

Module 3: Using Cloud Manager to Deploy Cloud Volumes ONTAP

Exercise 3: Deploy Cloud Volumes ONTAP

In this exercise, you use Cloud Manager to deploy Cloud Volumes ONTAP.

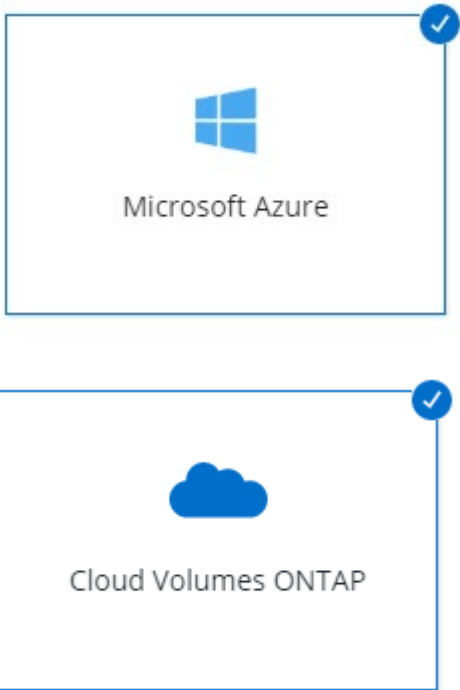
Objectives

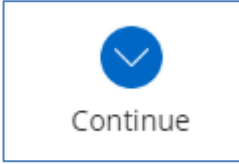
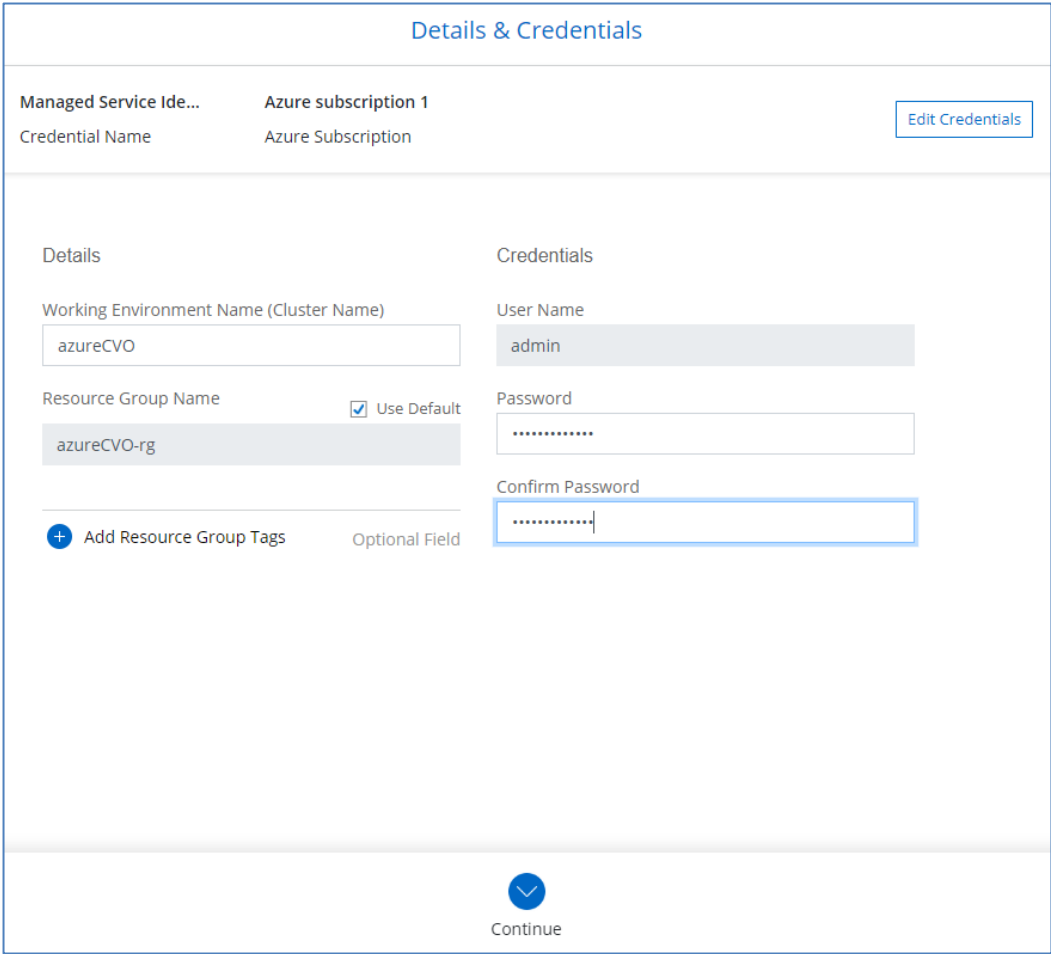
This exercise focuses on enabling you to do the following:

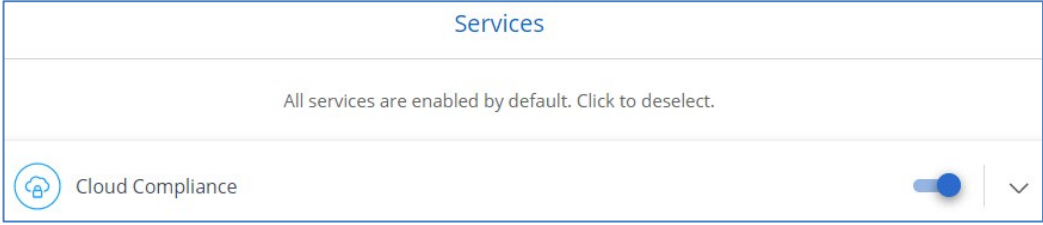
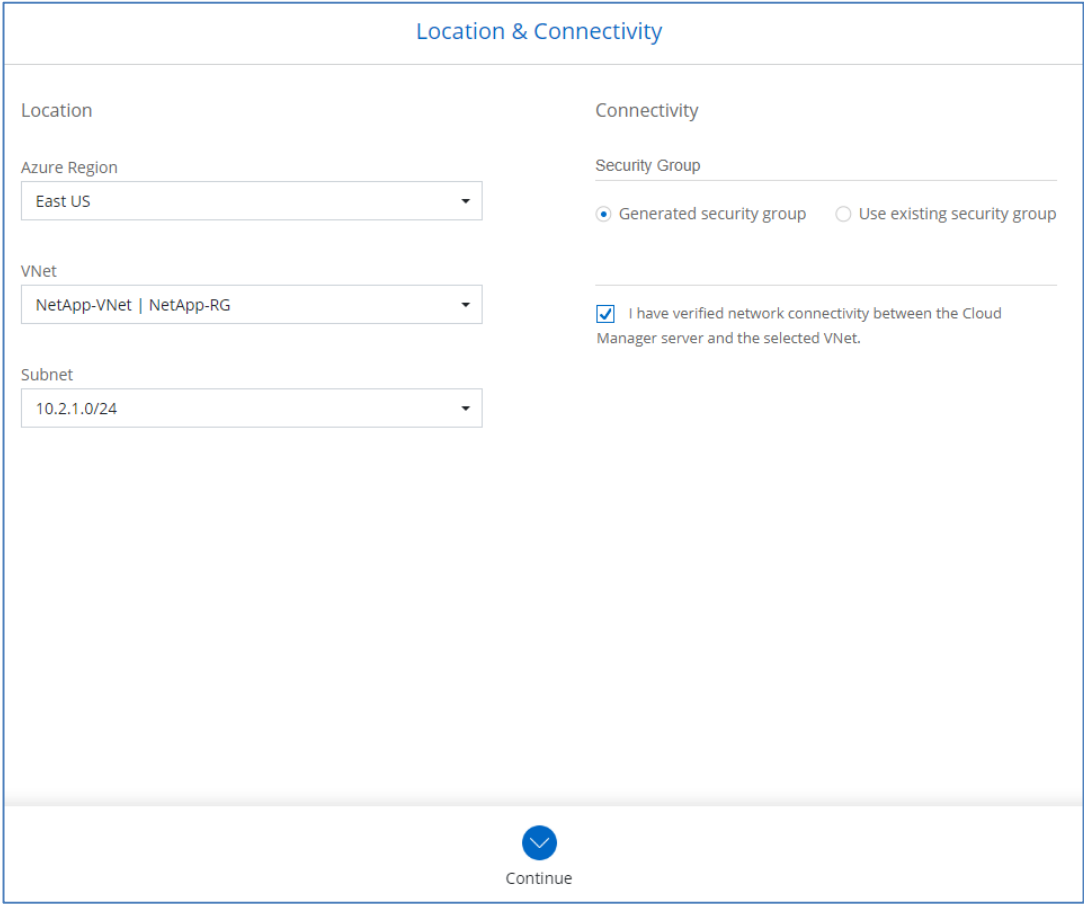
- Deploy Cloud Volumes ONTAP

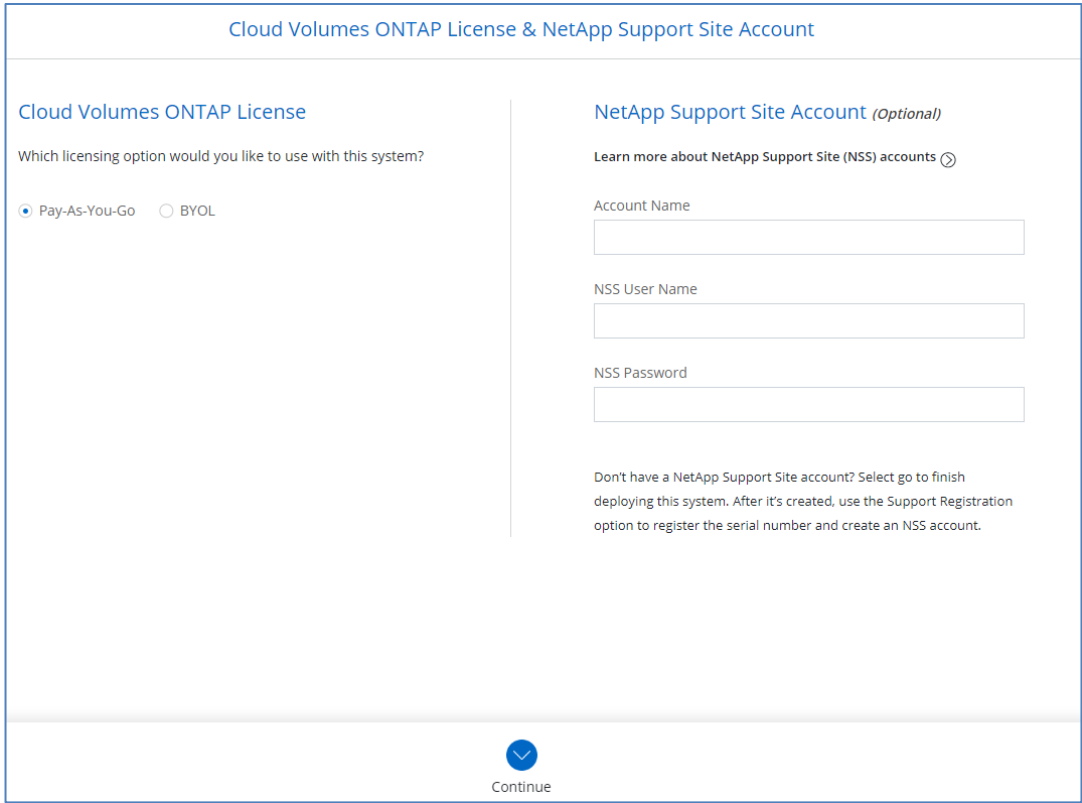
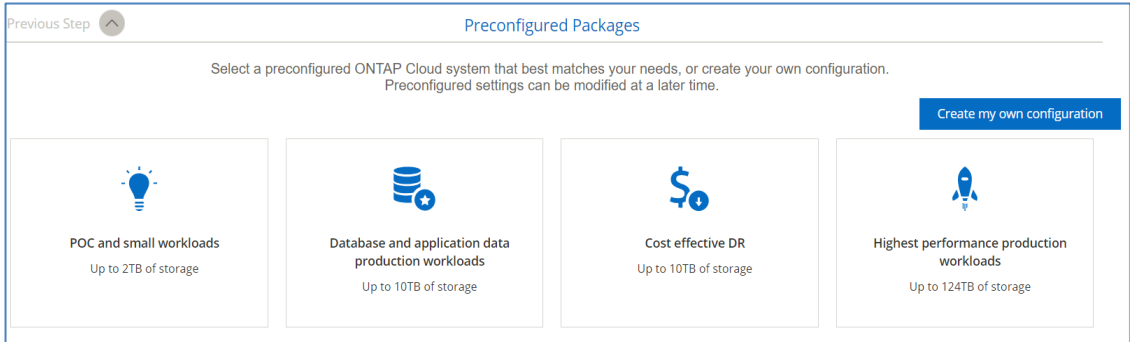
Task 1: Deploy Cloud Volumes ONTAP

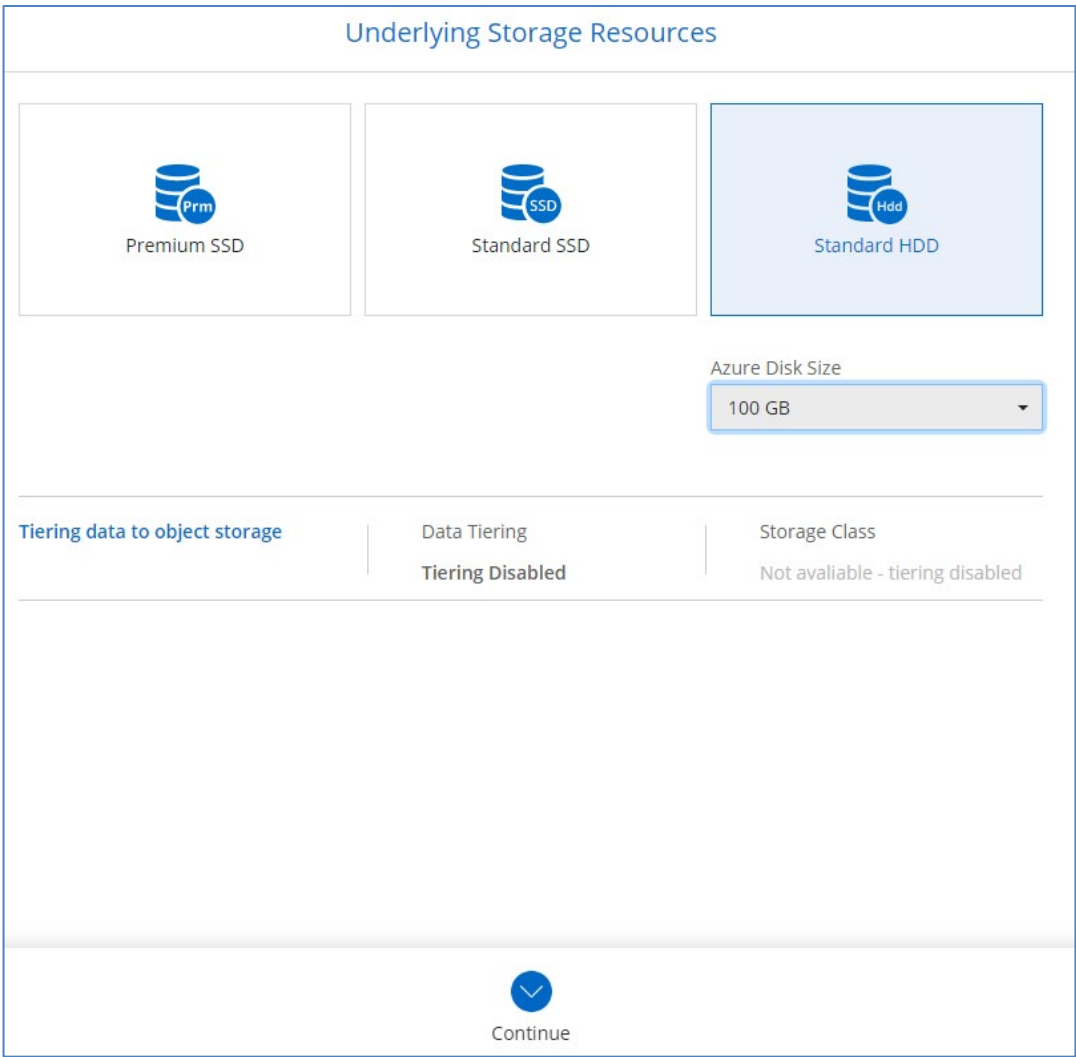
In this task, you deploy Cloud Volumes ONTAP and create a volume with NFS access.

Step	Action
1-1.	Return to Cloud Manager.
1-2.	In the Working Environments page, click Create Cloud Volumes ONTAP .
1-3.	<p>In the Add a Working Environments page, under the Select Provider tab, click the Microsoft Azure icon as well as the Cloud Volumes ONTAP icon.</p> <div></div>

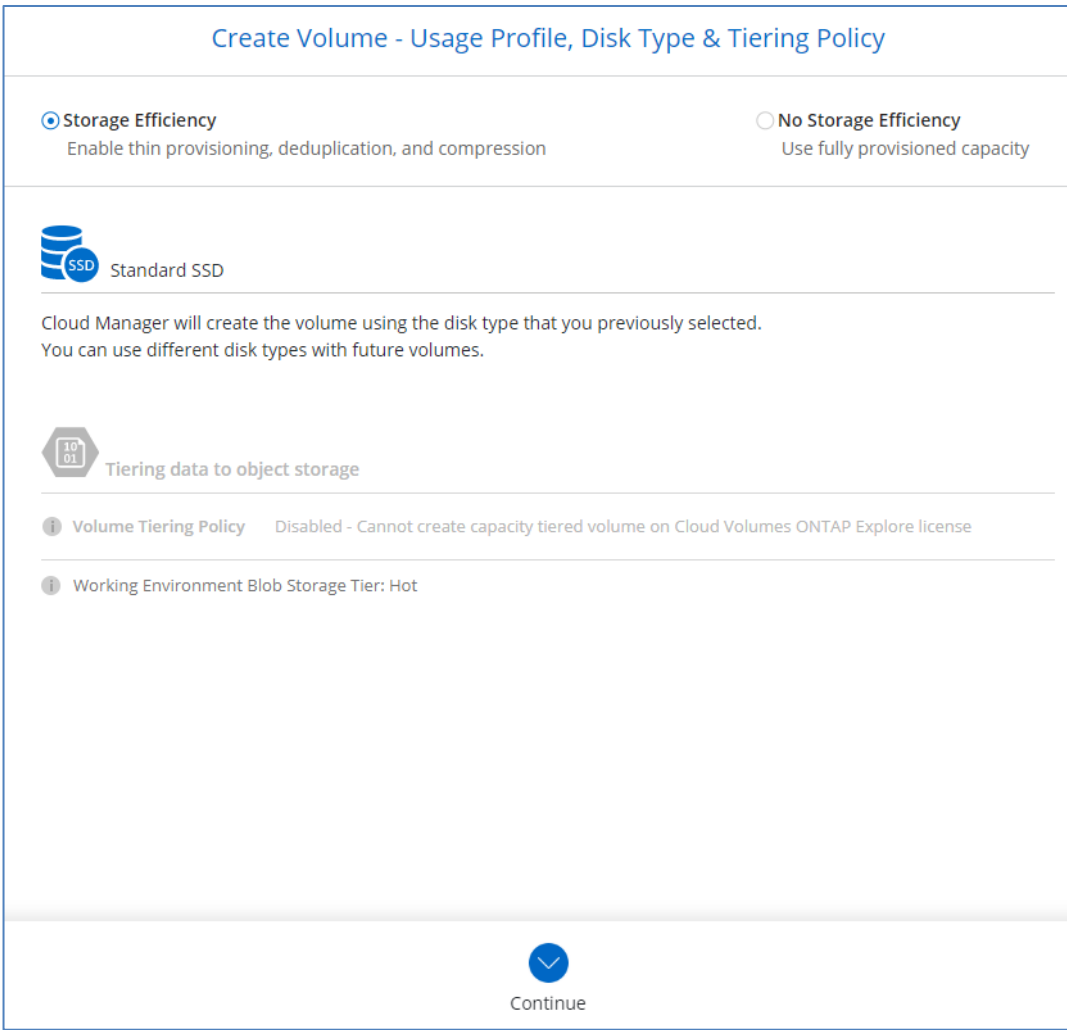

Step	Action
1-4.	<p>Click Continue.</p> 
1-5.	
1-6.	<p>In the Details & Credentials page, do the following:</p> <ol style="list-style-type: none"> Enter the Working Environment Name (Cluster Name) azureCVO. Leave the automatically filled in Resource Group Name as the default. For Password and Confirm Password, enter HappyCloud123. 
1-7.	<p>Click Continue.</p>

Step	Action
1-8.	<p>In the Services page, leave the default for Cloud Compliance set to on.</p>  <p>The screenshot shows the 'Services' page with a toggle for 'Cloud Compliance' set to 'on' (blue). Above the toggle, it says 'All services are enabled by default. Click to deselect.'</p>
1-9.	Click Continue .
1-10.	<p>In the Location page, do the following:</p> <ol style="list-style-type: none"> For the Azure region, select East US. For the VNet, select NetApp-VNet NetApp-RG. For the Subnet, select 10.2.1.0/24 BackEnd. Leave the Security group setting as the default: Use a generated security group. Select the checkbox that is labeled I have verified network connectivity between the Cloud Manager server and the selected VNet.  <p>The screenshot shows the 'Location & Connectivity' page. Under 'Location', 'Azure Region' is set to 'East US', 'VNet' is set to 'NetApp-VNet NetApp-RG', and 'Subnet' is set to '10.2.1.0/24'. Under 'Connectivity', 'Security Group' has 'Generated security group' selected. The checkbox 'I have verified network connectivity between the Cloud Manager server and the selected VNet' is checked. A 'Continue' button is at the bottom.</p>
1-11.	Click Continue .

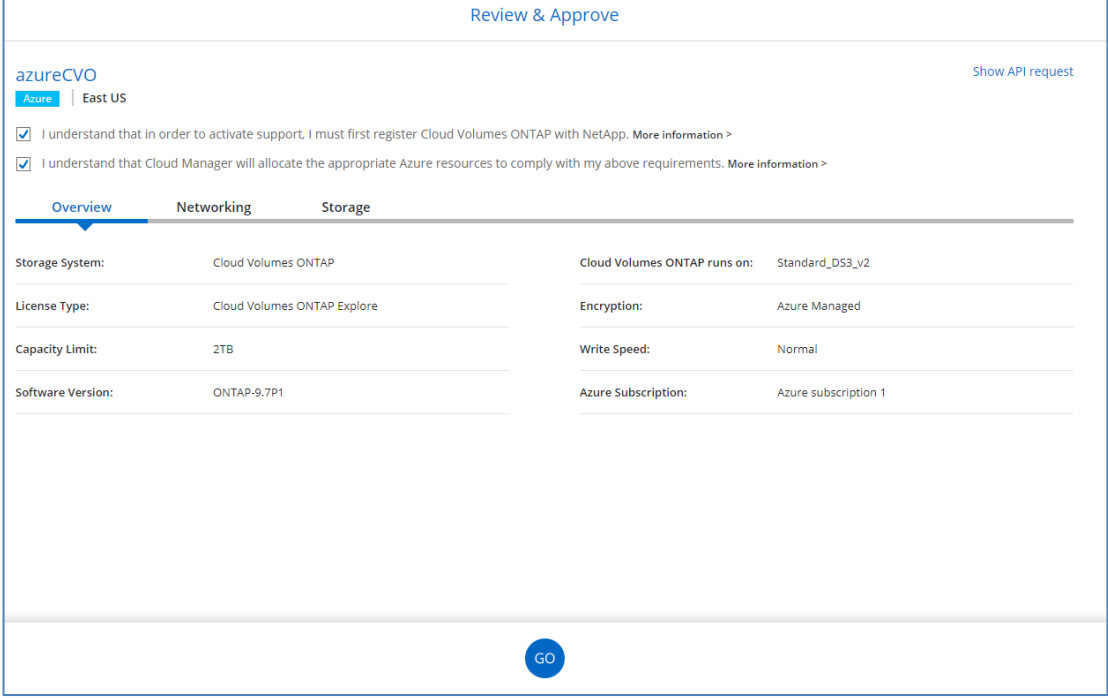
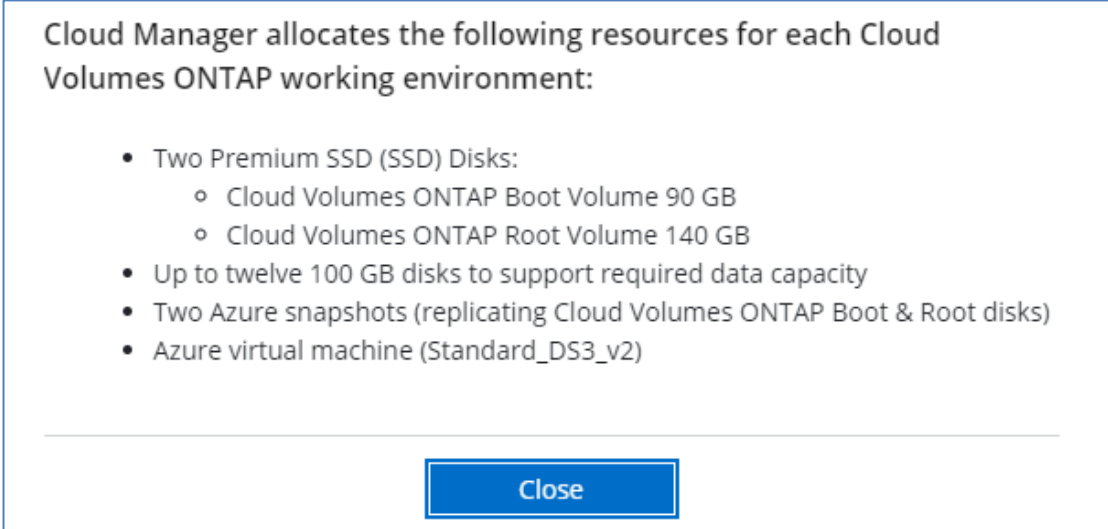

Step	Action
1-12.	<p>In the Cloud Volumes ONTAP License & NetApp Support Site Account, leave Pay-As-You-Go and click Continue.</p> 
1-13.	<p>In the Preconfigured Packages page, click Create my own configuration.</p> 
1-14.	<p>In the Licensing page, do the following:</p> <ol style="list-style-type: none"> For the Software version, select ONTAP-9.7P1 Select ONTAP Cloud Explore. For the VM Type, select Standard_DS3_v2.
1-15.	<p>Click Continue.</p>

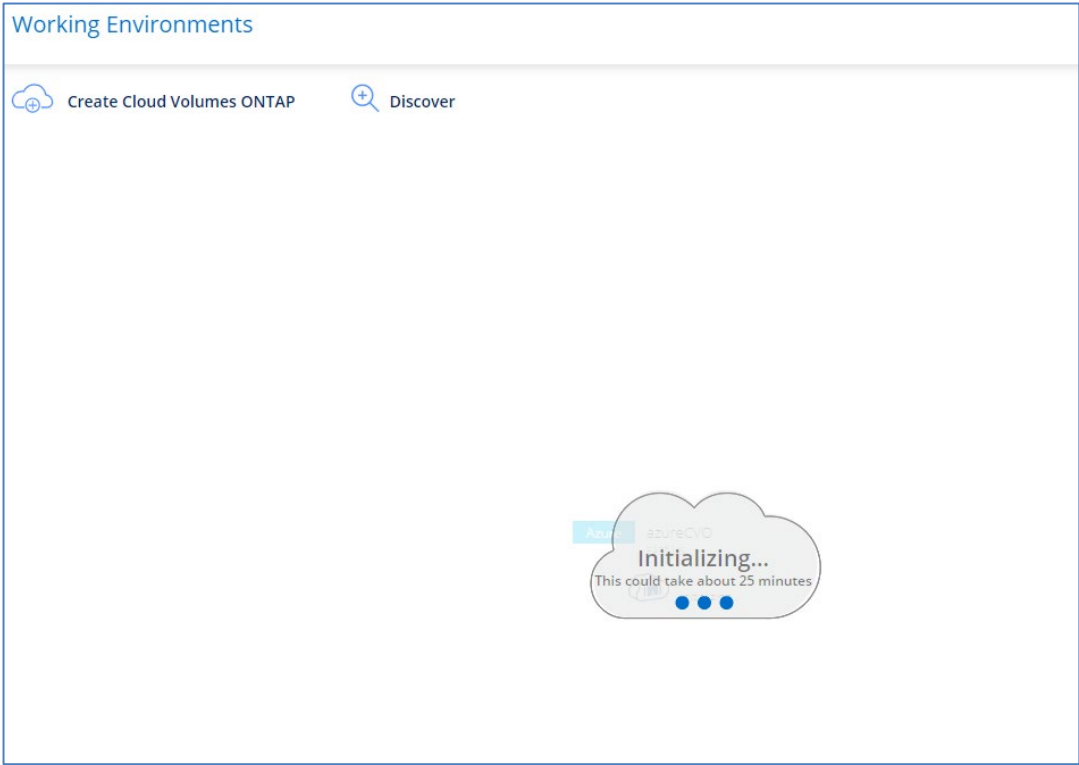
Step	Action
1-16.	<p>In the Underlying Storage Resources page, select Standard Storage, select the Azure Disk Size of 100 GB, and then click Continue.</p> 
1-17.	<p>Leave the Write Speed as Normal, and leave WORM disabled, click Continue.</p>

Step	Action
1-18.	<p>In the Create Volume page, under the Details and Protection section, do the following:</p> <ol style="list-style-type: none"> Enter the Volume name as nfs_vol1. For the Size, enter 10 GB. Leave the Snapshot Policy as default. <p>Protocol section:</p> <ol style="list-style-type: none"> Select NFS Protocol. For the Access Control and Custom export policy, leave the defaults. <div data-bbox="298 493 1393 1003"> </div>
1-19.	<p>Click Continue.</p>

Step	Action
1-20.	<p>In the Create Volume – Usage Profile, Disk Type & Tiering Policy, leave all the values as the defaults, and click Continue.</p>  <p>The screenshot shows a dialog box titled "Create Volume - Usage Profile, Disk Type & Tiering Policy". It has two radio buttons at the top: "Storage Efficiency" (selected) and "No Storage Efficiency". Below "Storage Efficiency" is the text "Enable thin provisioning, deduplication, and compression". Below "No Storage Efficiency" is the text "Use fully provisioned capacity". In the middle, there is a section for "Standard SSD" with a disk icon. Below that, it says "Cloud Manager will create the volume using the disk type that you previously selected. You can use different disk types with future volumes." There is a section for "Tiering data to object storage" which is disabled, with a message "Volume Tiering Policy Disabled - Cannot create capacity tiered volume on Cloud Volumes ONTAP Explore license". At the bottom, there is a "Continue" button with a downward arrow.</p>
1-21.	<p> The Tiering data to object storage is disabled because you are using the ONTAP Cloud Explore license. Tiering is covered in more detail in a later module in this course.</p>
1-22.	<p>In the top right of the Review & Approve page, click Show API Request. Note: You might need to expand your window to see it.</p>

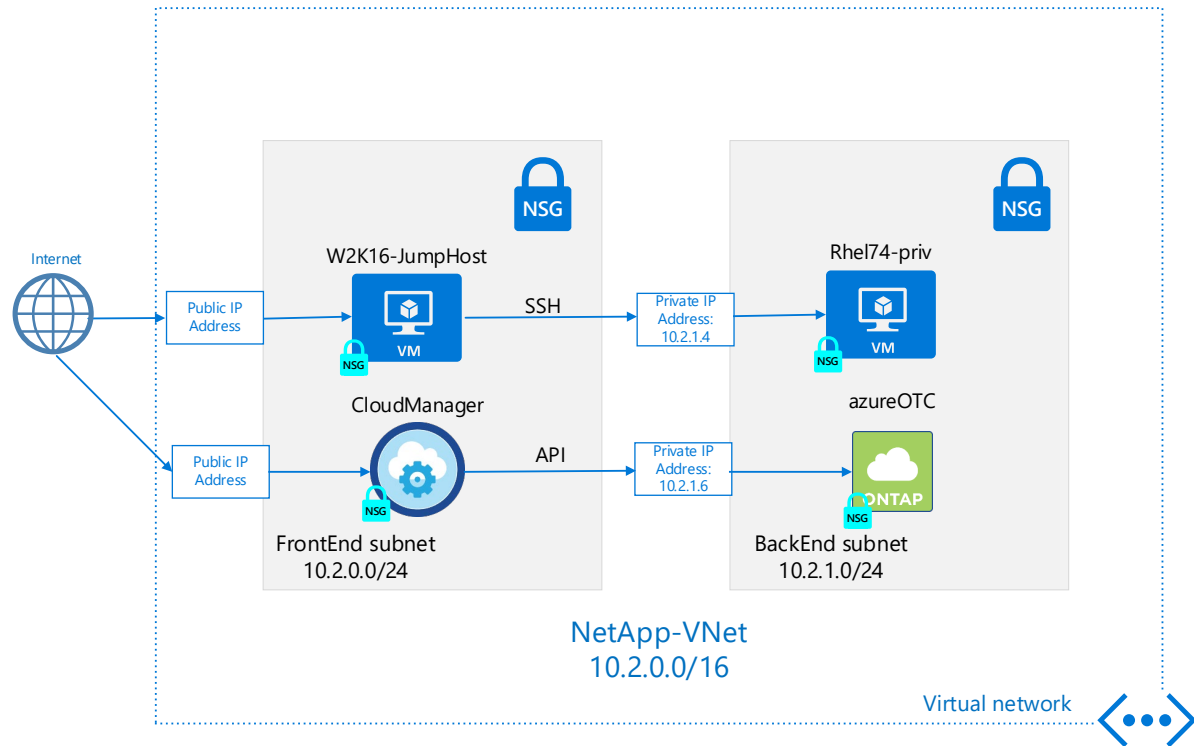
Step	Action
1-23.	<p>Copy and paste the content of the API page to a new file called LaunchOTC.json in the CourseFiles folder on your laptop.</p> <div data-bbox="298 228 1287 936"> <p>API Request</p> <p>POST /occm/api/azure/vsa/working-environments</p> <pre> "ontapEncryptionParameters": null, "securityGroupId": null, "skipSnapshots": false, "diskSize": 1024, "size": 1024, "unit": "GiB", }, "storage": "Azure", "azure": { "resourceGroup": "azureOTC-rg", "subscriptionId": "c15e10e3-888e-45bc-b22e-1af52c627004" } </pre> <p>Close</p> </div>
1-24.	<div data-bbox="298 972 404 1079"> </div> <p>This file will be used in a later exercise, keep it in a safe place.</p>
1-25.	Click Close .

Step	Action
1-26.	<p>On the Review & Approve page, do the following:</p> <ol style="list-style-type: none"> Select the checkbox that is labeled I understand that in order to activate support, I must first register ONTAP Cloud with NetApp. Select the checkbox that is labeled I understand that Cloud Manager will allocate the appropriate Azure resources to comply with my above requirements. Next to the second checkbox, click More information. 
1-27.	<p>View the Azure resources that will be allocated, and click Close.</p> 
1-28.	 <p>What the "Up to twelve 100 GB disks" means is that 12 is the maximum number of LRS disks that you can put into an aggregate. You provision only one originally and add disks as needed when the aggregate is 90% full.</p>

Step	Action
1-29.	On the Review & Approve page, review the Overview, Networking, and Storage tabs, and click GO .
1-30.	<p>Verify that Cloud Volumes ONTAP starts initializing.</p>  <p>The screenshot displays the 'Working Environments' interface. At the top, there are two buttons: 'Create Cloud Volumes ONTAP' (with a cloud icon) and 'Discover' (with a magnifying glass icon). Below these buttons is a large, empty rectangular area. In the bottom right corner of this area, there is a cloud-shaped status indicator. Inside the cloud, it says 'Initializing...' and 'This could take about 25 minutes' with three blue dots below the text, indicating a progress or duration.</p>

Azure Diagram

The figure shows the configuration of the Azure network after you complete Task 2: Deploy Cloud Volumes ONTAP.



End of Exercise