



Overview

The HxBench application is delivered in the form of an Open Virtual Appliance (OVA) package. Setting up an application involves deploying a virtual machine, configuring the virtual machine, and configuring the HxBench application.

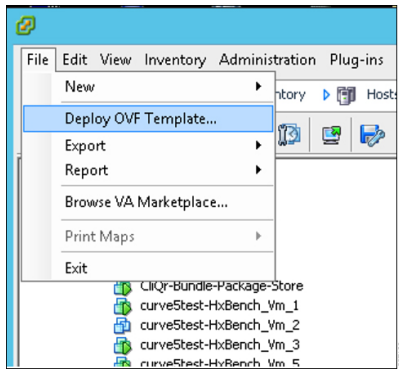
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Set Up an HxBench Virtual Application

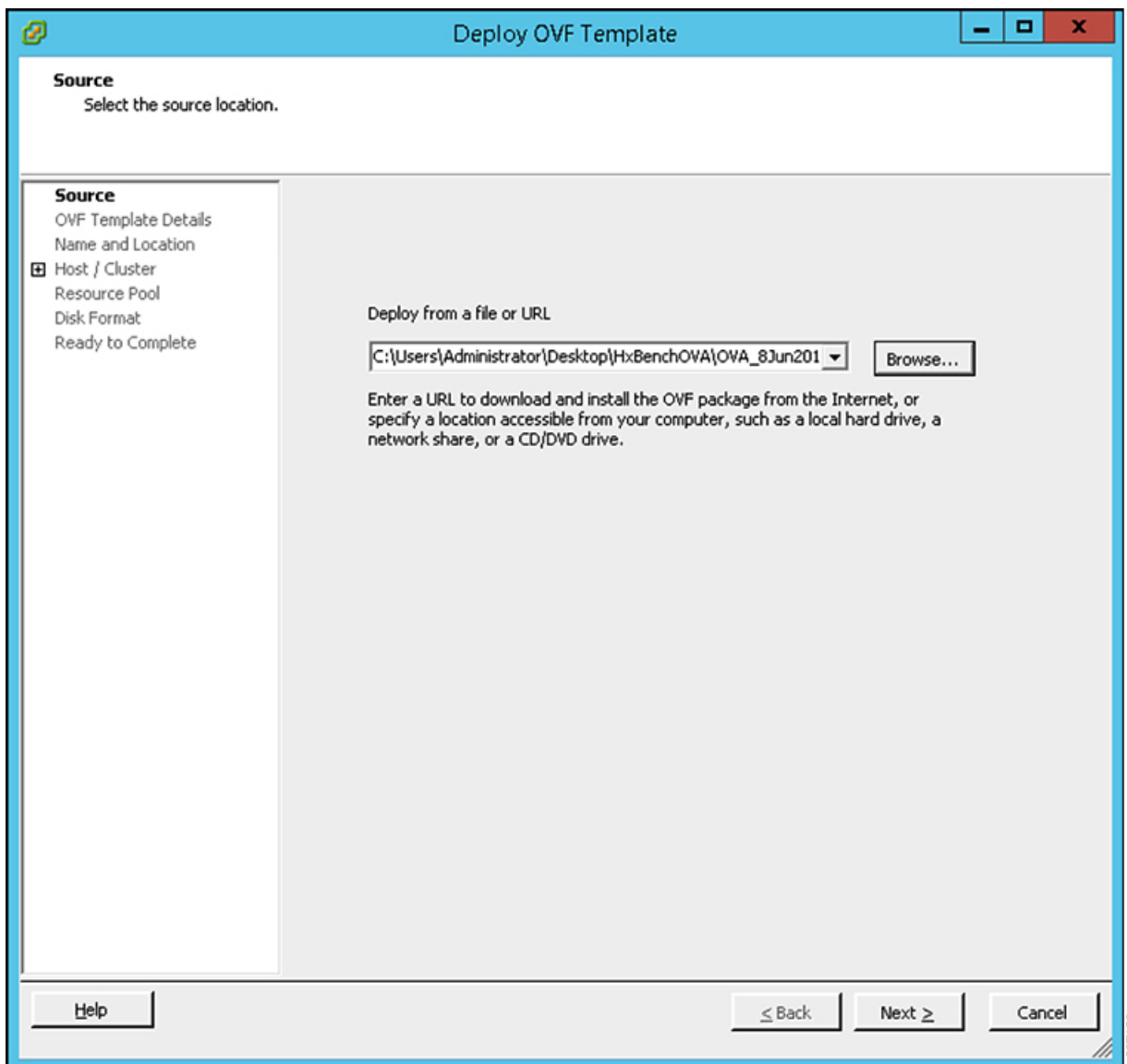
Deploy the vCenter Controller

Deploy the vCenter Controller as follows:

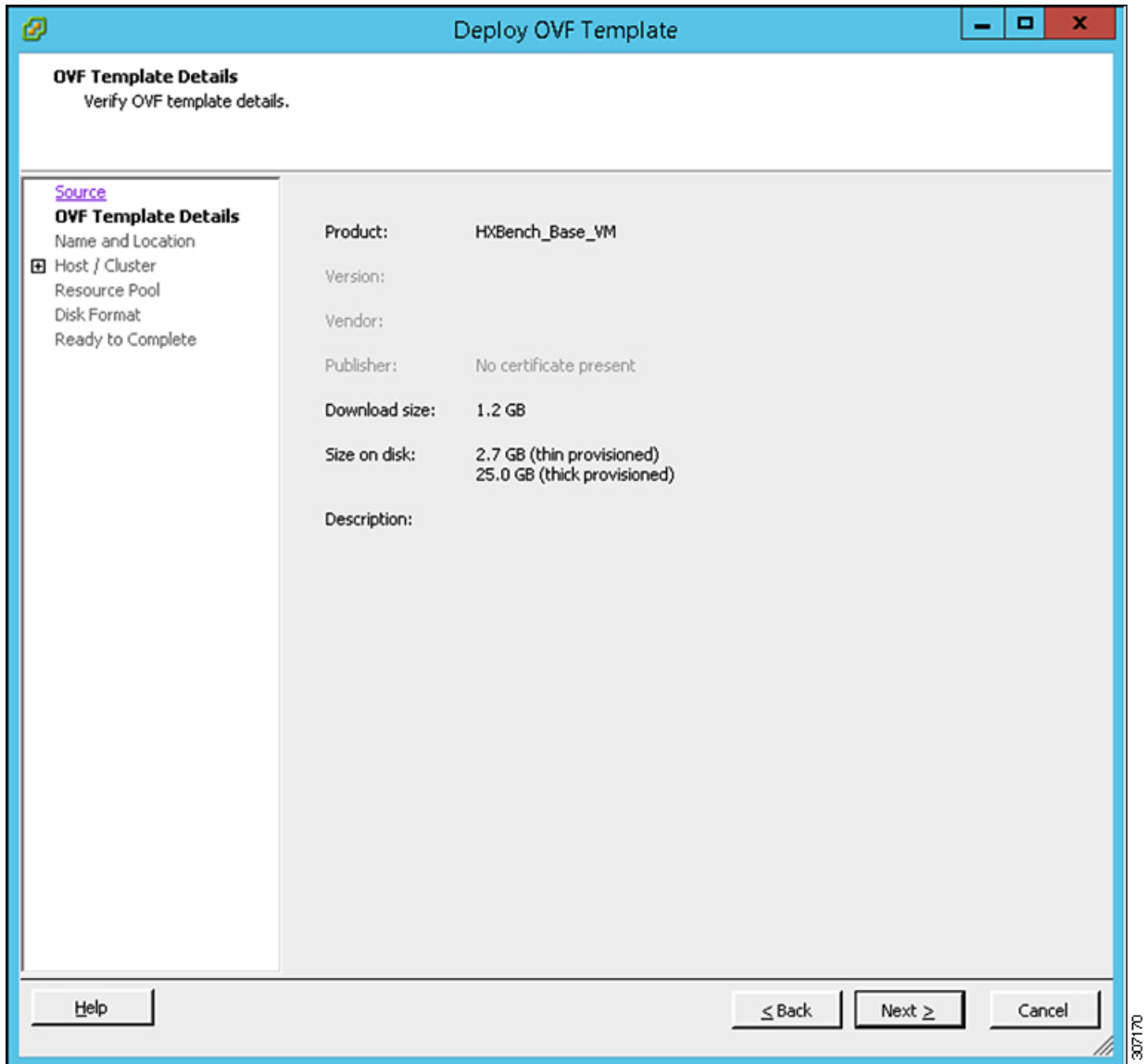
- Step 1** From the vSphere Web Client Navigator, select **File > Deploy OVF Template**.



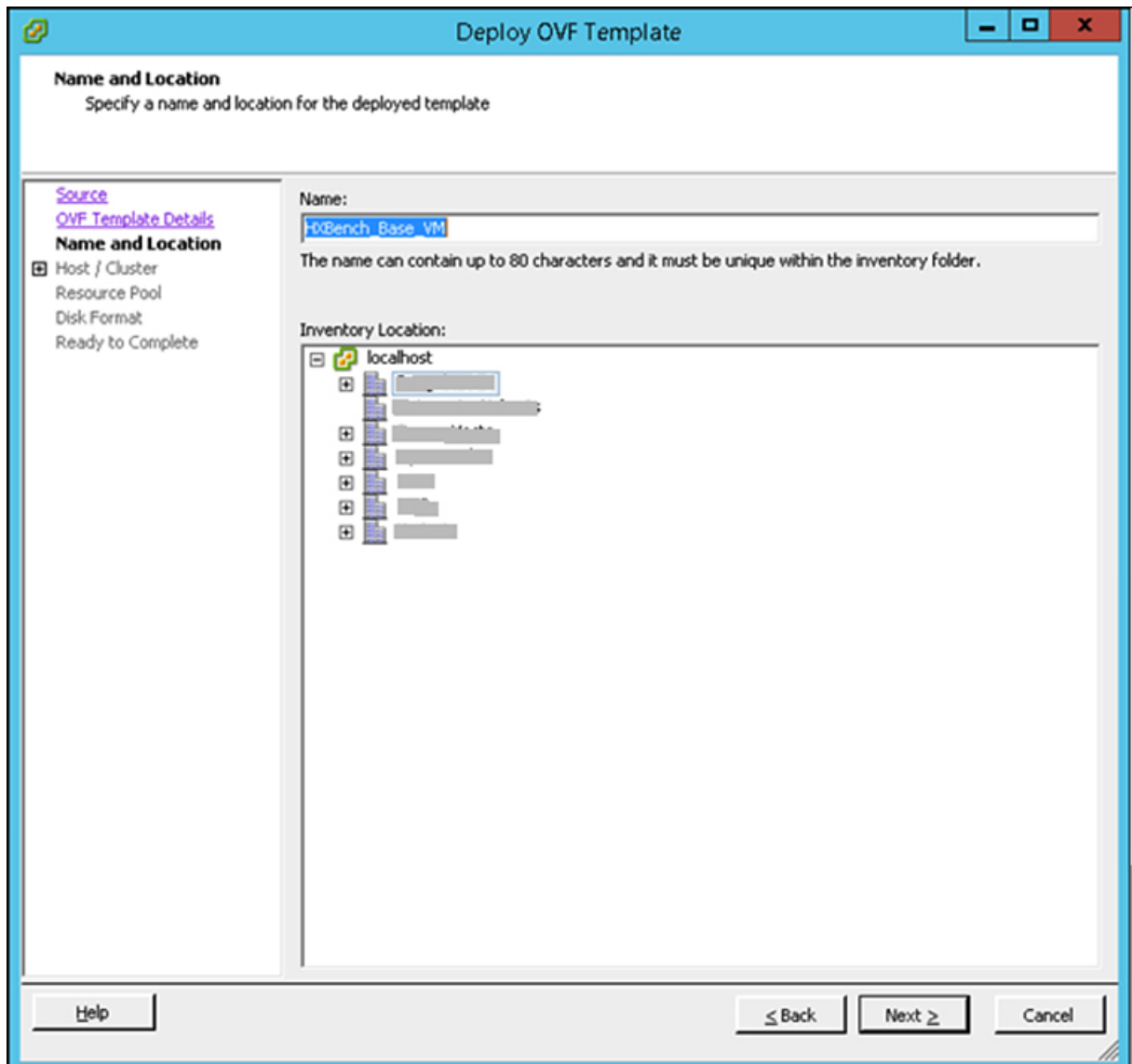
Step 2 Select the *OVA* file you want to deploy from the disk.



Step 3 Read the summary in **OVF Template Details** and click **Next**.

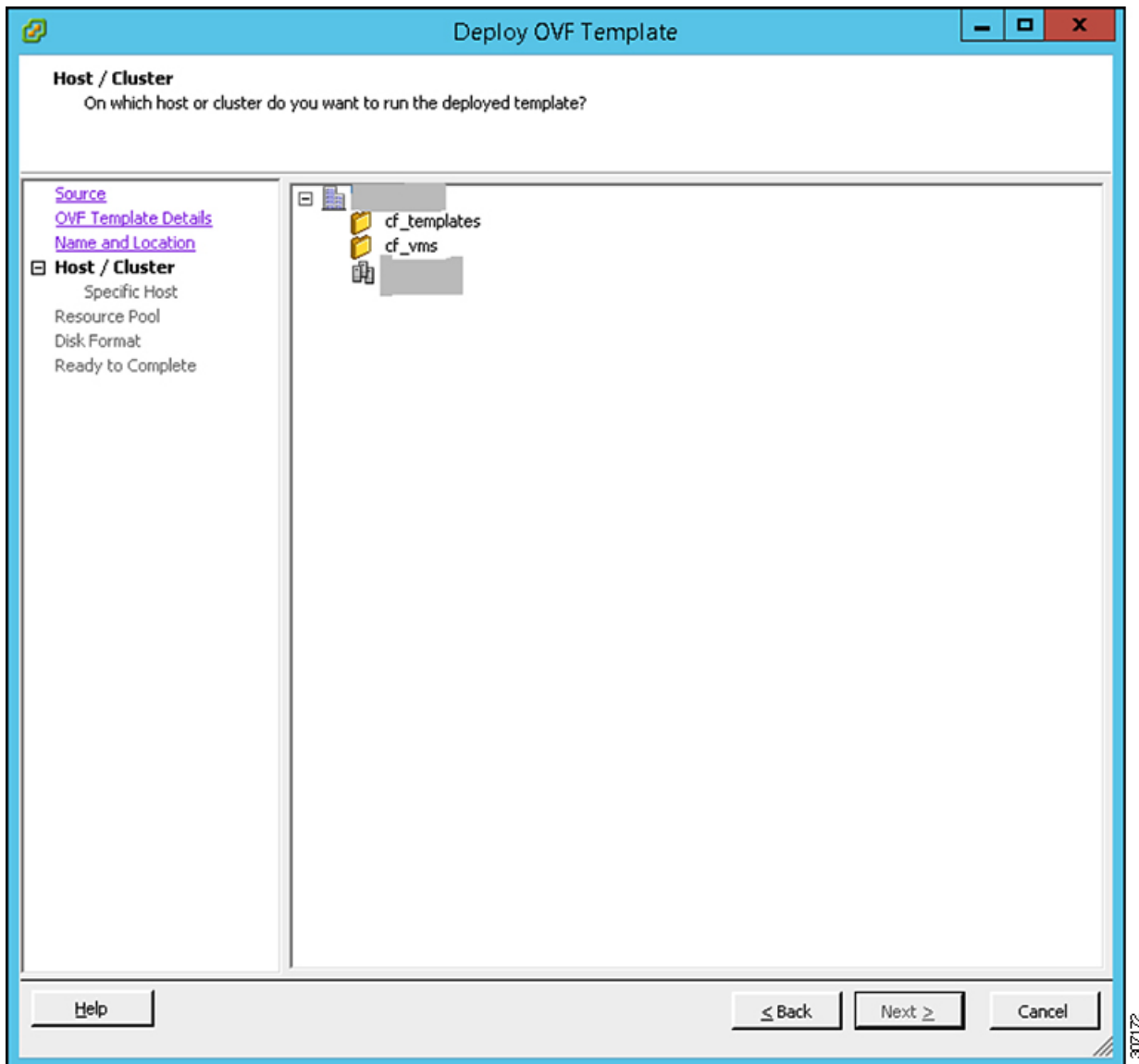


Step 4 Specify a **Name** for the VM. Click **Next**.

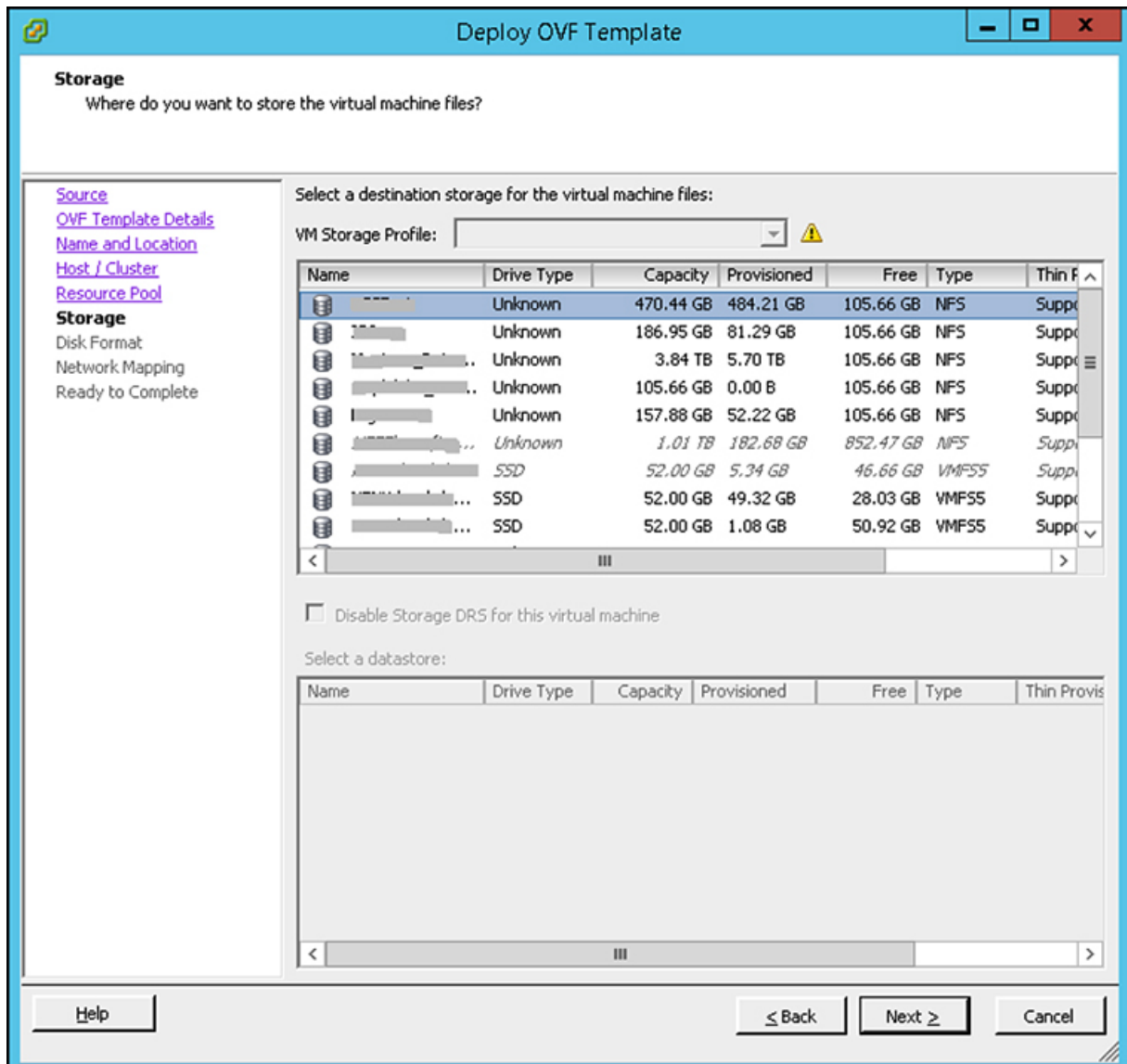


The name can contain up to 80 characters and it must be unique within the inventory folder.

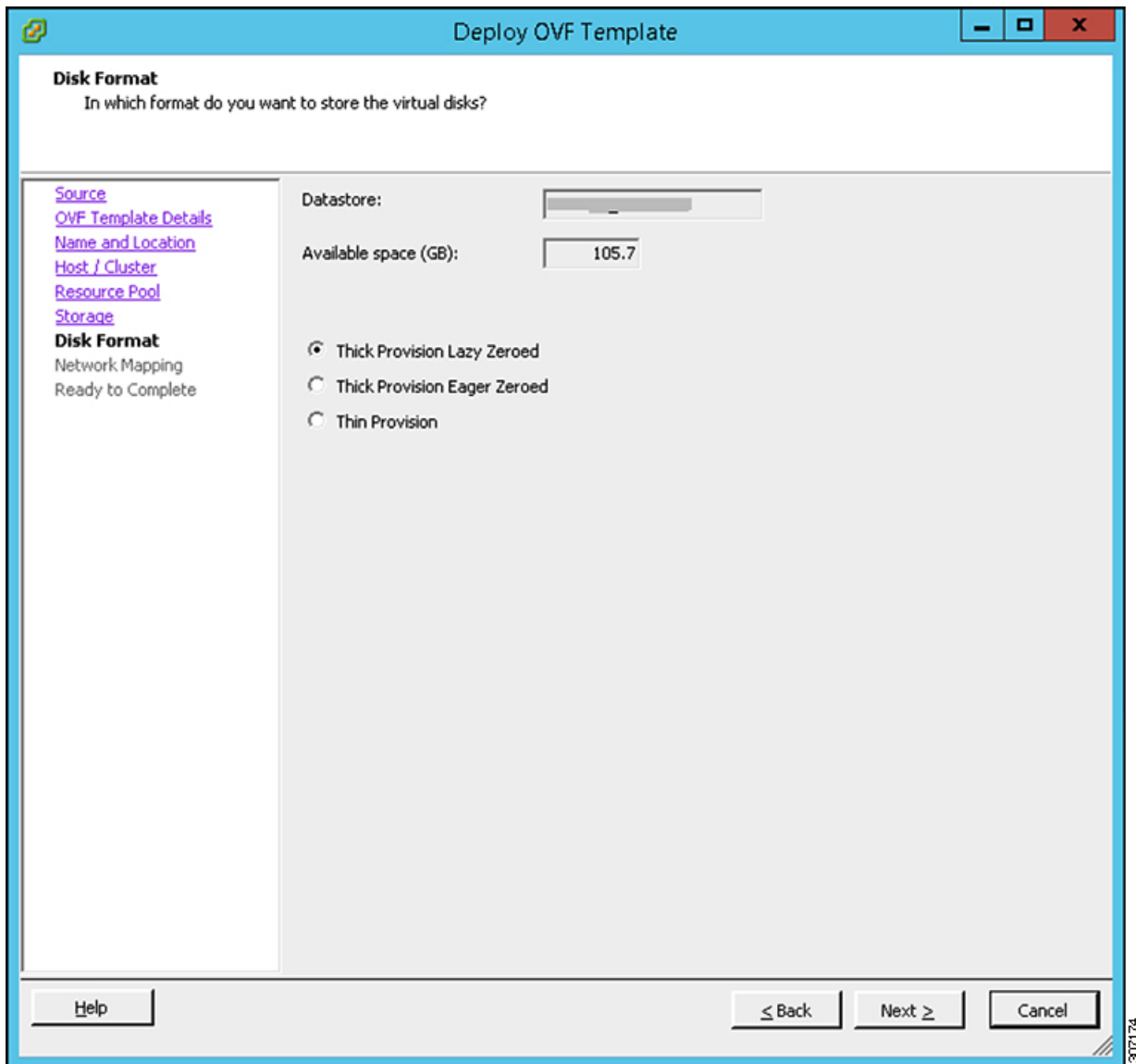
Step 5 Select the **Host / Cluster** where you want to deploy the VM. Click **Next**.



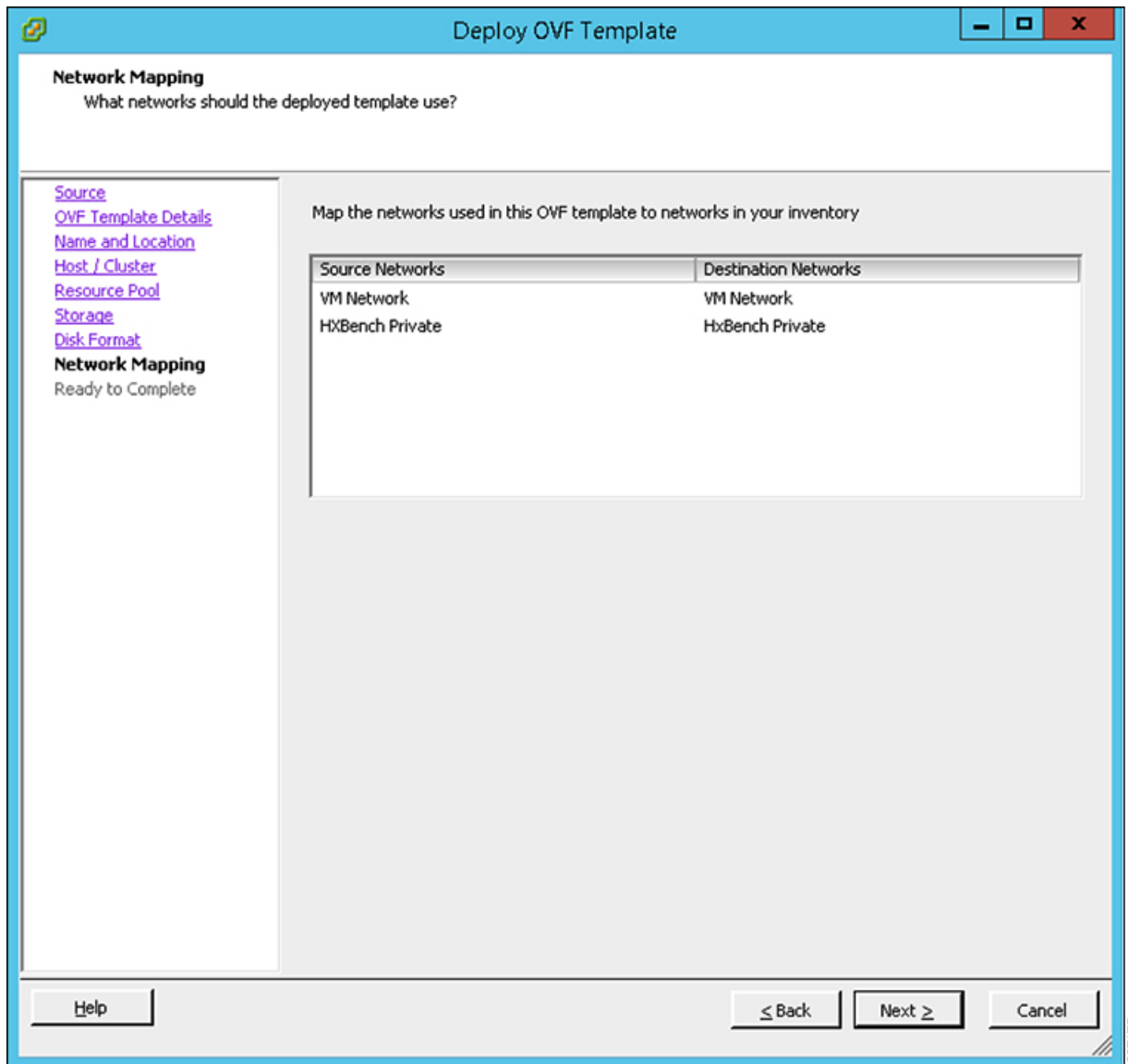
Step 6 Under **Storage**, select the datastore where you want to deploy the VM. Click **Next**.



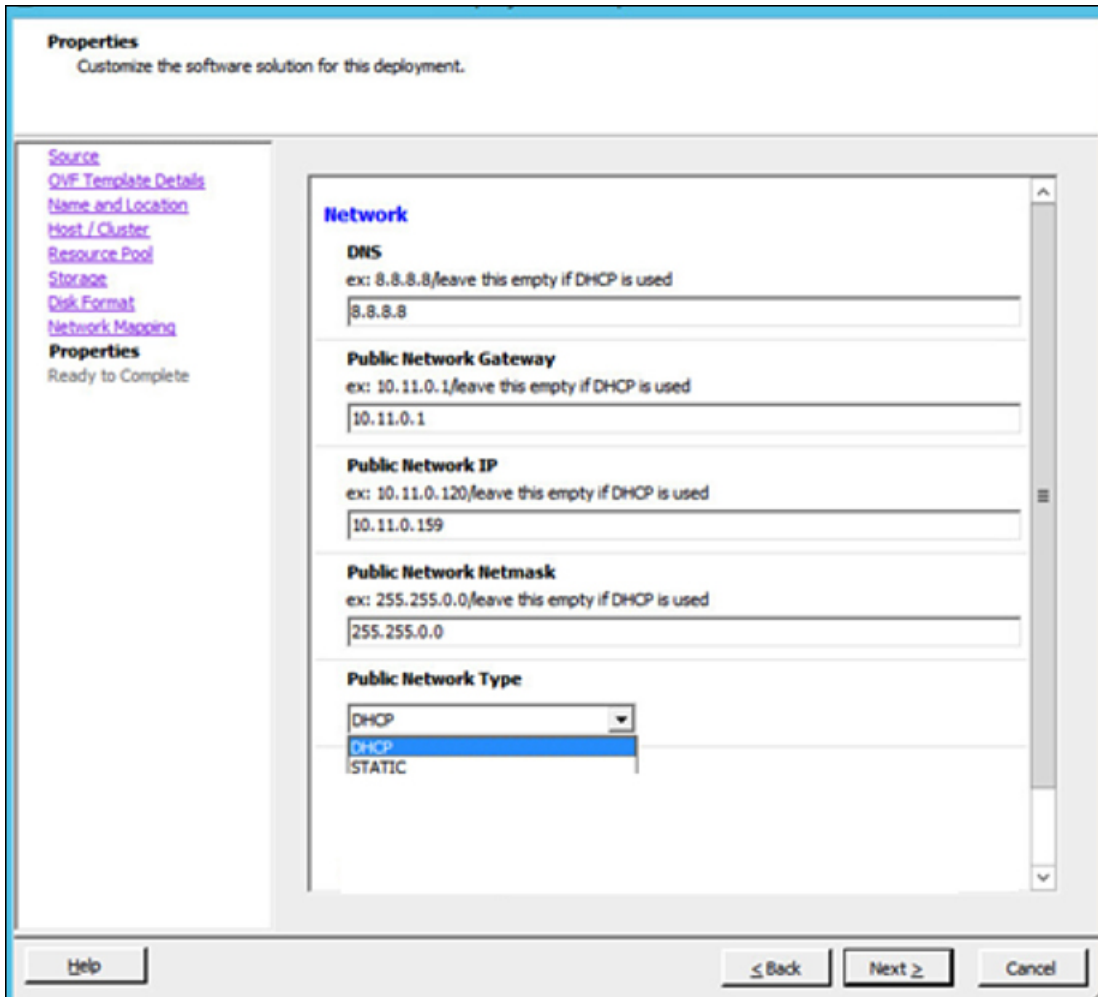
Step 7 Select the **Disk Format**. Click **Next**.



Step 8 Under **Network Mapping**, select **HxBench Private**.



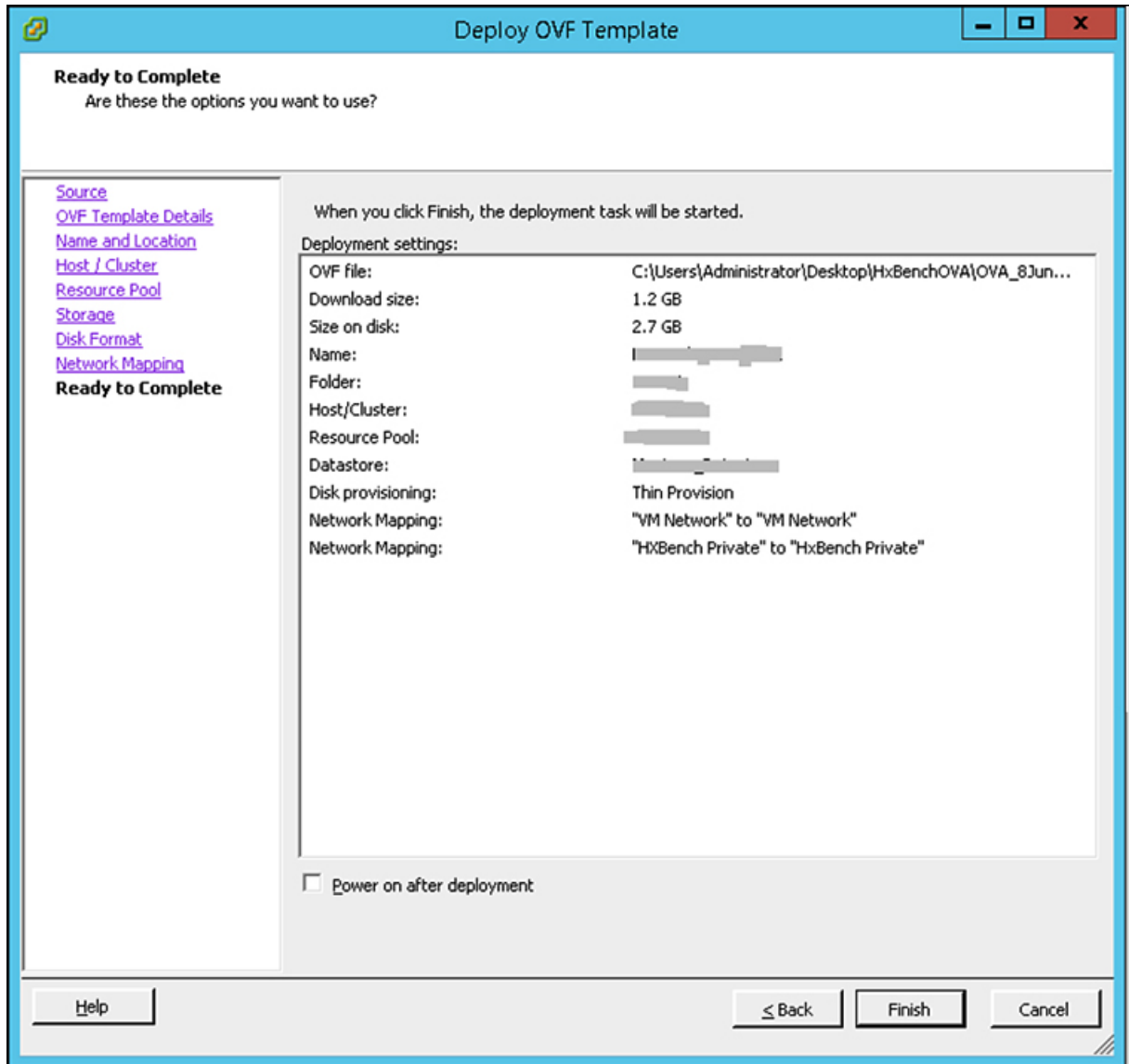
Step 9 Select Network **Properties** to configure the IP address. Either DHCP or Static IP address can be configured for the VM.



Field	Description
DNS field	Leave this space empty if DHCP is used. <i>For example, 8.8.8.8</i>
Public Network Gateway field	Leave this space empty if DHCP is used. <i>For example, 10.11.0.1</i>
Public Network IP field	Leave this space empty if DHCP is used. <i>For example, 10.11.0.120</i>
Public Network Netmask field	Leave this space empty if DHCP is used. <i>For example, 255.255.0.0</i>
Public Network Type field	From the drop-down list, select DHCP or Static .

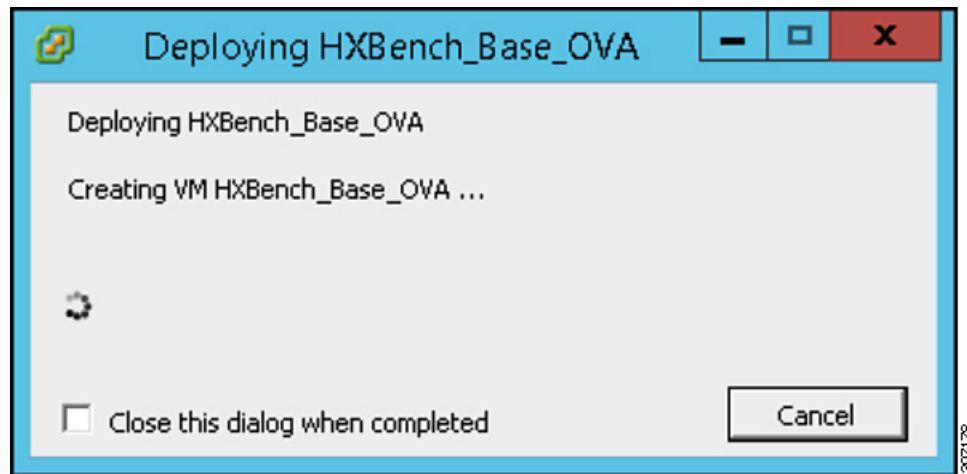
Review the selected options to start deploying the OVA. Click **Next**.

Step 10 Select **Power on after deployment** and click **Finish**.

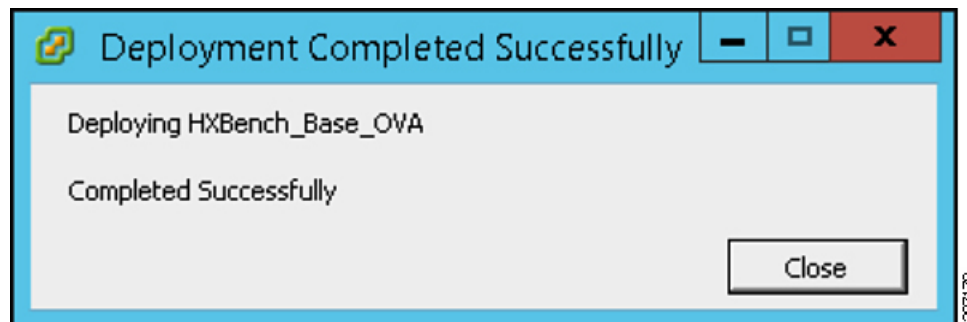


What to do next

Wait for the deployment task to complete.



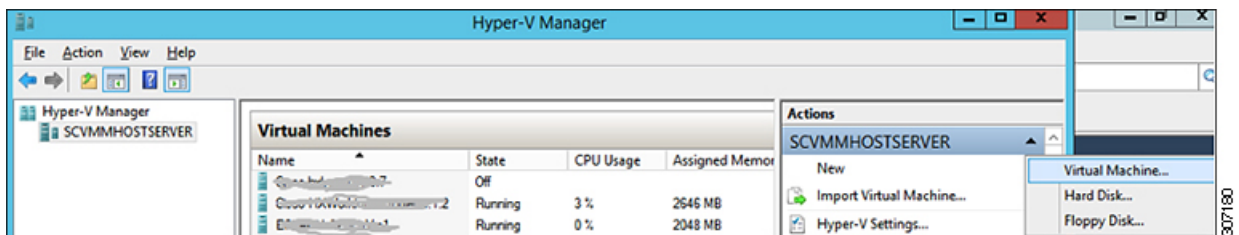
After completion, a success message is displayed.



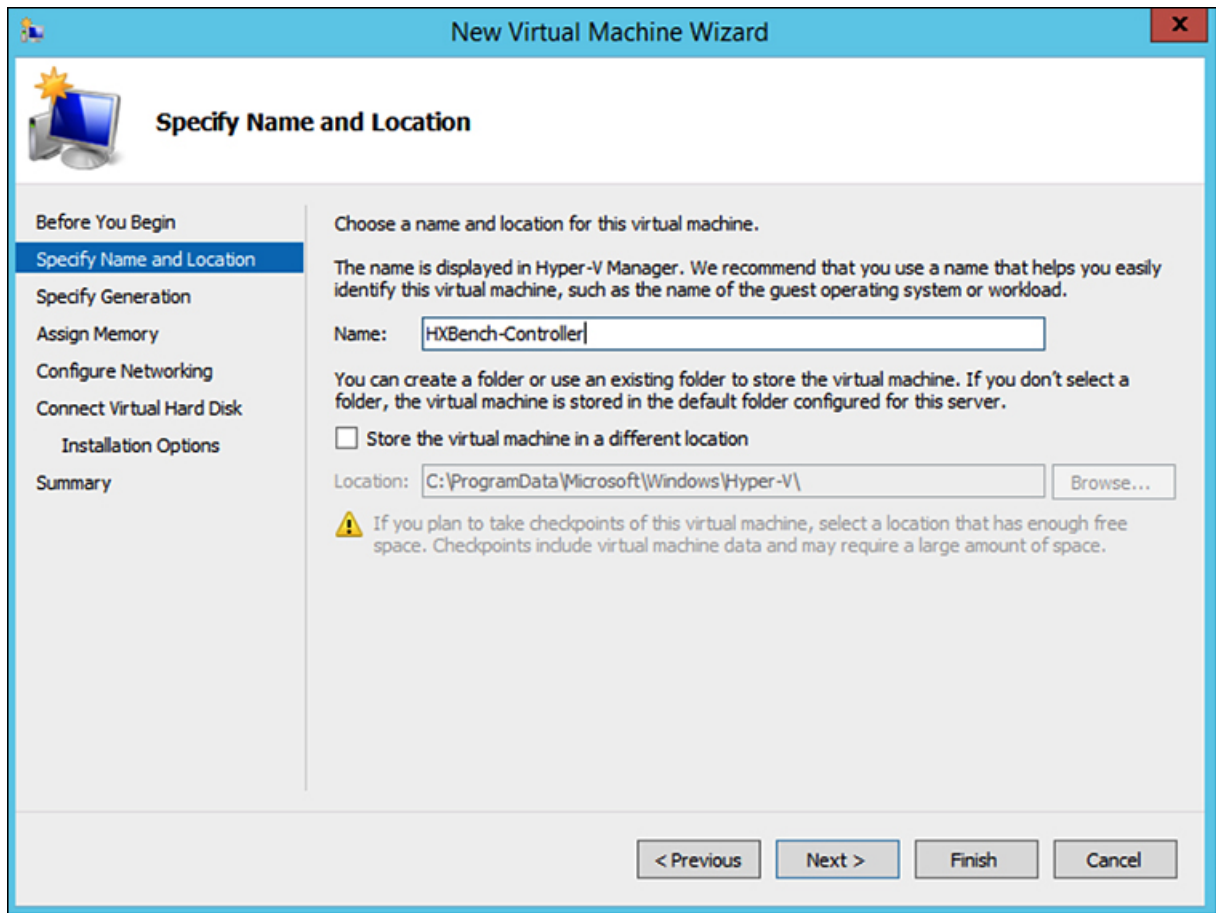
Deploy the Hyper-V Controller

To deploy the Hyper-V controller:

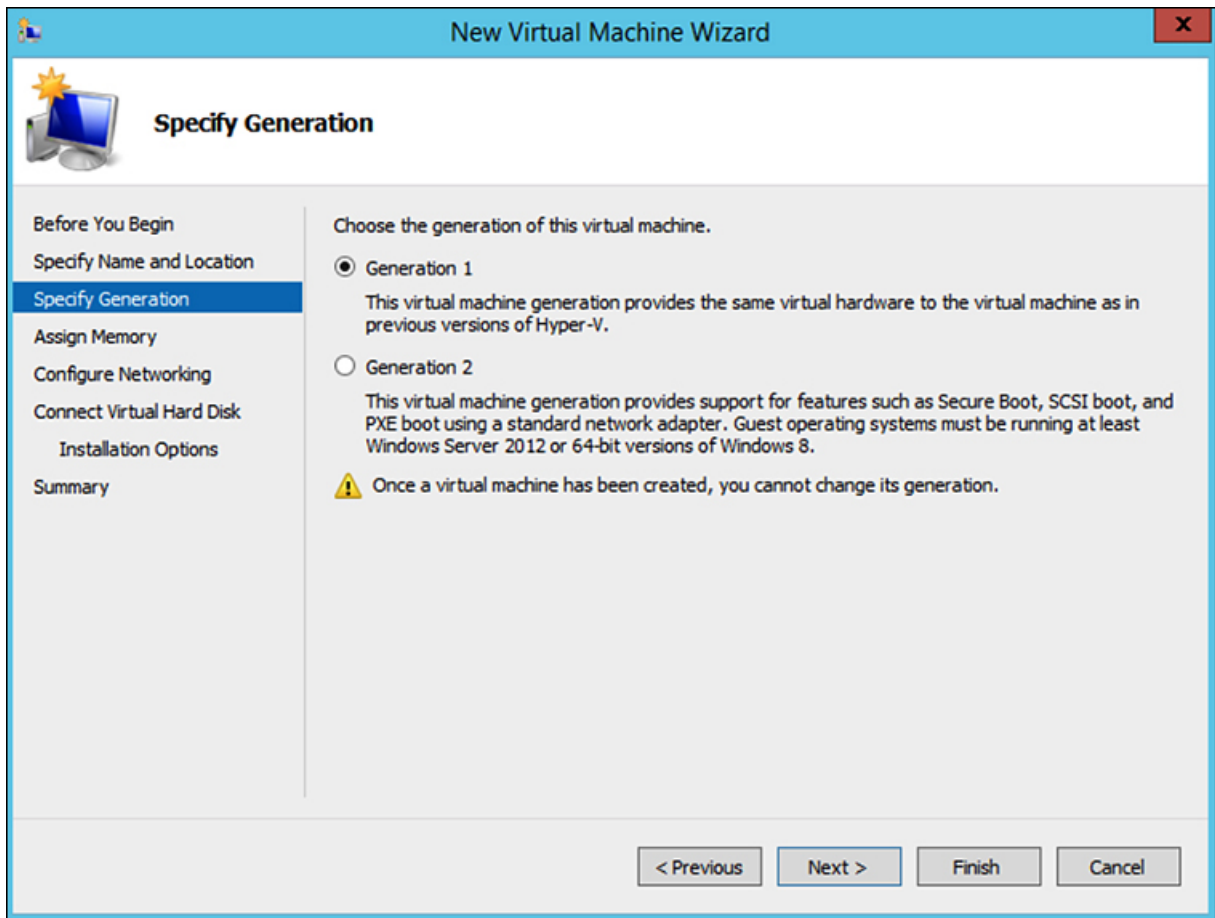
- Step 1** Extract the zip file **Cisco-HXBench-1.3.8.zip** and copy the vhd file **Cisco-HXBench-1.3.8.vhd** to the **Hyper-V server**.
- Step 2** From the HyperV Manager, select the HyperV server where HxBench Controller is to be deployed and select **New > Virtual Machine**.



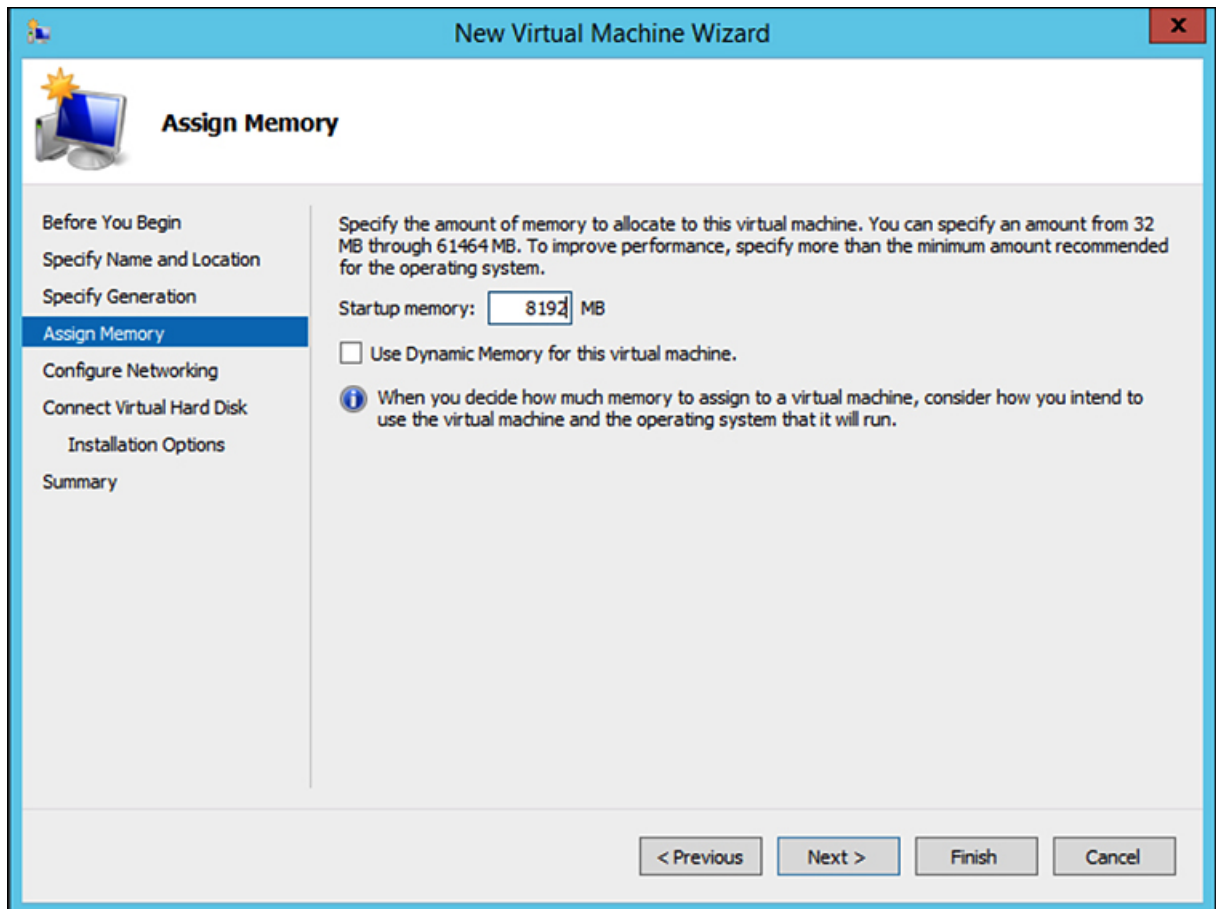
- Step 3** Specify the **Name** of the VM, then click **Next**.



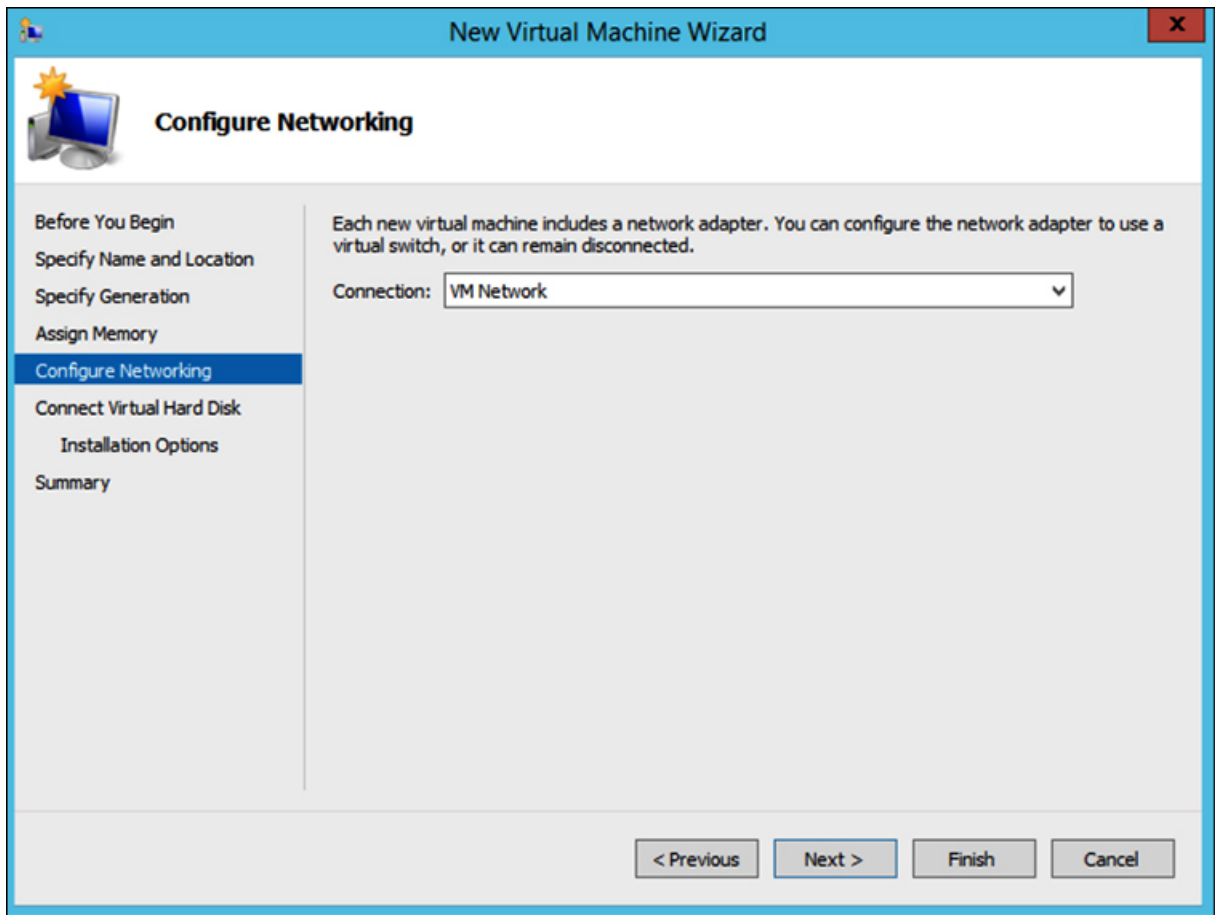
Step 4 Select **Generation 1** for the VM generation.



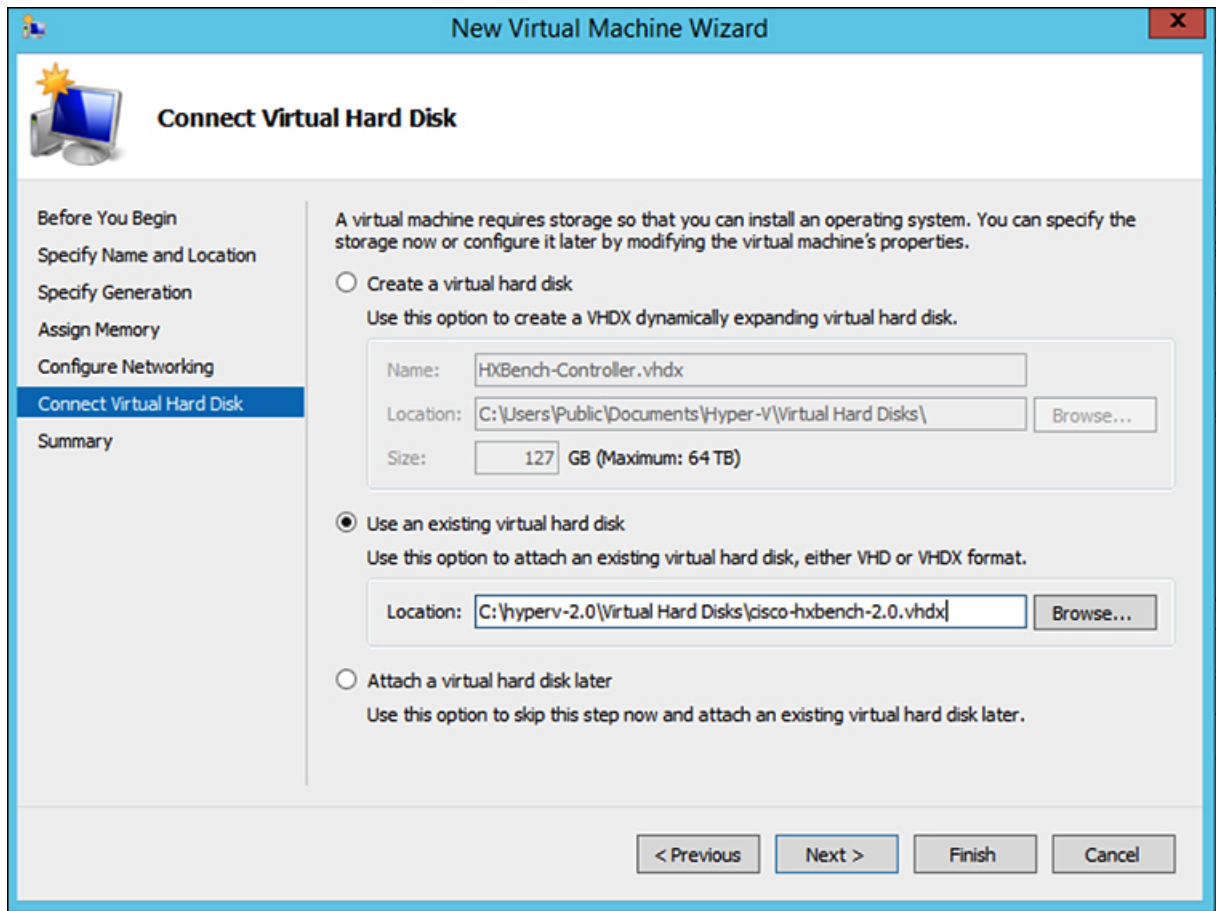
Step 5 Specify **8192 MB** as the memory size, then click **Next**.



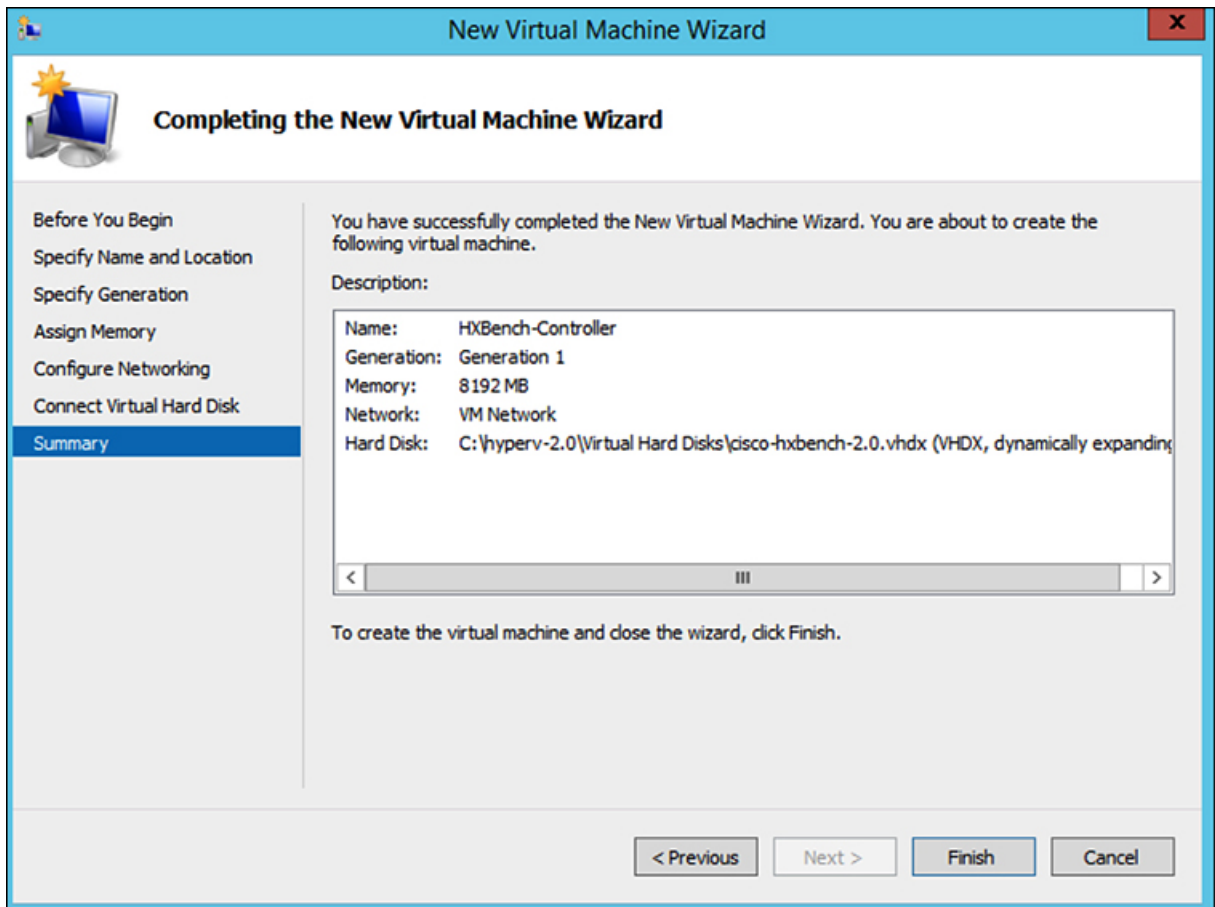
Step 6 Select Network connection **Public Network for HxBench VM**, then click **Next**.



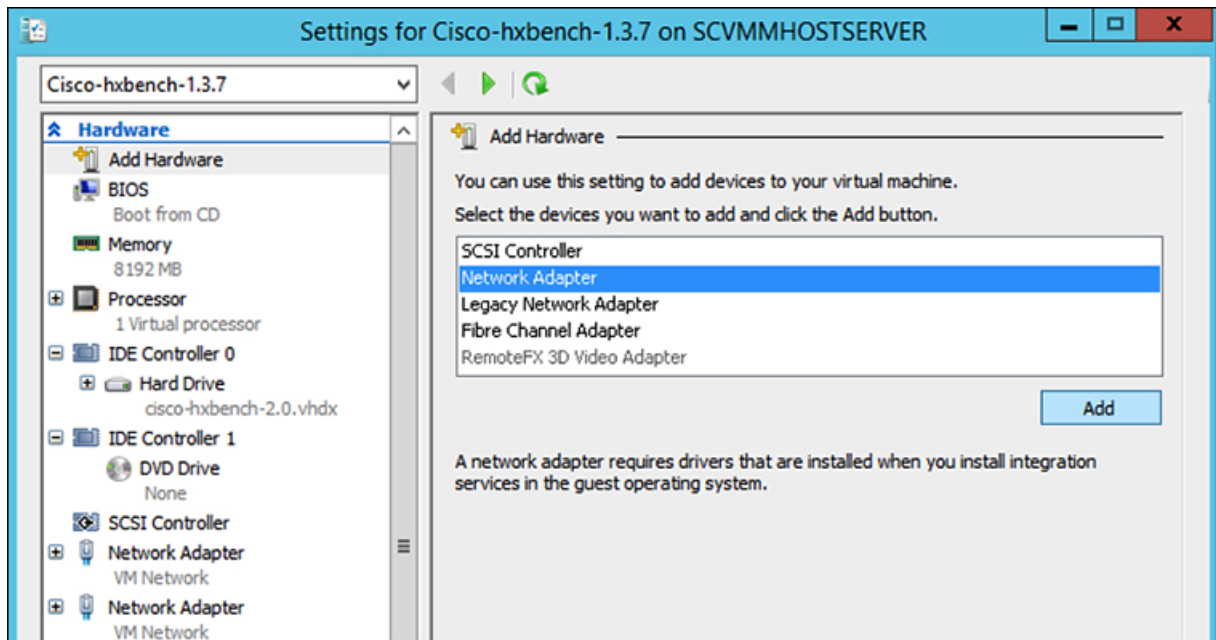
Step 7 Select **Use an existing virtual hard disk**, browse and select the copied **Cisco-HXBench-1.3.8.vhdx**, then click **Next**.



Step 8 Review the selected options to start deploying the vhdx, then click **Finish**.

**Step 9**

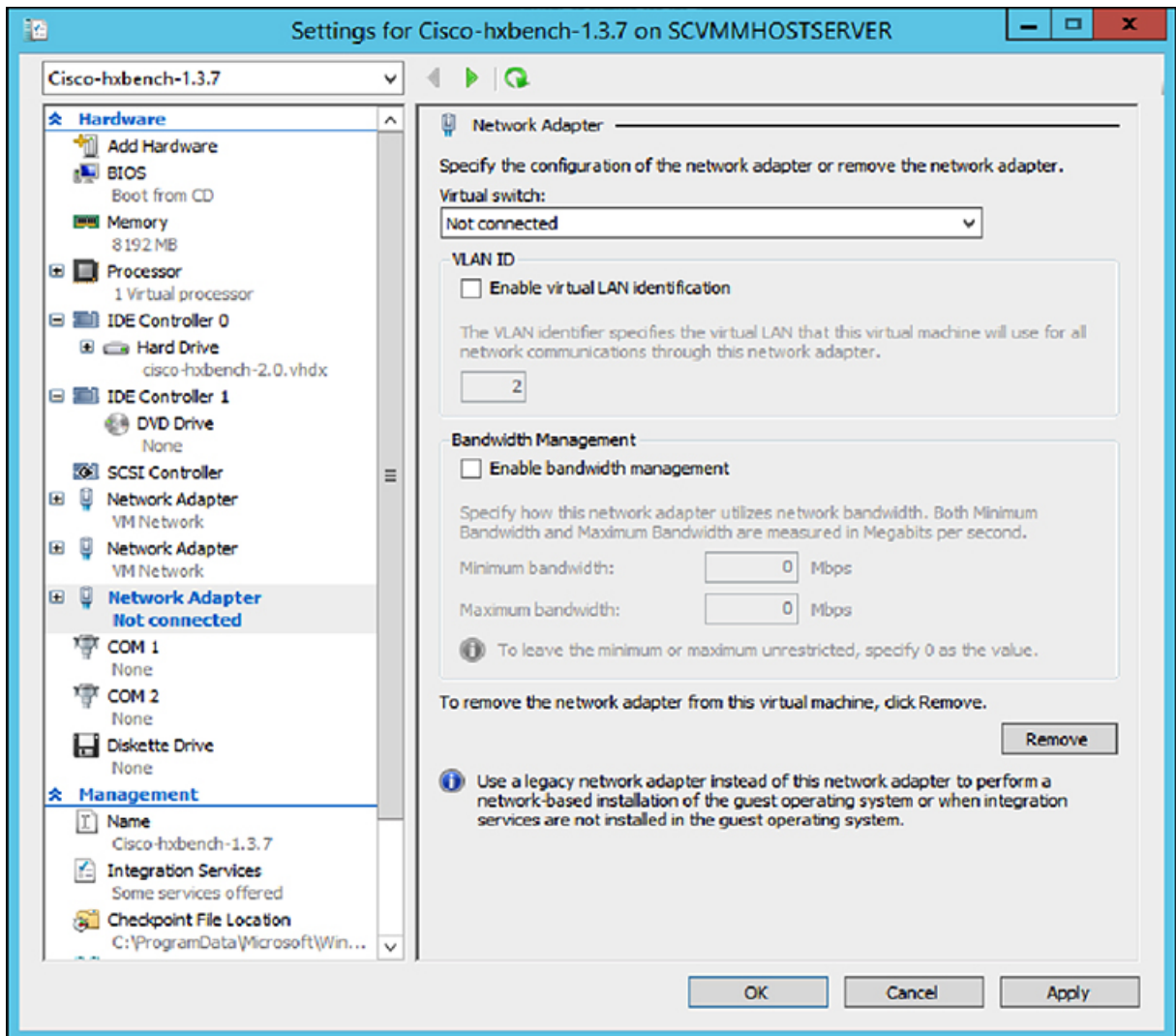
After the completion of the VM deployment, click **VM Settings**. Under the **Add Hardware** tab, select **Network Adapter**, then click **Add**.



Step 10 Choose **Public Network for HXBench VM** under the Virtual Switch.

Step 11 Click **Apply**, then click **OK**.

Step 12 Assign a **VLAN ID** to both the networks, if enabled.



Step 13 Power on the VM by clicking **Start**.

Assign Static IP Address to Hyper-V Deployment Controller

To assign an IP address to the Hyper-V Deployment Controller:

- Step 1** Connect to the console by clicking the **Connect** option.
- Step 2** Log in using the login credentials.
- Step 3** Using your preferred editor, modify the interfaces file `sudo vi /etc/network/interfaces`.
- Step 4** Enter the VM password when prompted.
- Step 5** Add the following line to set the **Dynamic IP Address** for the Controller:

```
auto eth0
iface eth0 inet dhcp
```

Step 6 Add the following line to set the **Static IP Address** for the Controller:

```
auto eth0
iface eth0 inet static
address <ip address>
netmask <netmask ip>
gateway <gateway ip>
dns-nameservers <dns-server ip>
```

Step 7 Execute the following command: - `sudo ifup eth0`

Step 8 Use the same IP address assigned to access the HxBench Controller and the HxBench Web Interface.

Related Topics

[Deploy the Hyper-V Controller](#), on page 11

Configure the Virtual Machine

Step 1 Power on the virtual machine.

Step 2 Log in to the virtual machine from the HxBench Web Interface using administrator credentials.

Username	<appadmin> username
Password	Default password

Step 3 If you selected DHCP during deployment, the HxBench Application starts running when the VM boots up with the assigned DHCP address. Make a note of the IP address assigned to the VM.

If you selected static IP address, use the same to access the HxBench Controller and the HxBench Web Interface.

Access the HxBench Web Interface

To access the HxBench Web Interface, enter `http://<IP address of the VM>:8000` or `http://<IP address of the VM>:8000/hxbench/index.html` in your browser.

Log in to the HxBench Web Interface using administrator credentials.

Username	appadmin
Password	<admin> password

Configure the Host in Hyper-V

Before running the test, configure the host as follows:

Note Perform the following steps on all hosts.

Step 1 From the Powershell CLI, enter:

```
>Set-ExecutionPolicy Unrestricted  
>enable-wsmancredssp -role "Server" -Force
```

Step 2 Copy and Run the following file: “/home/appadmin/host_configuration.ps1” from the deployed HxBench Controller to **all Windows HyperV Host** and in Powershell execute the following: **./host_configuration.ps1**.

Step 3 Use the same to access the HxBench Controller and the HxBench Web Interface.

HX Bench picks up the hostname and tries to deploy VMs on the same. If it fails to resolve the hostname, then VM deployment fails.

If this occurs, perform the following steps:

a) Add DNS IP and FQDN of the host to `/etc/hosts` file in the controller using the below commands:

```
sudo vi /etc/hosts  
<IP-address> <FQDN>
```

Configure the Host in vCenter

HxBench picks up the hostname and tries to deploy VMs on the same. If it fails to resolve the hostname, then VM deployment fails.

Add DNS IP and FQDN of the host to `/etc/hosts` file in the controller using the below commands:

```
sudo vi /etc/hosts  
<IP-address> <FQDN>
```

Configure the HxBench Application

During initial login to the HxBench application after the installation, perform the following steps.

Step 1 Upload Vdbench software to the HxBench controller.

a) Download Vdbench software version 5.04.06 from the Oracle website. Download the `vdbench50406.zip` file from the link: <http://www.oracle.com/technetwork/server-storage/vdbench-downloads-1901681.html>.

b) Click **Start**. Upload the *vdbench50406.zip* file to the HxBench controller using the **Upload** button.

Note Uploading Vdbench software to the HxBench controller is a one time activity.

Step 2 Upon successful completion of Vdbench software upload, click **Next**. Provide your server details (vCenter or Hyper-V, shown as follows) where the tests should run. Complete the following fields and click **Save**.

Note Use an account that has administrator privileges to create or delete a virtual machine.

Table 1: vCenter Server Details

Field	Description
Host Name	vCenter hostname
User Name	<admin> username
Password	<admin> password

Table 2: Hyper-V Server Details

Field	Description
Node Name	Name of Hyper-V cluster
Host Name	Hyper-V hostname (use Add option for adding more hosts)
User Name	<admin> username
Password	<admin> password

Note The user of the host should have all access to that host, and be able to create a session from powershell.

What to do next

After successful addition of vCenter, you will be redirected to the **Run Test** workflow.

Validate the Network on vCenter Controller

After adding the vCenter server, validate the network setup by performing the following checks:

- Query the network port group details of NIC2 in the HxBench controller.
- Check the type of switch to which the port group is associated.
- If the port group is connected to Virtual Distributed Switch (VDS), check whether all the hosts in the cluster are connected to the VDS and NIC2 port group.



Note If the hosts are not connected to the VDS, you will see a warning that the network setup is partial. In such case, test VMs will be deployed to hosts only after the network setup is complete. You can manually update the configuration to connect all the hosts to a specific port group and VDS.

- If the port group is connected to the Virtual Standard Switch (VSS), the validation check will query the network and VLAN details of all the host switches.
 - If all the hosts are configured with the same port group and VLAN ID, the validation is successful and HxBench controller redirects to the Run Test workflow.
 - If some of the hosts are not configured with same port group and VLAN ID, the validation status is marked as **PARTIAL**. You can either continue to use the partial setup or alternatively, or you can create a new network setup on all hosts. Click **Cancel** to use the partial setup.

If you choose to create a new network setup on all hosts, provide the following details and click **Create Network**.

Field	Description
VLAN ID	If the network switch is configured to allow traffic from specific VLAN IDs, make sure to update this VLAN ID to the configuration.
Host Name	For example, <i>10.11.1.xxx</i>
Switches	Choose vSwitch from the drop-down list.

- The HxBench controller assigns static IP addresses to all the test virtual machines. The static IP address is assigned from a private IP address range of *169.254.0.xxx*.

