



## Managing VMware Linked Clones

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### About VMware Linked Clones

A linked clone is a copy of a virtual machine that continually shares virtual disks with the parent virtual machine. 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 (by checking the **Use Linked Clone** check box), the clone will be a linked clone. However, if you did not check the box, 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.

**Note**

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.

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**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 down arrow button in the top right corner.
  - Step 5** Choose **Clone**.
  - Step 6** In the **Clone VM** dialog box, complete the fields to create the linked clone from an existing snapshot or a new snapshot.
  - Step 7** In the **Customization Options** screen, complete the fields including the following:
    - a) Check the **Provision all disks in single datastore** check box to provision all disks in a single datastore.
 

**Note** The scope is the same as the system disk scope.
    - b) Choose the VM Application Charge Frequency, which can be hourly or monthly.
  - Step 8** Click **Next**.
  - Step 9** In the **Deployment Configuration** screen, complete the fields to choose where to deploy the VM, to choose to perform provisioning now or later, and to determine how long to keep the deployed VMs running.
  - Step 10** In the **Custom Specification** screen, complete the fields for custom CPU and memory parameters, if applicable.
  - Step 11** Click **Next**.
  - Step 12** In the **Custom Workflow** screen, click **Next**.
  - Step 13** In the **Select Datastores** screen, choose the VM disk to which you want to assign the datastores.
  - Step 14** Click **Next**.
  - Step 15** In the **Select VM Networks** screen, choose the VM network.
  - Step 16** In the **Summary** screen, review the information and click **Submit**.
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# Viewing Linked Clone VMs Reports

## Procedure

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- Step 1** On the menu bar, choose **Virtual > Compute**.
  - Step 2** In the **Compute for All Clouds** pane, choose the VMware cloud.
  - Step 3** Click the **Images** tab.
  - Step 4** Double click on an image.
  - Step 5** Click the **Linked Clone VMs** tab.  
You can view a report of all the linked clone VMs for each snapshot.
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