# create net tunnels tunnel openshift_vxlan key 0 profile vxlan-mp local-
   address 10.10.2.60 secondary-address 10.10.2.37
   ```

2. On bigip-02, create a VXLAN tunnel and profile.

```
(tmos)# create net tunnels vxlan vxlan-mp flooding-type multipoint

(tmos)# create net tunnels tunnel openshift_vxlan key 0 profile vxlan-mp local-
address 10.10.2.60 secondary-address 10.10.2.39
```

- Local-address: Internal floating IP
- Secondary-address: Internal self IP





Create new OpenShift host subnets for the BIG-IPs

This process includes creating three manifests, one for each of the BIG-IPs and a third for setting up the floating IP.

1. Create one host subnet for each BIG-IP device.

   f5-openshift-hostsubnet-bigip-01.yaml

   ```
    # Setup for F5 bigip-01 hostsubnet
   #
   apiVersion: v1
   kind: HostSubnet
   metadata:
     name: bigip-01
     annotations:
   ```

```
    pod.network.openshift.io/fixed-vnid-host: "0"
    pod.network.openshift.io/assign-subnet: "true"
# provide a name for the node that will serve as BIG-IP's entry into the cluster
host: bigip-01
# The hostIP address will be the BIG-IP interface address routable to the
# OpenShift Origin nodes.
# This address is the BIG-IP VTEP in the SDN's VXLAN.
hostIP: 10.10.2.37
```

f5-openshift-hostsubnet-bigip-02.yaml

```
# Setup for F5 big-ip-02 hostsubnet
#
apiVersion: v1
kind: HostSubnet
metadata:
  name: bigip-02
  annotations:
    pod.network.openshift.io/fixed-vnid-host: "0"
    pod.network.openshift.io/assign-subnet: "true"
# provide a name for the node that will serve as BIG-IP's entry into the cluster
host: bigip-02
# The hostIP address will be the BIG-IP interface address routable to the
# OpenShift Origin nodes.
# This address is the BIG-IP VTEP in the SDN's VXLAN.
hostIP: 10.10.2.39
```

f5-openshift-hostsubnet-bigip-float.yaml

```
# Setup for F5 big-ip-floating interface hostsubnet
#
apiVersion: v1
kind: HostSubnet
metadata:
  name: big-ip-float
  annotations:
    pod.network.openshift.io/fixed-vnid-host: "0"
    pod.network.openshift.io/assign-subnet: "true"
# provide a name for the node that will serve as BIG-IP's entry into the cluster
host: big-ip -float
# The hostIP address will be the BIG-IP interface address routable to the
# OpenShift Origin nodes.
# This address is the BIG-IP VTEP in the SDN's VXLAN.
hostIP: 10.10.2.60
```

2. Create the host subnet for the BIG-IPs by applying the preceding manifest files in OpenShift.

```
oc create -f f5-openshift-hostsubnet-bigip-01.yaml

oc create -f f5-openshift-hostsubnet-bigip-02.yaml

oc create -f f5-openshift-hostsubnet-bigip-float.yaml
```

3. Verify creation of the host subnets.

```
bash-3.2$ ./oc get hostsubnets
NAME
HOST                                          HOST IP       SUBNET           EGRESS
CIDRS   EGRESS IPS
aro1-eastus2-cpe-master-0               aro1-eastus2-cpe-master-0
10.10.0.9    10.29.0.0/23
aro1-eastus2-cpe-master-1               aro1-eastus2-cpe-master-1
10.10.0.8    10.30.0.0/23
```

```
aro1-eastus2-cpe-master-2                aro1-eastus2-cpe-master-2
10.10.0.7    10.28.0.0/23
aro1-eastus2-cpe-worker-eastus21-2bwqk   aro1-eastus2-cpe-worker-eastus21-2bwqk
10.10.1.5    10.29.12.0/23
aro1-eastus2-cpe-worker-eastus21-5v8hx   aro1-eastus2-cpe-worker-eastus21-5v8hx
10.10.1.7    10.30.10.0/23
aro1-eastus2-cpe-worker-eastus22-5mpvv   aro1-eastus2-cpe-worker-eastus22-5mpvv
10.10.1.11   10.28.12.0/23
bigip-float                              bigip-
float                                    10.10.2.60   10.30.2.0/23
bigip-01
bigip-01                                 10.10.2.37   10.31.0.0/23
bigip-02
bigip-02                                 10.10.2.39   10.29.2.0/23
```

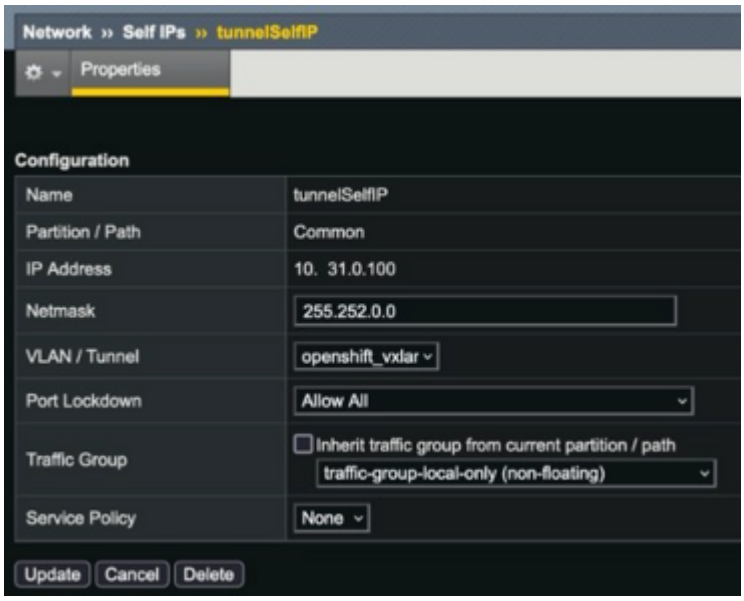
Create a self IP address in the VXLAN

When you create a self IP address in the VXLAN for each BIG-IP, you must ensure the following:

- The subnet mask you assign to the self IP must match the one that the OpenShift SDN assigns to nodes. By default, it is a /14.
- Specify a floating traffic group (for example, traffic-group-1). Otherwise, the self IP uses the BIG-IP system's default.

1. On bigip-01, create the self IP from host subnets bigip-01

```
(tmos)# create net self tunnelSelfIP address 10.31.0.100/14 allow-service all vlan
openshift_vxlan
```

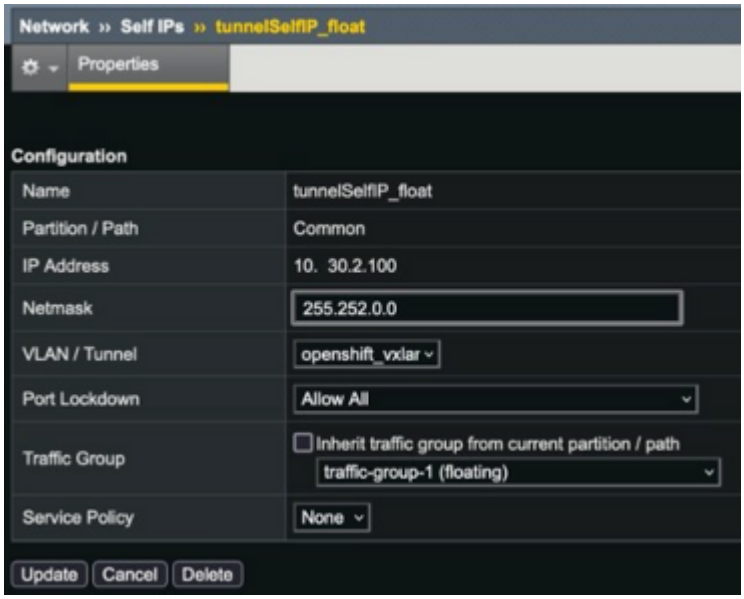


2. On bigip-02, create the self IP from host subnets bigip-02

```
(tmos)# create net self tunnelSelfIP address 10.29.2.100/14 allow-service all vlan
openshift_vxlan
```

3. On the active BIG-IP, create a floating IP address in the subnet assigned by the OpenShift SDN from the host subnets big-ip-float

```
(tmos)# create net self tunnelSelfIP address 10.30.2.100/14 allow-service all traffic-
group traffic-group-1 vlan openshift_vxlan
```



Create a partition on the BIG-IP system

Create a partition on the BIG-IP system using the following command:

```
(tmos)# create auth partition cisPartition
```