Installing Cisco Container Platform on vSphere Web Client

This chapter contains the following topics:

Installing Cisco Container Platform

Installing Cisco Container Platform is a two-step process:

- Importing Cisco Container Platform Tenant Base VM

  The Cisco Container Platform tenant base VM contains the container image and the files that are necessary to create the tenant Kubernetes clusters that are used for configuring monitoring, logging, container network interfaces (CNI), and persistent volumes.

- Deploying Installer VM, on page 3

  The Installer VM contains the VM image and the files for installing other components such as Kubernetes and the Cisco Container Platform application.

Importing Cisco Container Platform Tenant Base VM

Before you begin

- Ensure that you have configured the storage and networking requirements. For more information, see Storage Requirements and Network Requirements.

- Ensure that vSphere has an Enterprise Plus license, which supports DRS and vSphere HA.

Step 1 Download the Cisco Container Platform tenant base VM from Cisco.com.

Step 2 Log in to the **VMware vSphere Web Client** as an administrator.

Step 3 In the **Navigation** pane, right-click the cluster on which you want to deploy Cisco Container Platform, and then choose **Deploy OVF Template**.

The **Deploy OVF Template** wizard appears.

Step 4   In the **Select template** screen, perform these steps:

a) Click the **URL** radio button, and enter the URL of the Cisco Container Platform tenant OVA.

Alternatively, click the **Local file** radio button, and browse to the location where the Cisco Container Platform tenant OVA is saved on your computer.

b) Click **Next**.

Step 5   In the **Select name and location** screen, perform these steps:

a) In the **Name** field, enter a name for the Cisco Container Platform tenant base VM.

Note   You need to note down the Cisco Container Platform tenant base VM name as you will need to specify it while creating a cluster.

b) In the **Browse** tab, choose the data center where you want to deploy Cisco Container Platform.
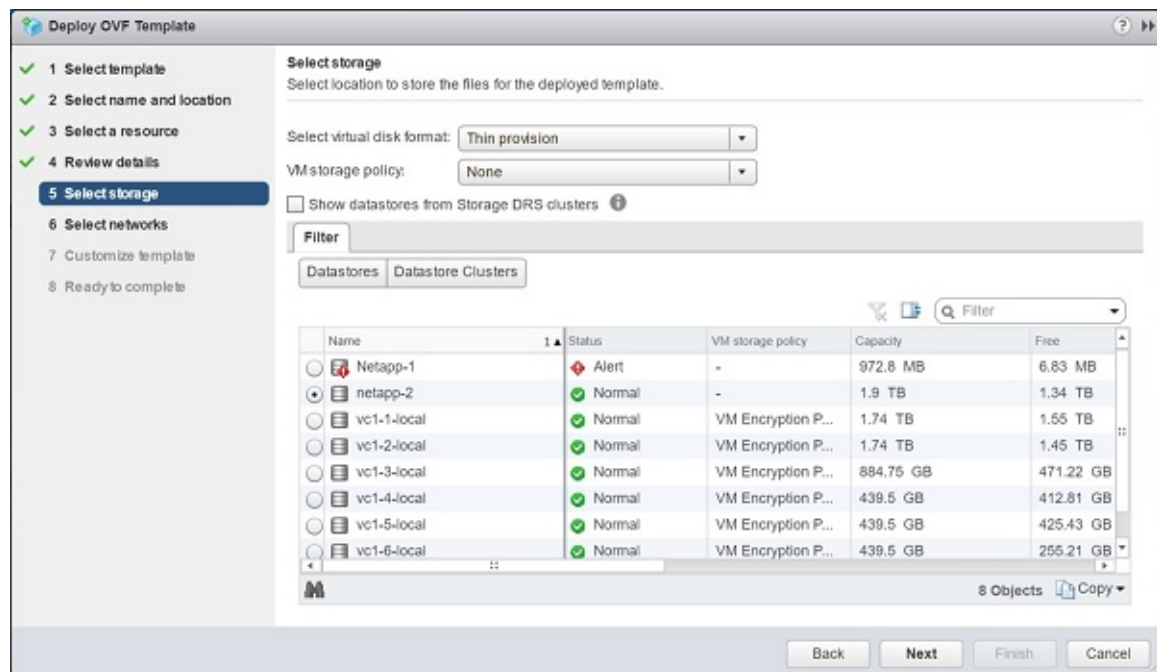
c) Click **Next**.

Step 6   In the **Select a resource** screen, choose a cluster where you want to run the Cisco Container Platform tenant base VM, and then click **Next**.

Step 7   In the **Review details** screen, verify the Cisco Container Platform tenant base VM details, and then click **Next**.

Step 8   In the **Select storage** screen, perform these steps:

a) From the **Select virtual disk format** drop-down list, choose **Thin Provision** to allocate storage on demand.

b) In the **Filters** tab, choose a destination datastore for the Cisco Container Platform tenant base VM.
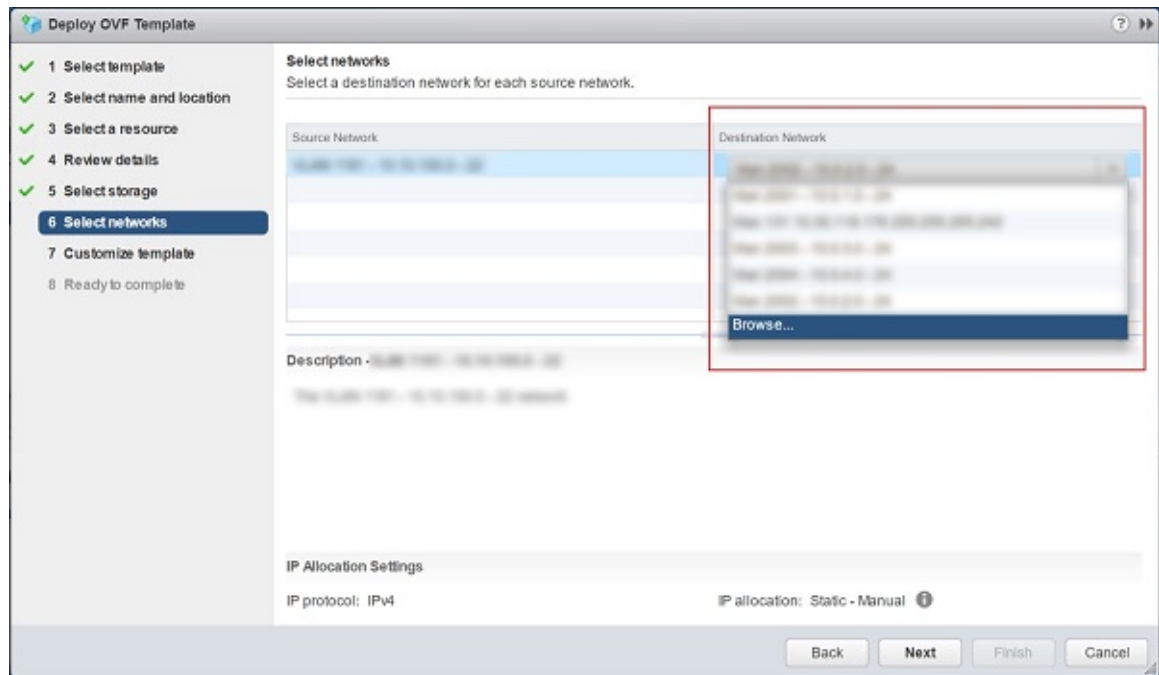
c) Click **Next**.
The **Select storage** screen appears.

Figure 1: Select Storage Screen

Step 9   In the **Select networks** screen, perform these steps:

a) From the **Destination Network** column, choose a network for each source network that is available in the Cisco Container Platform tenant base VM.

b) Click **Next**.
The **Select networks** screen appears.

Figure 2: Select Networks Screen

Step 10 In the **Customize template** screen, click **Next**.

Step 11 In the **Ready to complete** screen, verify the Cisco Container Platform tenant base VM settings, and then click **Finish**. The Cisco Container Platform tenant base VM import takes few minutes to complete.

Deploying Installer VM

Before you begin

Ensure that you have imported the latest Cisco Container Platform tenant base VM to the vCenter instance. For more information, see Importing Cisco Container Platform Tenant Base VM, on page 1.

Step 1 Download the Installer VM from Cisco.com.

Step 2 Log in to the **VMware vSphere Web Client** as an administrator.

Step 3 In the **Navigation** pane, right-click the cluster on which you want to deploy Cisco Container Platform, and then choose **Deploy OVF Template**.
The **Deploy OVF Template** wizard appears.

Step 4 In the **Select template** screen, perform these steps:

a) Click the **URL** radio button, and enter the URL of the Installer OVA.

Alternatively, click the **Local file** radio button, and browse to the location where the installer OVA is saved on your computer.

b) Click **Next**.

Step 5 In the **Select name and location** screen, perform these steps:

a) In the **Name** field, enter a name for the installer VM.

b) In the **Browse** tab, choose the data center where you want to deploy Cisco Container Platform.

c) Click **Next**.

Step 6 In the **Select a resource** screen, choose the cluster where you want to run the installer VM, and then click **Next**.

Step 7 In the **Review details** screen, verify the template details, and then click **Next**.

Step 8 In the **Select storage** screen, perform these steps:

a) From the **Select virtual disk format** drop-down list, choose **Thin Provision** to allocate storage on demand.

b) In the **Filters** tab, choose a destination datastore to store the installer VM.

c) Click **Next**.

Step 9 In the **Select networks** screen, perform these steps:

a) From the **Destination Network** column, choose a network for each source network that is available in the installer VM.

> **Note** The selected network must have access to vCenter and the tenant VM networks.

b) Click **Next**.

Step 10 In the **Customize template** screen, follow these steps to customize the deployment properties:

a) Expand **CCP**, in the **vCenter hostname or IP address** field, enter the IP address of the vCenter instance that you want to use.

b) In the **vCenter username** field, enter the username of the user with administrator access to the vCenter instance.

c) In the **vCenter password** field, enter the password of the vCenter user.

d) In the **SSH public key for node access** field, enter the ssh public key for the Cisco Container Platform Control Plane. You can use this key to ssh to the Control Plane VMs and installer VM.

> **Note**
> • Ensure that you enter the public key in a single line.
>
> • You can use the private key to securely connect to the Cisco Container Platform Control Plane VMs through SSH, after installation.
>
> • If you do not have an SSH key pair, you can generate it using the `ssh-keygen` command.

e) In the **Base VM image** field, enter the Cisco Container Platform tenant base VM name from Step 5 of the Importing Cisco Container Platform Tenant Base VM task.

f) From the **Network Plugin for tenant K8s clusters** drop-down list, choose one of the following options for network connectivity:

- **Contiv VPP**

- **ACI CNI**

- **Calico**

g) In the **CCP Controller master node virtual IP** field, enter the IP address that is used to support a Cisco Container Platform upgrade.

h) In the **CCP control plane admin password** field, enter the password of the Cisco Container Platform control plane.

i) Expand **Advanced**, in the **Cluster name** field, enter a unique name for the Control Plane cluster.

Note Deployment of the Installer VM fails if another Control Plane cluster with the same name already exists on your HyperFlex instance. You must ensure that you specify a unique name for the Control Plane cluster.

j) In the **CIDR for kubernetes pod network** field, `192.168.0.0/16` is displayed as the default pod network CIDR of the Kubernetes cluster for the control plane. If the CIDR IP addresses conflict with the tenant cluster VM network or the vCenter network, you need to set a different value for the CIDR.
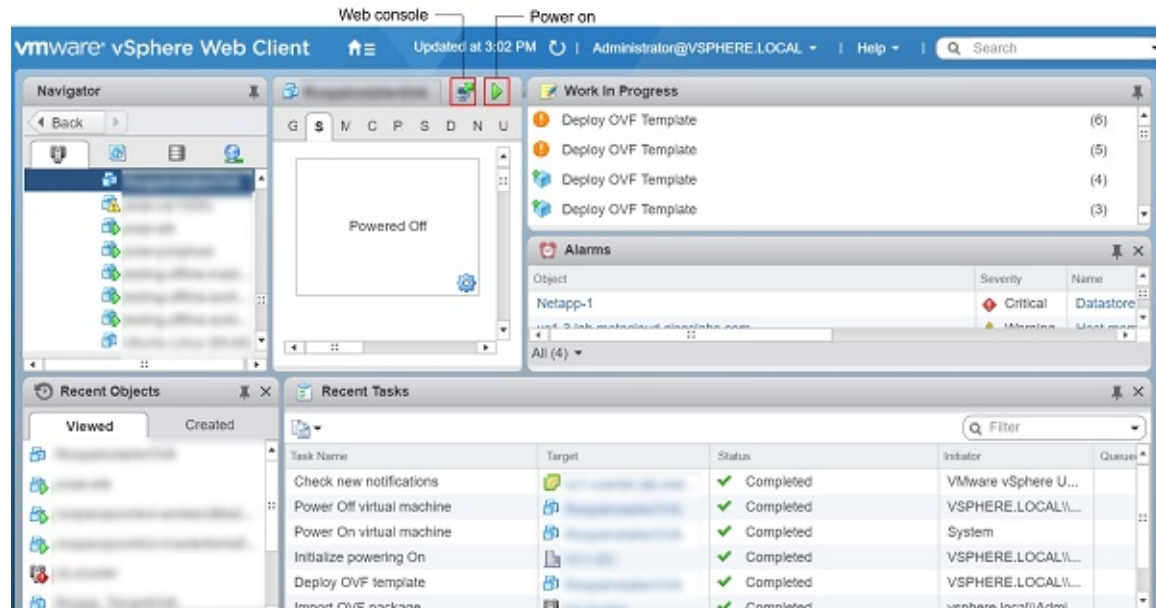
k) Click **Next**.

Figure 3: Customize Template Screen

Step 11 In the **Ready to complete** screen, verify the installer VM deployment settings, and then click **Finish**.

Step 12 Click the **Power on** button to switch on the VM.

Figure 4: Switching on Installer VM

Once the Installer VM is switched on, the Cisco Container Platform Control Plane that consists of four VMs is deployed. It may take a few minutes for the deployment to complete. You can view the status of the Installer using the **Web console** of vCenter. When the installation is complete, you can access the Cisco Container Platform web interface using the URL from the **Web console**.

Uninstalling Cisco Container Platform

Uninstalling Cisco Container Platform removes all containers and services associated with it. You will no longer be able to create or manage tenant clusters on this Cisco Container Platform instance.

Step 1   Open the Cisco Container Platform web interface and delete all the Kubernetes tenant clusters that belong to the Cisco Container Platform instance.

For more information on deleting Kubernetes clusters, refer to the *Cisco Container Platform User Guide*.

Step 2   Follow these steps to delete the Control Plane and installer node VMs:

a)   In vSphere web client, right-click the VM, choose **Power** > **Power off** and then click **Yes** in the confirmation dialog box.

b)   Right-click each VM and choose **Delete from Disk**.