



Managing the VM Lifecycle

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Managing the VM Lifecycle

You can perform post-provisioning lifecycle management actions on virtual machines (VMs).

These actions are broadly classified into four categories:

- VM power management—Power on, power off, pause, resume, shutdown guest, standby, reset, and reboot a VM.
- VM resizing—Resize a VM and resize a VM disk.
- VM snapshot management—Create a snapshot, revert a snapshot, mark a snapshot as golden, delete a snapshot, and delete all snapshots.
- Other VM actions—Create a VM disk, delete a VM disk, repair a VM, add a vNIC, delete a vNIC, save the state of a VM, discard the saved state of a VM, view the VM details, stack view of a VM, assign a VM, assign VM credentials, launch a VM client, and request for inventory collection.

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- Step 1** On the menu bar, choose **Virtual > Compute**.
- Step 2** Expand **All Clouds** and choose an SCVMM cloud.
- Step 3** Click the **VMs** tab.
- Step 4** To perform an action on a VM, choose a VM and do one of the following:

- Click an action such as assign VM, launch VM client, that appears on top of the VMs table.
- Click the drop-down icon at the top right corner of the VMs table and choose an action.
- Right-click the VM and choose an action from the drop-down menu.

Managing VM Power

You can manage the power functions on VM that includes actions such as power on, power off, suspend power, reset, or reboot the VM.

- Step 1** On the menu bar, choose **Virtual > Compute**.
- Step 2** Expand **All Clouds** and choose an SCVMM cloud.
- Step 3** Click the **VMs** tab.
- Step 4** From the drop-down icon at the top right corner of the VMs table, choose an action. The following actions appear according to the power state of the VM.

Action	Description
Power On	Powers on the VM.
Power Off	Power off the VM.
Suspend	Places the VM in a suspended state.
Shutdown Guest	Shuts down the Guest OS on the VM.
Reset	Performs a hard reset of the VM.

- Step 5** In the **VM Task** dialog box that appears when you choose an action, complete the following fields:

Name	Description
VM Name field	The name of the VM.
Task field	Displays the selected power management task.
Comments field	Enter comments if necessary.

Name	Description
Schedule Action radio button	Click one of the following options: <ul style="list-style-type: none"> • Execute Now—Applies the action on the VM immediately. • Execute Later—Applies the action on the VM at the specified date and time.

Step 6 Click **Proceed**.

Resizing a VM

You can modify the CPU count and memory for a VM, and optionally choose to enable dynamic memory.

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

Step 2 Expand **All Clouds** and choose an SCVMM cloud.

Step 3 Click the **VMs** tab.

Step 4 Choose the VM that you want to resize.

Note The VM must be powered off. If the VM is in the on state, turn off the power of the VM using the **Power Off** action.

Step 5 Click **Resize VM**.

Step 6 In the **Resize VM** dialog box, complete the following fields:

Name	Description
VM Name field	The name of the VM.
Current Allocated CPU field	The current CPU on the VM.
Dynamic Memory field	Displays the enable status of the dynamic memory on the VM.
Current Allocated Memory (GB) field	Displays the current memory on the VM.
New CPU Count drop-down list	Choose the new CPU count.
Enable Dynamic Memory check box	Check the check box if you want to enable dynamic memory.
New Memory drop-down list	This field appears when the Enable Dynamic Memory check box is unchecked. Choose the new memory allocation.

Name	Description
New Startup Memory field	This field appears when the Enable Dynamic Memory check box is checked. The new startup memory allocation.
New Maximum Memory (MB) field	This field appears when the Enable Dynamic Memory check box is checked. The new maximum memory allocation.
New Memory Buffer(%) field	This field appears when the Enable Dynamic Memory check box is checked. The new memory buffer allocation, specified as a percentage. This is the memory Hyper-V attempts to assign to the VM, compared to the amount of memory needed by the applications and services running inside it.

Step 7 Click **Resize**.

Resizing a VM Disk

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

Step 2 Expand **All Clouds** and choose an SCVMM cloud.

Step 3 Click the **VMs** tab.

Step 4 Choose the VM that you want to resize.

Note The VM must be in the power off status. If the VM is in the on status, turn off the power of the VM using the **Power Off** action.

Step 5 From the drop-down icon at the top right corner of the VM's table, choose **VM Disk Resize**.

Step 6 In the **Resize VM Disk** dialog box, complete the following fields:

Name	Description
VM Name field	The name of the VM.
Select Disk drop-down list	Choose the disk to resize.
Total Provisioned (GB) field	The total provisioned disk size in gigabytes.
New Size(GB) field	The new disk size in gigabytes.

Step 7 Click **Resize**.

Managing VM Snapshots

You can do the following VM snapshot actions:

- Create a snapshot
- Revert a snapshot
- Delete a snapshot
- Delete all snapshots
- Mark a snapshot as golden



Note

You can manage the snapshot of the VM that is in the power on state.

For a selected VM on the **VMs** tab, choose the following actions from the drop-down icon that appears at the top right corner of the VMs table (or right-click the VM and choose the action from the drop-down menu):

Name	Description
Create Snapshot	Creates a snapshot with a name and description.
Revert Snapshot	Reverts back to the most recent snapshot of a VM, thereby bringing the VM back on line. If the VM crashes or malfunctions, you can revert back to the most recent snapshot. You can also select a specific snapshot to revert back to, if there is more than one snapshot.
Mark Golden	Marks a snapshot as golden. Marking a snapshot as golden prevents it from being accidentally deleted. The only way to delete a golden snapshot is to unmark the golden snapshot (returning it to a standard snapshot).
Delete Snapshot	Deletes a snapshot.
Delete all Snapshots	Deletes all snapshots for this VM. You can delete all of your snapshots unless a golden snapshot is present. You have to unmark the golden snapshot first before being able to delete all of your snapshots.

Creating a VM Snapshot

You can create a snapshot of a VM at any point in time. You can later choose to revert to this snapshot or delete it.

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- Step 1** On the menu bar, choose **Virtual > Compute**.
- Step 2** Expand **All Clouds** and choose an SCVMM cloud.
- Step 3** Click the **VMs** tab.
- Step 4** From the drop-down icon that appears at the top right corner of the VMs table, choose **Create Snapshot**. Alternately, right-click the VM and choose **Create Snapshot** from the drop-down menu.
- Step 5** In the **Create Virtual Machine Snapshot** dialog box, complete the following fields:

Name	Description
Snapshot Name field	Name for the VM snapshot.
Snapshot Description field	Description of the VM snapshot.

- Step 6** Click **Proceed**.
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Marking a Snapshot as Golden

You can mark a snapshot as golden to prevent it from being accidentally deleted. The only way to delete a golden snapshot is to unmark the golden snapshot (returning it to a standard snapshot).

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- Step 1** On the menu bar, choose **Virtual > Compute**.
- Step 2** Expand **All Clouds** and choose an SCVMM cloud.
- Step 3** Click the **VMs** tab.
- Step 4** From the drop-down icon that appears at the top right corner of the VMs table, choose **Mark Golden Snapshot**.
- Step 5** In the **Mark Golden Snapshot** dialog box, complete the following fields:

Name	Description
Snapshot table	Choose a snapshot from the list of snapshots created for the VM.
Mark As Golden Snapshot check box	Check this check box to designate the snapshot as a golden snapshot.

Step 6 Click **Proceed**.

Managing Other VM Actions

You can perform the following actions on VMs and VM disks:

- Manage VM disks—Create, resize, delete
- Assign a VM
- Resize a VM
- Access VM credentials
- Manage VM state—Save state, discard a saved state
- Manage vNICs—Add, replace, edit, delete
- Request an inventory collection
- Repair a VM after failure
- View—Details or stack view

For a selected VM on the **VMs** tab, choose an action from the drop-down list at the top right corner of the VMs table, or right-click the VM button):

Name	Description
View Details	Displays the VM details.
Assign VM	Assigns a VM to a group or vDC. You can set the provisioning time, termination time, and label for a VM, and modify the VM category, if needed.
Stack View	Displays a bird's eye view of the VM information categorized by OS, VM, Hypervisor, and Infrastructure.
Access VM Credentials	Accesses the VM web or remote desktop login credentials (Windows VMs only). Note This option is only available if the administrator provides the privilege in the catalog for this VM.
Resize VM	Resizes a VM. You can modify the CPU count, memory, and enable dynamic memory.
Inventory Collection Request	Requests an on-demand inventory collection for a selected VM. You can set the maximum time to wait for the inventory collection.
Save State	Saves the state of the VM.

Name	Description
Discard saved state	Discards a saved state of the VM.
Add vNIC	Adds (or replaces) vNICs to the VM.
Delete vNIC	Deletes a vNIC that you have added to the VM.
VM Disk Resize	Resizes a VM disk. You can specify a new size for a VM disk.
Delete VM Disk	Deletes a selected VM disk.
Create VM Disk	Creates a new VM disk.
Repair VM Disk	Repairs a selected VM disk. This button is available for a failed VM.

Assigning a VM

You can assign a VM to a group or vDC, and modify the VM category if needed. The provisioning time, termination time, and VM label can also be assigned.

- Step 1** On the menu bar, choose **Virtual > Compute**.
- Step 2** Expand **All Clouds** and choose an SCVMM cloud.
- Step 3** Click the **VMs** tab.
- Step 4** Click **Assign VM**.
- Step 5** In the **Assign VM** dialog box, complete the following fields:

Name	Description
VM Name field	The name of the VM (non-editable).
User Group field	Choose the user group. Note Only the groups with valid vDC can be selected.
Assign to Users check box	Check this check box to assign the VM to a user.
User drop-down list	This field appears when you check the Assign to Users check box. Choose a user from the list of users in selected group. Note The user list appears only when the group allows resource assignment for users.
vDC drop-down list	Choose a virtual data center (vDC).
Category drop-down list	Choose a category of the VM.

Name	Description
VM User Label field	VM user label, if necessary.
Set Provision Time check box	Check this check box if you want to set the provisioning time. If checked, continue to Step 6.
Provision Date/Time field	Set the date and time to provision the VM.
Comments field	Enter the comments.

Step 6 Click **Assign**.

Creating a VM Disk

You can create a new VM disk for a selected VM. The disk can be either new, or created from an existing hard disk in the library.

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

Step 2 Expand **All Clouds** and choose an SCVMM cloud.

Step 3 Click the **VMs** tab.

Step 4 Click the drop-down icon at the top right corner of the VMs table and choose **Create VM Disk**.

Step 5 In the **Create VM Disk** dialog box, complete the following fields:

Name	Description
VM Name field	The name of the VM (non-editable).
Enter Disk Name field	The name of the disk.
Disk drop-down list	Choose to create a new virtual hard disk or create from an existing one.
Select SCSI Controller drop-down list	Choose a channel and logical unit number (LUN) to which you want to add the disk.
Choose Hard Disk field	This field appears when you choose to use an existing virtual hard disk. Choose a hard disk from which you want to create a VM disk.
Select disk typedrop-down list	This field appears when you choose to create a new virtual hard disk. Choose Dynamic or Fixed as the disk type.
Disk Size (GB) field	The size of disk in gigabytes.

Step 6 Click **Create**.

Cloning a VM

Cloning a VM makes a copy of an existing VM in order to make a new VM with similar qualities. Cloning can save you time by keeping the parameters that you want from the VM you are cloning from while making adjustments needed for the new VM. The new name given to the clone is defined in the system policy.

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

Step 2 Expand **All Clouds** and choose an SCVMM cloud.

Step 3 Click the **VMs** tab.

Step 4 Click the drop-down icon at the top right corner of the VMs table and choose **Clone**.

Step 5 In the **Clone VM** dialog box, select the group on which you want the VM deployed from the **Select Groups** field.

Step 6 Click **Next**.

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

Name	Description
Category field	Click Select to view a list of VDC categories. Select a category and click Select .
Post Provisioning Customs Actions check box	Click Enable to attach a workflow. The Workflow drop-down list appears with a list of work flows to choose from. The chosen workflow initiates when the provisioning starts.
VM App Charge Frequency drop-down list	Choose Hourly or Monthly .
Active VM Application Cost field	The cost for the application that is included in the template.
Inactive VM Application Cost field	The cost to this catalog of a VM in inactive state per hour or month.

Step 8 Click **Next**.

Step 9 In the **Deployment Configuration** pane, complete the following fields:

Name	Description
Select VDC drop-down list	Choose a VDC containing the policies you want for the VM.
VM Name or VM Prefix field	The VM name or prefix.

Name	Description
Comment field	Optionally, enter a description of the VDC.
Provision drop-down list	Choose Now to provision the VDC now or choose Later to provision the VDC later. If you choose Later , then fields to specify the date and time appear.
Lease Time check box	Check the check box to configure a lease expiration time.

Step 10 Click **Next**.

Step 11 In the **Custom Specification** pane, complete the following fields:

Name	Description
CPU Cores drop-down list	Choose the CPU cores for the VM being provisioned.
Enable Dynamic Memory check box	Check to provision the VM with dynamically allocated memory. You can specify custom memory parameters in the Startup Memory , Maximum Memory , and Memory Buffer drop-down lists.
Memory drop-down list	Choose the amount of memory for the VM being provisioned.

Step 12 Click **Next**.

Step 13 In the **Custom Workflow** pane, if applicable, complete the required fields.

Note Custom workflow inputs apply if the catalog chosen for VM provisioning has Post Provisioning Custom Actions enabled.

Step 14 Click **Next**.

Step 15 In the **Select VM Networks** pane, if applicable, click the **VM Networks** pencil icon to edit a VM network.

Note The **Select VM Networks** pane is empty unless the **Allow end user to select optional NICs** check box is chosen in the network policy.

Step 16 In the **Select** dialog box, choose one or more clouds that you want associated with the VM.

Step 17 Click **Submit**.

Step 18 If you checked the **Perform deployment assessment** check box, then review the report of the assessment displayed in the **Deployment Assessment** pane.

If this assessment report identifies errors, then you must return to the previous panes and rectify the errors before submitting the request. If the assessment report shows no errors, then click **Next**.

Step 19 In the **Select Datastores** pane, if applicable, click **Select** in the **Select Datastore** field to select one or more datastores to associate with the VM.

Note This option is only available if **Allow user to select datastore from scope** is checked in the storage policy. The datastore choices that are available depend upon the storage policy that is associated to the VM's VDC.

- Step 20** Click **Next**.
- Step 21** Review the cloned VM information in the **Summary** panel.
- Step 22** Click **Submit**.
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Managing vNICs

You can add a vNIC to a VM, as well as edit, replace, and delete a vNIC. The available options for a vNIC are determined by the network policy mapped to the vDC that is associated with the VM.



Note The VM must be powered off to perform vNIC actions. If the VM is in the on state, turn off the power of the VM using the **Power Off** action.

Before You Begin

Ensure that a network policy is assigned to the VM network. Turn off the power on the VM.

- Step 1** On the menu bar, choose **Virtual > Compute**.
- Step 2** Expand **All Clouds** and choose an SCVMM cloud.
- Step 3** Click the **VMs** tab.
- Step 4** Choose a VM that need to be configured with vNICs.
- Step 5** Click the drop-down icon at the top right corner of the VMs table and choose **Add vNICs** from the drop-down list.
- Step 6** In the **Add VM vNICs** dialog box, complete the following fields:

Name	Description
Operation drop-down list	Choose Add or Replace. Note You cannot add a vNIC if you exceed the vNIC limit configured in the network policy for VMs in the vDC.
VM Networks table	Click the icon to add, edit, or delete a vNIC. Note You can only edit or delete a vNIC in the list. You cannot edit or delete pre-existing vNICs in the VM.

- Step 7** In the **Add Entry to VM Networks** dialog box, check or uncheck the **Use DHCP** checkbox.
Note An error message appears if there is no network policy assigned to the VM network.
- Step 8** Click **Close**.
- Step 9** Click **Submit**.
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Adding a VM NIC

Before You Begin

Ensure that the VM is powered off to perform VM NICs actions. If the VM is in the on state, turn off the power of the VM using the **Power Off** action.

- Step 1** On the menu bar, choose **Virtual > Compute**.
- Step 2** Expand **All Clouds** and choose an SCVMM cloud.
- Step 3** Click the **VMs** tab.
- Step 4** Choose the VM to which you want to add a VM NIC.
- Step 5** Click the drop-down icon at the top right corner of the VMs table and choose **Add NIC** from the drop-down list.
- Step 6** In the **Add VM NIC** dialog box, complete the following fields:

Name	Description
Adapter Type drop-down list	Choose Synthetic or Emulated. The network adapters are used to connect the virtual machines to internal networks, or to external networks after the virtual machines are deployed on a host. Synthetic network adapters provide better performance than emulated network adapters. Emulated network adapters are available on all virtualization software platforms and allow virtual machines to be connected to virtual networks.
VM Network table	Network to which you are adding the VM NIC.
Subnet field	Subnet to which you are adding the VM NIC.
Use DHCP check box	By default, DHCP is enabled. Uncheck to disable DHCP.
Port Classification field	Provides global names used to identify different types of virtual network adapter port profiles. The port classification settings remain specific to each logical switch, even if they can be used across multiple logical switches.

- Step 7** Click **Submit**.
- Step 8** Click **OK**.

Editing a VM NIC

Before You Begin

Ensure that the VM is powered off to perform VM NICs actions. If the VM is in the on state, turn off the power of the VM using the **Power Off** action.

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- Step 1** On the menu bar, choose **Virtual > Compute**.
 - Step 2** Expand **All Clouds** and choose an SCVMM cloud.
 - Step 3** Click the **VMs** tab.
 - Step 4** Choose the VM you want to configure.
 - Step 5** Click the drop-down icon at the top right corner of the VMs table and choose **Edit NIC** from the drop-down list.
 - Step 6** In the **Edit VM NIC** dialog box, make the necessary changes.
 - Step 7** Click **Submit**.
 - Step 8** Click **OK**.
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