

# Managing Cisco Container Platform Infrastructure Configuration

This chapter contains the following topics:

- Managing Provider Profile, on page 1
- Managing ACI Profile, on page 2
- Managing Networks, on page 3

# **Managing Provider Profile**

Cisco Container Platform enables you to define the provider profile on which clusters can be created.

You can configure multiple provider profiles in an instance of Cisco Container Platform and use the same provider profile for multiple clusters.

### **Adding Provider Profile**

#### Before you begin

Cisco Container Platform interacts with vSphere through the user that you configure when you add a provider profile. Hence, you need to ensure that this user has the necessary privileges.

For more information on the vSphere user privileges, see User Privileges on vSphere.

- **Step 1** From the left pane, click **Infrastructure Providers**.
- **Step 2** Click **NEW PROVIDER** and specify information such as name and description of provider, IP address, port, username and passphrase of the provider profile.
- Step 3 Click SUBMIT.

#### **Modifying Provider Profile**

- **Step 1** From the left pane, click **Infrastructure Providers**.
- **Step 2** From the drop-down list displayed under the **ACTIONS** column, choose **Edit** corresponding to the provider profile that you want to modify.
- **Step 3** Change the provider details as necessary and click **SUBMIT**.

#### **Deleting Provider Profile**

- **Step 1** From the left pane, click **Infrastructure Providers**.
- **Step 2** From the drop-down list displayed under the **ACTIONS** column, choose **Delete** corresponding to the provider profile that you want to delete.
- **Step 3** Click **DELETE** in the confirmation dialog box.

# **Managing ACI Profile**

Cisco Container Platform enables you to define ACI profiles using which tenant clusters can be created.

You can define multiple ACI profiles and use the same profile for multiple clusters.

#### **Adding ACI Profile**

- **Step 1** From the left pane, click **ACI Profiles**.
- **Step 2** Click **Add New ACI Profile** and perform these steps:
  - a) Specify information such as profile name, IP address, username, and passphrase of the ACI instance.
    - **Note** If there is more than one host, use a comma-separated host list in the **APIC IP ADDRESSES** field.
  - b) In the **NAMESERVERS** field, enter the IP address of all the DNS servers that the ACI fabric can access.
  - c) From the VMM DOMAIN drop-down list, choose the Virtual Machine Manager Domain (VMMD) that you want to use.
  - d) In the INFRASTRUCTURE VLAN ID field, enter the VLAN number for layer 2 networking.
  - e) From the **VRF** drop-down list, choose the Virtual Routing and Forwarding (VRF) IP address.
  - f) From the L3OUT POLICY NAME drop-down list, choose the ACI object for allowing external internet connectivity.
  - g) From the **L3OUT NETWORK NAME** drop-down list, choose the external network that is reachable through the L3OUT object.
  - h) From the **AAEP NAME** drop-down list, choose an Attachable Access Entity Profile (AAEP) name to associate the VMM domain with an AAEP.
  - i) In the **STARTING SUBNET FOR PODS** field, enter the starting IP address for the IP pool that is used to allocate IP addresses to the pods.

- j) In the STARTING SUBNET FOR SERVICE field, enter the starting IP address for the IP pool that is used to allocate IP addresses to the service VLAN.
- k) In the **CONTROL PLANE CONTRACT NAME** field, enter the name of the contract that is provided by the Control Plane endpoint group to allow traffic from the Control Plane cluster to the tenant cluster.
- 1) In the **NODE VLAN START ID** field, enter the starting VLAN ID that is used to allocate VLAN to the node.
- m) In the **NODE VLAN END ID** field, enter the ending VLAN ID that is used to allocate VLAN to the node.
- In the OPFLEX MULTICAST RANGE field, enter a range for the Opflex multicast.
- Step 3 Click SUBMIT.

#### **Modifying ACI Profile**

- **Step 1** From the left pane, click **ACI Configuration**.
- **Step 2** From the drop-down list displayed under the **ACTIONS** column, choose **Edit** for the ACI profile that you want to modify.
- **Step 3** Change the ACI profile details as necessary and click **SUBMIT**.

# **Deleting ACI Profile**

- **Step 1** From the left pane, click **ACI Configuration**.
- **Step 2** From the drop-down list displayed under the **ACTIONS** column, choose **Delete** for the ACI profile that you want to delete.
- **Step 3** Click **DELETE** in the confirmation dialog box.

# **Managing Networks**



Note

This section is applicable only for a non-ACI environment.

Cisco Container Platform enables you to select an existing network, create a subnet in that network, and then create a Cisco Container Platform Virtual IP Address (VIP) pool within that subnet.

VIP pools are reserved ranges of IP addresses that are assigned as virtual IP addresses within the Cisco Container Platform clusters. A minimum of two IP addresses are required for each tenant cluster, namely, one for the master VIP of the Kubernetes tenant cluster and an additional VIP for the external IP address of the Ingress controller. The range of IP addresses in the VIP pools must be outside of the IP addresses that are assigned by DHCP.

#### **Modifying Networks**

- **Step 1** From the left pane, click **Networks**.
  - The **Networks** page displays the default network.
- Step 2 From the drop-down list displayed under the ACTIONS column, choose Edit for the network that you want to modify. Alternatively, click the SUBNETS tab or the POOLS tab, and then click EDIT from the right pane to view the Edit dialog box.
- **Step 3** Modify the network name as necessary and click **SUBMIT**.

#### **Adding Subnets**

If you want to allocate VIP from a different subnet CIDR you need to add the subnet.

- **Step 1** From the left pane, click **Networks**, and then click the network to which you want to add a subnet.
- **Step 2** From the right pane, click **NEW SUBNET**.
- **Step 3** Enter a name and CIDR for the subnet.
- **Step 4** Enter a gateway IP address that you want to use.
- **Step 5** Enter the DNS nameservers.
- Step 6 Click SUBMIT.

#### **Modifying Subnets**

- **Step 1** From the left pane, click **Networks**, and then click the network that contains the subnet you want to modify.
- Step 2 Click the SUBNETS tab.
- **Step 3** From the drop-down list displayed under the **ACTIONS** column, choose **Edit** for the subnet that you want to modify.
- **Step 4** Modify the subnet name and CIDR as necessary, and then click **SUBMIT**.

#### **Adding VIP Pool**

- **Step 1** From the left pane, click **Networks**, and then click the network to which you want to add a VIP pool.
- **Step 2** From the right pane, click **NEW POOL**.
- **Step 3** Specify a name, subnet and IP address range for the VIP pool.
- Step 4 Click SUBMIT.

# **Modifying VIP Pool**

- **Step 1** From the left pane, click **Networks**, and then click the network that contains the VIP pool you want to modify.
- Step 2 Click the POOLS tab.
- **Step 3** From the drop-down list displayed under the **ACTIONS** column, choose **Edit** for the VIP pool that you want to modify.
- **Step 4** Change the pool name and the IP address as necessary, and then click **SUBMIT**.

**Modifying VIP Pool**