Managing VMware Linked Clones

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About VMware Linked Clones

A linked clone is a copy of a virtual machine that shares virtual disks with the parent virtual machine in an ongoing manner. This conserves disk space, and allows multiple virtual machines to use the same software installation.

A linked clone is made from a snapshot of the parent. All files available on the parent at the moment of the snapshot continue to remain available to the linked clone. Ongoing changes to the virtual disk of the parent do not affect the linked clone, and changes to the disk of the linked clone do not affect the parent. A linked clone must have access to the parent. Without access to the parent, a linked clone is disabled.

For more information on managing VM snapshots, see the Cisco UCS Director Administration Guide and the Cisco UCS Director Self-Service Portal Guide.

The following scenarios apply for linked clone functionality:

• If a VM remains out of all the VMs being deleted from linked clone VMs, then, all the VMs are brought back to the original size of the parent VM.
• If a VM is migrated to some other host and datastore, it will come back to the original size of the parent VM.

Using VMware Linked Clones in Cisco UCS Director

Before You Begin

Before you clone a VM you must note the following:

• During storage policy creation, if you chose to use linked clones (checked the Use Linked Clone check box), the clone will be a linked clone. However, if you did not, the clone will be a full clone.
During resource allocation, only those hosts that have access to the parent's images or the VM's datastores are selected as linked clones.

You must create a new snapshot or use an existing snapshot to create the linked clone.

If you are creating a Standard Catalog item on the VMware vSphere Cloud using the linked clone feature, the selected VM template image must have a snapshot. If it does not have a snapshot, you need to create a new snapshot on the VM before converting it into a VM template image, and perform an inventory to sync Cisco UCS Director with vCenter.

**Procedure**

**Step 1** On the menu bar, choose Virtual > Compute.

**Step 2** Click the VMs tab.

**Step 3** Choose the VM for which you want to use linked clone functionality.

**Step 4** In the VMs pane, click the purple down arrow icon in the top right corner.

**Step 5** Choose Clone.

**Step 6** In the Clone VM screen, complete the following fields:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Group drop-down list</td>
<td>Choose the group where the VM can be deployed.</td>
</tr>
<tr>
<td>Use Linked Clone check box</td>
<td>Check the check box to clone the VM using linked clones.</td>
</tr>
<tr>
<td>Use Linked Clone drop-down list</td>
<td>Choose the snapshot for creating the linked clone. It can be one of the following:</td>
</tr>
<tr>
<td></td>
<td>• Existing Snapshot</td>
</tr>
<tr>
<td></td>
<td>• New Snapshot</td>
</tr>
<tr>
<td>Select Existing Snapshot</td>
<td>Choose the existing snapshot for creating the linked clone.</td>
</tr>
<tr>
<td>Snapshot Name field</td>
<td>The name of the new snapshot.</td>
</tr>
</tbody>
</table>

**Step 7** In the Customization Options screen, complete the following fields:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category drop-down list</td>
<td>Choose the vDC category</td>
</tr>
<tr>
<td>Windows License Pool drop-down list</td>
<td>Choose the Windows license pool.</td>
</tr>
<tr>
<td>Credential Options drop-down list</td>
<td>Choose the credential options. It can be one of the</td>
</tr>
</tbody>
</table>
Check the check box to provision all disks in a single datastore. The scope is the same as the system disk scope.

Provision all disks in single datastore check box

Enable check box

Check the check box if you want to enable post provisioning custom actions.

Enable check box

The VM Application Charge Frequency. It can be one of the following:

• Hourly
• Monthly

VM App Charge Frequency drop-down list

The cost for the Active VM Application.

Active VM Application cost field

The cost for the inactive VM Application.

Inactive VM Application cost field

Step 8  Click Next.

Step 9  In the Deployment Configuration screen, complete the following:

Select VDC drop-down list  Choose the vDC.

Comment field  Any comments for the deployment.

Provision drop-down list  Choose when you want to perform provisioning. It can be one of the following:

• Now
• Later

Lease Time check box  Check the check box if you want lease time.

Step 10  In the Custom Specification screen, complete the following fields:

CPU Cores drop-down list  The number of CPU cores

Memory drop-down list  The memory for the VM.
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<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Disk 1 drop-down list</td>
<td>The memory for the hard disk</td>
</tr>
</tbody>
</table>

Step 11 Click Next.

Step 12 In the Custom Workflow screen, click Next.

Step 13 In the Select Datastores screen, complete the following fields:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VM Disks</td>
<td>Choose the VM disk to assign the datastores.</td>
</tr>
</tbody>
</table>

Step 14 Click Next.

Step 15 In the Select VM Networks screen, complete the following fields:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VM Networks</td>
<td>Choose the VM network.</td>
</tr>
</tbody>
</table>

Step 16 In the Summary screen, review the information and click Submit.