

Lifecycle Manager User's Guide

vCenter Lifecycle Manager 1.0.2

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About This Book

This book, the *Lifecycle Manager User's Guide*, describes the tasks that users can perform using VMware® vCenter™ Lifecycle Manager (LCM). LCM allows you to request, approve, deploy, operate, and decommission a virtual machine.

Intended Audience

This book is intended for all LCM users that are using LCM to request, approve, deploy, operate, and decommission a virtual machine. LCM users are assigned specific roles that determine the tasks that they can perform. Depending on your assigned role, you might be able to perform all or some of the tasks described in this guide.

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Overview of Lifecycle Manager

VMware vCenter Lifecycle Manager (LCM) automates the process of creating virtual machines and removing them from service at the appropriate time. The tasks that you can perform depends on the role that the LCM Administrator has assigned to you. This guide describes the tasks that each role can perform. For information about the tasks that the LCM Administrator can perform, see the *Lifecycle Manager Administration Guide*.

This chapter includes the following topics:

- [“Lifecycle Process”](#) on page 7
- [“Lifecycle Manager Terminology”](#) on page 7
- [“Lifecycle Manager Roles”](#) on page 8
- [“System Requirements”](#) on page 9
- [“Log In to LCM”](#) on page 9

Lifecycle Process

The way that LCM handles requests to create virtual machines depends on how the LCM Administrator has configured the approval process. If approval is required, an email notification is sent to the LCM Approver user. If approval is not required, and there is no conflict with the request, the virtual machine is created. If there is a conflict, an LCM IT Staff user receives an email notification that a virtual machine is waiting to be created.

After a virtual machine has been created, it can be used until the decommissioning date. Five days before the decommissioning date, an email notice is sent to the user who requested the virtual machine if email notifications are enabled. The user can do one of the following:

- Request to extend the life of the machine.
 - If the extension is not approved, the virtual machine is decommissioned and is archived or deleted. The LCM Administrator determines whether decommissioned virtual machines are archived.
- Manually decommission the virtual machine.

Lifecycle Manager Terminology

LCM uses specific terminology to describe lifecycle events and attributes.

Table 1-1. Terminology

Term	Definition
Commission	Date and time to create a requested virtual machine. The commission time is submitted during the request process.
Decommission	The requested machine reaches its end of life. A decommission date is submitted during the request process. The decommissioned machine can be archived or deleted.

Table 1-1. Terminology (Continued)

Term	Definition
Extension	Extending the life of a virtual machine that is to be decommissioned. If approval is required, the request for extension must be approved before the owner of the virtual machine can continue to use it.
Infrastructure	Attributes such as the network, domain, and datastore affect where the requested virtual machine is placed in VMware Infrastructure.
Criteria	Attributes attached to a requested virtual machine that are selected during the request process, such as location, organization, server environment, service level, and performance. The LCM Administrator maps this information to the infrastructure.
Template Profile	The profile that is used when a requested virtual machine is cloned.
Customization Template	The template that determines the resources that the requested virtual machine uses, such as memory reservation, memory limit, CPU shares, and disk shares. Only the LCM IT Staff, LCM Tech Requester, and LCM Administrator can modify the customization template.
Placing	The requested virtual machine is created or moved into the infrastructure, based on the selected criteria and infrastructure.

Lifecycle Manager Roles

The tasks that you can perform depend on the role that you have been assigned by the LCM Administrator. LCM users who are not LCM Administrators have one or more of the following roles:

- LCM Requester
- LCM Tech Requester
- LCM Approver
- LCM IT Staff

LCM Requester Role

The LCM Requester user can perform the following when requesting virtual machines:

- Set the criteria.
- Select a template profile.
- Set the commissioning and decommissioning dates.
- Specify who can control and view virtual machines.
- Display a list of the virtual machines that the LCM Requester has created.
- Request an extension to the life of a virtual machine.
- Manually decommission a virtual machine.

LCM Tech Requester Role

An LCM Technical Requester user is an advanced LCM Requester. In addition to the tasks that an LCM Requester can perform, an LCM Tech Requester can customize the settings for the CPU, memory, and shares for the virtual machine.

LCM Approver Role

An LCM Approver user can do the following:

- Request a virtual machine.
- Receive email notifications for new virtual machine requests if the LCM Administrator has enabled notification mode.

- Receive requests for new virtual machines. Each request is presented with the fixed cost of the virtual machine, so the LCM Approver can determine the cost per day of using the virtual machine.
- Receive requests to extend the life of an existing virtual machine.
- Approve or reject requests.
- Generate reports.
- Review the catalog of requested virtual machines.

LCM IT Staff Role

An LCM IT Staff user is notified by email about new requests if email notifications are enabled. If the choice of criteria for a request is not resolved, the LCM IT Staff user can provide the missing placement or configuration information to complete the request.

An LCM IT Staff user can do the following:

- Manually place approved virtual machines.
- Modify virtual machine name.
- Approve or reject customization templates.
- Generate reports.
- Retry a request.
- Validate a request after manual intervention.

System Requirements

You must use one of the following browsers to connect to LCM:

- Microsoft Internet Explorer 7
- Mozilla Firefox 3.0.x (where x is 8 or later)

To connect to a virtual machine using a remote desktop application, you must have Remote Desktop Protocol (RDP) client software installed on your workstation.

To connect to a virtual machine through your browser, you must use the VMware WebCenter Remote MKS Plug-in, which is compatible with the following browsers and operating systems:

- Microsoft Internet Explorer 7 on Windows XP or Windows Server 2003
- Mozilla Firefox 3 on Windows XP, Windows Server 2003, or Linux

Log In to LCM

You use a Web browser to connect to LCM.

To log in to LCM

- 1 In your Web browser, type the URL provided by your LCM Administrator.
The default is `http://<server_name>:8280/vmo/lifecycle/default.html`.
- 2 Type the user name and password provided by your LCM Administrator.
The user interface options shown depends on the LCM role that you have been assigned.

LCM Requester and LCM Tech Requester Tasks

2

This chapter describes the tasks that you can perform if you are an LCM Requester or LCM Tech Requester. This chapter includes the following topics:

- [“Request a Virtual Machine”](#) on page 11
- [“Display Requested Virtual Machines”](#) on page 13
- [“Check the Power State of a Virtual Machine”](#) on page 14
- [“Power a Virtual Machine On and Off”](#) on page 14
- [“Connecting to a Virtual Machine”](#) on page 14
- [“Create or Revert to a Snapshot”](#) on page 15
- [“Request to Extend the Life of a Virtual Machine”](#) on page 15
- [“Decommission a Virtual Machine Immediately”](#) on page 16
- [“Request to Change the Virtual Machine Customization Attributes”](#) on page 16

Request a Virtual Machine

To commission a virtual machine, you must submit a request. You can request a specific start date or accept the first available date.

To request a virtual machine

- 1 Log in to LCM and click the **Requests** view.
- 2 Click **Request**.
- 3 (Optional) To specify a commissioning date, select **Yes** for **Set commissioning date?** and select a date.
If you do not specify a commissioning date, the virtual machine is created at the first available opportunity after approval.
- 4 (Optional) To specify a decommissioning date, select **Yes** for **Set decommissioning date?** and select a date.
If you do not specify a decommissioning date, the virtual machine remains in service until it is decommissioned manually.
- 5 (Optional) Specify who can control the virtual machine request.
If you do not specify a user or group, only you and the LCM Administrator have control.
 - a From the **Virtual machine control by** drop-down menu, select **Group** or **User**.
 - b Type the name of the user or group, or search for a list of available group or user names and descriptions.
 - c Type the email address for the user or group if email notifications are enabled.

- 6 (Optional) Specify who can connect to and view the virtual machine when it is running.
If you do not specify a user or group, only you and the LCM Administrator can view the virtual machine.
 - a From the **Virtual machine view by** drop-down menu, select **Group** or **User**.
 - b Type the name of the user or group, or search for a list of available group or user names and descriptions.
 - c Type the email address for the user or group if email notifications are enabled.
- 7 Click **Next**.
- 8 Select settings for the **Location, Organization, Server Environment, Service Level, and Performance** options.
The available settings for these options are specified by the LCM Administrator.
- 9 Type the requester email and click **Next**.
- 10 Select the **Server type**.
- 11 (Optional) To start the virtual machine as soon as it is provisioned, select **Yes** for **Start virtual machine**.
If you are an LCM Tech Requester, you can modify the virtual machine template when you request the virtual machine. The options available are determined by the LCM Administrator. The modifications affect only the virtual machine that you are requesting at the time.
(Optional) To modify a customization template:
 - a Select the **Customization template**.
 - b Select **Yes** for **Would you like to customize the attributes of this template?** and change the attribute values as needed. For the attribute values, see [Table 2-1, "Customization Template Attributes"](#).
- 12 Click **Next**.
- 13 Type comments about the virtual machine, which are viewed in the approval process.
- 14 Click **Submit**.

The virtual machine is deleted on the decommissioning date. You cannot get it back, unless the LCM Administrator has configured LCM to archive the virtual machine. If virtual machines are archived, contact your LCM Administrator to retrieve it.

Table 2-1. Customization Template Attributes

Attribute	Values
Memory reservation (MB)	minimum is 0 (default is 256)
Memory limit/size (MB)	range is -1 to 1024; must be a multiple of 4 (default is 1024) Selecting -1 maintains the same memory as the vCenter template.
Memory share	low, normal, or high (default is normal)
CPU reservation (MHz)	minimum is 0 (default is 200)
CPU limit (MHz)	minimum is -1 (default is 2000) Selecting -1 maintains the same CPU number as the vCenter template.
CPU count	1, 2, or 4 (default is 1)
CPU shares	low, normal, or high (default is normal)
Disk shares	low, normal, or high (default is normal)

For additional information on virtual machine resource allocation, see the VMware Infrastructure 3 *Resource Management Guide*.

Display Requested Virtual Machines

You can use filters to view the status of virtual machines that you have requested.

In the **Catalog** view, you can use the following filters to view only virtual machines that meet the criteria.

Table 2-2. Catalog View Filters

Filter	Description
All	Displays the virtual machines that you requested.
Creating	Displays the virtual machines that you requested that are being created.
Available VM	Displays the available virtual machines that you created.
Rejected	Displays the virtual machines that you requested that were rejected.
Decommissioned	Displays the virtual machines that you created that have been decommissioned.
Canceled	Displays the virtual machines that you created and then canceled.
Errors	Displays the virtual machines that you created that have errors.
Waiting For Approval	Displays the virtual machines that you requested that are waiting for approval.
Waiting For Placement	Displays the virtual machines that you requested that are waiting to be correctly placed.
End Of Life	Displays the requested virtual machines that you requested that are decommissioned, archived, rejected, or canceled.
All Except End Of Life	Displays the requested virtual machines that you requested that are not decommissioned, archived, rejected, or canceled.

In the **Requests** view, you can use the following filters to view only virtual machines that meet the criteria.

Table 2-3. Request View Filters

Filter	Description
All Requests	Displays the virtual machines that you requested.
Waiting For Creation	Displays the virtual machines that you requested that are waiting to be created.
Waiting For Approval	Displays the virtual machines that you requested that are waiting for approval.
Waiting For Placement	Displays the virtual machines that you requested that are waiting to be correctly placed.
Creating	Displays the virtual machines that you requested that are being created.
End Of Life	Displays the requested virtual machines that you requested that are decommissioned, archived, rejected, or canceled.
All Except End Of Life	Displays the requested virtual machines that you requested that are not decommissioned, archived, rejected, or canceled.

To display information about requested machines

- 1 Log in to LCM.
- 2 Click **Catalog** or **Requests**.
- 3 Select a filter.
- 4 Click a virtual machine request in the left pane to see a summary of the configuration and status information.

Check the Power State of a Virtual Machine

You can check whether a virtual machine is powered on or off or suspended.

To check the power state of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog**.

The icon to the left of the virtual machine indicates its power state.

- A green triangle indicates that the virtual machine is powered on.
- A red square indicates that the virtual machine is powered off.
- Two parallel yellow bars indicate that the virtual machine is suspended.

Power a Virtual Machine On and Off

Power commands are available to the users and groups who were given control when the virtual machine was requested. The LCM Administrator also has rights to control any virtual machine.

To power a virtual machine on or off

- 1 Log in to LCM.
- 2 Click **Catalog** to view a list of the virtual machines.
- 3 Click a virtual machine name in the catalog list.
- 4 In the right pane, click **Commands**.
- 5 Click **Power on** or **Shut down**.

To suspend a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** to view a list of the virtual machines.
- 3 Click a virtual machine name in the catalog list.
- 4 In the right pane, click **Commands**.
- 5 Click **Suspend**.

Connecting to a Virtual Machine

You can connect to a virtual machine from your Web browser or using an RDP client application.

Only users and groups who were given control when the virtual machine was requested can connect to the virtual machine. The LCM Administrator also has rights to connect to the virtual machine.

Open a Virtual Machine in a Web Browser

From your Web browser, you can connect to a virtual machine running any guest operating system. To connect via your browser, you must have the VMware WebCenter Remote MKS Plug-in installed in your browser.

To open a virtual machine in a Web browser

- 1 Log in to LCM.
- 2 Click **Catalog** and click the virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Open console**.

The virtual machine's desktop appears in a new browser window.

Use Remote Desktop to Connect to a Virtual Machine

You can open a Windows virtual machine using an RDP client application. The client software must be installed on your computer.

To open a virtual machine in a remote desktop

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Connect**.

Your RDP application opens and the virtual machine's desktop appears in the RDP client.

Create or Revert to a Snapshot

A snapshot captures the states of a virtual machine's hard drives. You can use the snapshot to return to the saved state. A snapshot does not capture the virtual machine's memory and power state.

Snapshot commands are available to the users and groups who were given control when the virtual machine was requested. The LCM Administrator can also use snapshots. You can access only one snapshot at a time. If you need to revert to a snapshot earlier than the most recent one, contact your LCM Administrator.

To create a snapshot of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Snapshot**.

To revert to a snapshot

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Revert to snapshot**.

The virtual machine returns to the state it was in when the snapshot was taken.

Request to Extend the Life of a Virtual Machine

If you want to continue using a virtual machine beyond its scheduled decommissioning date, you can request an extension. An LCM Approver must approve the extension request if the LCM Administrator has configured LCM to require an approval.

To request to extend the life of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 Near the top of the right pane, click **Extension**.
- 4 In the **Extend Until** field, select the date for the virtual machine to be decommissioned.
- 5 In the **Comment** text box, type the reason for your request.
- 6 In the **Requester E-mail Address** text box, type your email address.
- 7 Click **Submit**.

Decommission a Virtual Machine Immediately

You can decommission a virtual machine before its scheduled date or if a virtual machine has no scheduled decommissioning date.

To decommission a virtual machine immediately

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 Near the top of the right pane, click **Decommission**.
- 4 In the **Comment** text box, type the reason why you want to decommission the virtual machine.
- 5 Click **Submit**.

Request to Change the Virtual Machine Customization Attributes

If you are an LCM Tech Requester, you can request to change the customization template attributes for a virtual machine that has been placed.

To request to change the virtual machine customization attributes

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 Near the top of the right pane, click **Change Request**.
- 4 In the **Comment** text box, type the reason for your request.
- 5 In the **Contact E-mail Address** text box, type your email address.
- 6 Click **Next**.
- 7 Type a customization name.
- 8 Change the attribute values as needed. For the attribute values, see [Table 2-1, "Customization Template Attributes,"](#) on page 12.
- 9 Click **Submit**.

LCM Approver Tasks

This chapter describes the tasks that you can perform if you have the LCM Approver role. This chapter includes the following topics:

- [“Request a Virtual Machine”](#) on page 17
- [“Display Requested Virtual Machines”](#) on page 18
- [“Check the Power State of a Virtual Machine”](#) on page 19
- [“Power a Virtual Machine On and Off”](#) on page 19
- [“Connecting to a Virtual Machine”](#) on page 20
- [“Create or Revert to a Snapshot”](#) on page 20
- [“Request to Extend the Life of a Virtual Machine”](#) on page 21
- [“Decommission a Virtual Machine Immediately”](#) on page 21
- [“Review Requests for Approval”](#) on page 21
- [“Approve or Reject Requested Virtual Machines”](#) on page 22
- [“Approve or Reject Requests to Extend the Life of a Virtual Machine”](#) on page 22
- [“Approve or Reject Requests for Customization Changes”](#) on page 22
- [“Generate Reports”](#) on page 23

Request a Virtual Machine

To commission a virtual machine, you must submit a request. You can request a specific start date or accept the first available date.

To request a virtual machine

- 1 Log in to LCM and click the **Requests** view.
- 2 Click **Request**.
- 3 (Optional) To specify a commissioning date, select **Yes** for **Set commissioning date?** and select a date.
If you do not specify a commissioning date, the virtual machine is created at the first available opportunity after approval.
- 4 (Optional) To specify a decommissioning date, select **Yes** for **Set decommissioning date?** and select a date.
If you do not specify a decommissioning date, the virtual machine remains in service until it is decommissioned manually.
- 5 (Optional) Specify who can control the virtual machine request.

- If you do not specify a user or group, only you and the LCM Administrator have control.
- a From the **Virtual machine control by** drop-down menu, select **Group** or **User**.
 - b Type the name of the user or group, or search for a list of available group or user names and descriptions.
 - c Type the email address for the user or group if email notifications are enabled.
- 6 (Optional) Specify who can connect to and view the virtual machine when it is running.
- If you do not specify a user or group, only you and the LCM Administrator can view the virtual machine.
- a From the **Virtual machine view by** drop-down menu, select **Group** or **User**.
 - b Type the name of the user or group, or search for a list of available group or user names and descriptions.
 - c Type the email address for the user or group if email notifications are enabled.
- 7 Click **Next**.
- 8 Select settings for the **Location**, **Organization**, **Server Environment**, **Service Level**, and **Performance** options. The available settings for these options are specified by the LCM Administrator.
- 9 Type the requester email and click **Next**.
- 10 Select the **Server type**.
- 11 (Optional) To start the virtual machine as soon as it is provisioned, select **Yes** for **Start virtual machine**.
- 12 Click **Next**.
- 13 Type comments about the virtual machine, which are viewed in the approval process.
- 14 Click **Submit**.

You can view a summary of the virtual machine configuration and status by clicking the request entry.

The virtual machine is deleted on the decommissioning date. You cannot get it back, unless the LCM Administrator has configured LCM to archive the virtual machine. If virtual machines are archived, contact your LCM Administrator to retrieve it.

Display Requested Virtual Machines

You can use filters to view the status of virtual machines that you have requested.

In the **Catalog** view, you can use the following filters to view only virtual machines that meet the criteria.

Table 3-1. Catalog View Filters

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To display information about requested machines

- 1 Log in to LCM.
- 2 Click **Catalog** or **Requests**.
- 3 Select a filter.
- 4 Click a virtual machine request in the left pane to see a summary of the configuration and status information.

Check the Power State of a Virtual Machine

You can check whether a virtual machine is powered on or off or suspended.

To check the power state of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog**.

The icon to the left of the virtual machine indicates its power state.

- A green triangle indicates that the virtual machine is powered on.
- A red square indicates that the virtual machine is powered off.
- Two parallel yellow bars indicate that the virtual machine is suspended.

Power a Virtual Machine On and Off

Power commands are available to the users and groups who were given control when the virtual machine was requested. The LCM Administrator also has rights to control any virtual machine.

To power a virtual machine on or off

- 1 Log in to LCM.
- 2 Click **Catalog** to view a list of the virtual machines.
- 3 Click a virtual machine name in the catalog list.
- 4 In the right pane, click **Commands**.
- 5 Click **Power on** or **Shut down**.

To suspend a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** to view a list of the virtual machines.
- 3 Click a virtual machine name in the catalog list.
- 4 In the right pane, click **Commands**.
- 5 Click **Suspend**.

Connecting to a Virtual Machine

You can connect to a virtual machine from your Web browser or using an RDP client application.

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- 4 Click **Connect**.

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Create or Revert to a Snapshot

A snapshot captures the states of a virtual machine's hard drives. You can use the snapshot to return to the saved state. A snapshot does not capture the virtual machine's memory and power state.

Snapshot commands are available to the users and groups who were given control when the virtual machine was requested. The LCM Administrator can also use snapshots. You can access only one snapshot at a time. If you need to revert to a snapshot earlier than the most recent one, contact your LCM Administrator.

To create a snapshot of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.

- 3 In the right pane, click **Commands**.
- 4 Click **Snapshot**.

To revert to a snapshot

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Revert to snapshot**.

The virtual machine returns to the state it was in when the snapshot was taken.

Request to Extend the Life of a Virtual Machine

If you want to continue using a virtual machine beyond its scheduled decommissioning date, you can request an extension. An LCM Approver must approve the extension request if the LCM Administrator has configured LCM to require an approval.

To request to extend the life of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 Near the top of the right pane, click **Extension**.
- 4 In the **Extend Until** field, select the date for the virtual machine to be decommissioned.
- 5 In the **Comment** text box, type the reason for your request.
- 6 In the **Requester E-mail Address** text box, type your email address.
- 7 Click **Submit**.

Decommission a Virtual Machine Immediately

You can decommission a virtual machine before its scheduled date or if a virtual machine has no scheduled decommissioning date.

To decommission a virtual machine immediately

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 Near the top of the right pane, click **Decommission**.
- 4 In the **Comment** text box, type the reason why you want to decommission the virtual machine.
- 5 Click **Submit**.

Review Requests for Approval

You can display the list of virtual machines waiting for approval.

To display a list of requested machines

- 1 Log in to LCM.
- 2 Click **Approvals**.
The virtual machines requesting approval are listed in the left pane.
- 3 Click a virtual machine name to view configuration and status information.

Approve or Reject Requested Virtual Machines

You can approve or reject virtual machine requests if the LCM Administrator has configured LCM to require an approval. If the LCM Administrator has enabled email notifications, you receive a notification when a virtual machine is requested.

To approve or reject a virtual machine request

- 1 Log in to LCM.
- 2 If you received an email notification of a virtual machine waiting for approval, click the link in the email. You can also check all pending requests by clicking **Approvals**.
- 3 Review the details for the requested virtual machine, and then click **Approve Request** or **Reject Request** near the top of the right pane.
- 4 (Optional) In the **Comment** text box, type a comment explaining your decision to reject or approve the request.
- 5 (Optional) If the **Virtual Machine Name** options are available, type values as needed.
- 6 Click **Submit**.

If the virtual machine is approved and no information is missing, it is created at the scheduled time and date. You can log in to the vCenter Client to monitor the progress.

Approve or Reject Requests to Extend the Life of a Virtual Machine

You can approve or reject a request to extend the life of a virtual machine if the LCM Administrator has configured LCM to require an approval. If the LCM Administrator has enabled email notifications, you receive a notification when an extension is requested.

To approve or reject an extension request

- 1 Log in to LCM.
- 2 Click **Approvals**.
- 3 Click the entry for the extension request that requires approval.
- 4 Click **Approve Extension** or **Reject Extension** near the top of the right pane.
- 5 (Optional) In the **Comment** text box, type a comment explaining your decision to reject or approve the request.
- 6 Click **Submit**.

Approve or Reject Requests for Customization Changes

You can approve or reject a request to change the customization template attributes of a virtual machine if the LCM Administrator has configured LCM to require an approval. If the LCM Administrator has enabled email notifications, you receive a notification when a customization change is requested.

To approve or reject a customization request

- 1 Log in to LCM.
- 2 Click **Approvals**.
- 3 Click the entry for the virtual machine that requires approval.
- 4 Click **Approve Change Request** or **Reject Change Request** near the top of the right pane.
- 5 In the **Comment** text box, type a comment explaining your decision to reject or approve the request.
- 6 Click **Submit**.

Generate Reports

You can generate reports for various LCM events. For example, reports can display the cost of provisioning and running a virtual machine. This information helps determine whether a virtual machine should be approved or rejected.

To generate a report

- 1 Log in to LCM.
- 2 Click **Reports**.
- 3 Select the type of report.
- 4 (Optional) Define the report period.
- 5 Click **Submit**.

The report appears in the right pane. You can save the report as an .xml file.

LCM IT Staff Tasks

This chapter describes the tasks that you can perform if you have the LCM IT Staff role. This chapter includes the following topics:

- [“Request a Virtual Machine”](#) on page 25
- [“Display Requested Virtual Machines”](#) on page 27
- [“Check the Power State of a Virtual Machine”](#) on page 28
- [“Power a Virtual Machine On and Off”](#) on page 28
- [“Connecting to a Virtual Machine”](#) on page 28
- [“Create or Revert to a Snapshot”](#) on page 29
- [“Request to Extend the Life of a Virtual Machine”](#) on page 29
- [“Decommission a Virtual Machine Immediately”](#) on page 30
- [“Request to Change the Virtual Machine Customization Attributes”](#) on page 30
- [“Place a Virtual Machine Manually”](#) on page 30
- [“Retry a Request”](#) on page 31
- [“Validate a Request After Manual Intervention”](#) on page 31
- [“Approve or Reject Requests for Customization Changes”](#) on page 31
- [“Generate Reports”](#) on page 32

Request a Virtual Machine

To commission a virtual machine, you must submit a request. You can request a specific start date or accept the first available date.

To request a virtual machine

- 1 Log in to LCM and click the **Requests** view.
- 2 Click **Request**.
- 3 (Optional) To specify a commissioning date, select **Yes** for **Set commissioning date?** and select a date.
If you do not specify a commissioning date, the virtual machine is created at the first available opportunity after approval.
- 4 (Optional) To specify a decommissioning date, select **Yes** for **Set decommissioning date?** and select a date.
If you do not specify a decommissioning date, the virtual machine remains in service until it is decommissioned manually.

- 5 (Optional) Specify who can control the virtual machine request.
If you do not specify a user or group, only you and the LCM Administrator have control.
 - a From the **Virtual machine control by** drop-down menu, select **Group** or **User**.
 - b Type the name of the user or group, or search for a list of available group or user names and descriptions.
 - c Type the email address for the user or group if email notifications are enabled.
- 6 (Optional) Specify who can connect to and view the virtual machine when it is running.
If you do not specify a user or group, only you and the LCM Administrator can view the virtual machine.
 - a From the **Virtual machine view by** drop-down menu, select **Group** or **User**.
 - b Type the name of the user or group, or search for a list of available group or user names and descriptions.
 - c Type the email address for the user or group if email notifications are enabled.
- 7 Click **Next**.
- 8 Select settings for the **Location, Organization, Server Environment, Service Level, and Performance** options.
The available settings for these options are specified by the LCM Administrator.
- 9 Type the requester email and click **Next**.
- 10 Select the **Server type**.
- 11 (Optional) To start the virtual machine as soon as it is provisioned, select **Yes** for **Start virtual machine**.
- 12 Select the **Customization Template**.
- 13 (Optional) To modify the customization template, select **Yes** for **Would you like to customize the attributes of this template?** and change the attribute values as needed. For the attribute values, see [Table 4-1, "Customization Template Attributes"](#).
- 14 Click **Next**.
- 15 Type comments about the virtual machine, which are viewed in the approval process.
- 16 Click **Submit**.

The virtual machine is deleted on the decommissioning date. You cannot get it back, unless the LCM Administrator has configured LCM to archive the virtual machine. If virtual machines are archived, contact your LCM Administrator to retrieve it.

Table 4-1. Customization Template Attributes

Attribute	Values
Memory reservation (MB)	minimum is 0 (default is 256)
Memory limit/size (MB)	range is -1 to 1024; must be a multiple of 4 (default is 1024) Selecting -1 maintains the same memory as the vCenter template.
Memory share	low, normal, or high (default is normal)
CPU reservation (MHz)	minimum is 0 (default is 200)
CPU limit (MHz)	minimum is -1 (default is 2000) Selecting -1 maintains the same CPU number as the vCenter template.
CPU count	1, 2, or 4 (default is 1)
CPU shares	low, normal, or high (default is normal)
Disk shares	low, normal, or high (default is normal)

For additional information on virtual machine resource allocation, see the VMware Infrastructure 3 *Resource Management Guide*.

Display Requested Virtual Machines

You can use filters to view the status of virtual machines that you have requested.

In the **Catalog** view, you can use the following filters to view only virtual machines that meet the criteria.

Table 4-2. Catalog View Filters

Filter	Description
All	Displays the virtual machines that you requested.
Creating	Displays the virtual machines that you requested that are being created.
Available VM	Displays the available virtual machines that you created.
Rejected	Displays the virtual machines that you requested that were rejected.
Decommissioned	Displays the virtual machines that you created that have been decommissioned.
Canceled	Displays the virtual machines that you created and then canceled.
Errors	Displays the virtual machines that you created that have errors.
Waiting For Approval	Displays the virtual machines that you requested that are waiting for approval.
Waiting For Placement	Displays the virtual machines that you requested that are waiting to be correctly placed.
End Of Life	Displays the requested virtual machines that you requested that are decommissioned, archived, rejected, or canceled.
All Except End Of Life	Displays the requested virtual machines that you requested that are not decommissioned, archived, rejected, or canceled.

In the **Requests** view, you can use the following filters to view only virtual machines that meet the criteria.

Table 4-3. Request View Filters

Filter	Description
All Requests	Displays the virtual machines that you requested.
Waiting For Creation	Displays the virtual machines that you requested that are waiting to be created.
Waiting For Approval	Displays the virtual machines that you requested that are waiting for approval.
Waiting For Placement	Displays the virtual machines that you requested that are waiting to be correctly placed.
Creating	Displays the virtual machines that you requested that are being created.
End Of Life	Displays the requested virtual machines that you requested that are decommissioned, archived, rejected, or canceled.
All Except End Of Life	Displays the requested virtual machines that you requested that are not decommissioned, archived, rejected, or canceled.

To display information about requested machines

- 1 Log in to LCM.
- 2 Click **Catalog** or **Requests**.
- 3 Select a filter.
- 4 Click a virtual machine request in the left pane to see a summary of the configuration and status information.

Check the Power State of a Virtual Machine

You can check whether a virtual machine is powered on or off or suspended.

To check the power state of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog**.

The icon to the left of the virtual machine indicates its power state.

- A green triangle indicates that the virtual machine is powered on.
- A red square indicates that the virtual machine is powered off.
- Two parallel yellow bars indicate that the virtual machine is suspended.

Power a Virtual Machine On and Off

Power commands are available to the users and groups who were given control when the virtual machine was requested. The LCM Administrator also has rights to control any virtual machine.

To power a virtual machine on or off

- 1 Log in to LCM.
- 2 Click **Catalog** to view a list of the virtual machines.
- 3 Click a virtual machine name in the catalog list.
- 4 In the right pane, click **Commands**.
- 5 Click **Power on** or **Shut down**.

To suspend a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** to view a list of the virtual machines.
- 3 Click a virtual machine name in the catalog list.
- 4 In the right pane, click **Commands**.
- 5 Click **Suspend**.

Connecting to a Virtual Machine

You can connect to a virtual machine from your Web browser or using an RDP client application.

Only users and groups who were given control when the virtual machine was requested can connect to the virtual machine. The LCM Administrator also has rights to connect to the virtual machine.

Open a Virtual Machine in a Web Browser

From your Web browser, you can connect to a virtual machine running any guest operating system. To connect via your browser, you must have the VMware WebCenter Remote MKS Plug-in installed in your browser.

To open a virtual machine in a Web browser

- 1 Log in to LCM.
- 2 Click **Catalog** and click the virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Open console**.

The virtual machine's desktop appears in a new browser window.

Use Remote Desktop to Connect to a Virtual Machine

You can open a Windows virtual machine using an RDP client application. The client software must be installed on your computer.

To open a virtual machine in a remote desktop

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Connect**.

Your RDP application opens and the virtual machine's desktop appears in the RDP client.

Create or Revert to a Snapshot

A snapshot captures the states of a virtual machine's hard drives. You can use the snapshot to return to the saved state. A snapshot does not capture the virtual machine's memory and power state.

Snapshot commands are available to the users and groups who were given control when the virtual machine was requested. The LCM Administrator can also use snapshots. You can access only one snapshot at a time. If you need to revert to a snapshot earlier than the most recent one, contact your LCM Administrator.

To create a snapshot of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Snapshot**.

To revert to a snapshot

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 In the right pane, click **Commands**.
- 4 Click **Revert to snapshot**.

The virtual machine returns to the state it was in when the snapshot was taken.

Request to Extend the Life of a Virtual Machine

If you want to continue using a virtual machine beyond its scheduled decommissioning date, you can request an extension. An LCM Approver must approve the extension request if the LCM Administrator has configured LCM to require an approval.

To request to extend the life of a virtual machine

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 Near the top of the right pane, click **Extension**.
- 4 In the **Extend Until** field, select the date for the virtual machine to be decommissioned.
- 5 In the **Comment** text box, type the reason for your request.
- 6 In the **Requester E-mail Address** text box, type your email address.
- 7 Click **Submit**.

Decommission a Virtual Machine Immediately

You can decommission a virtual machine before its scheduled date or if a virtual machine has no scheduled decommissioning date.

To decommission a virtual machine immediately

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 Near the top of the right pane, click **Decommission**.
- 4 In the **Comment** text box, type the reason why you want to decommission the virtual machine.
- 5 Click **Submit**.

Request to Change the Virtual Machine Customization Attributes

You can request to change the customization template attributes for a virtual machine that has been placed.

To request to change the virtual machine customization attributes

- 1 Log in to LCM.
- 2 Click **Catalog** and click a virtual machine name in the catalog list.
- 3 Near the top of the right pane, click **Change Request**.
- 4 In the **Comment** text box, type the reason for your request.
- 5 In the **Contact E-mail Address** text box, type your email address.
- 6 Click **Next**.
- 7 Type a customization name.
- 8 Change the attribute values as needed. For the attribute values, see [Table 4-1, "Customization Template Attributes,"](#) on page 26.
- 9 Click **Submit**.

Place a Virtual Machine Manually

If a virtual machine request has missing information and it cannot be created, the LCM IT Staff user can provide the missing configuration information to complete the request. After the information has been provided, you can manually place virtual machines.

To place a virtual machine

- 1 Log in to LCM.
- 2 Click **Placement**.
The virtual machines that you can place are listed in the left pane.
- 3 Click a virtual machine entry to view the configuration and status information.
- 4 Click **Setup** near the top of the right pane.
- 5 Click the magnifying glass icon next to the field for a list of available options.
- 6 Click the appropriate option and click **Select**.
- 7 If the LCM Administrator has configured LCM to allow you to change the virtual machine name, click **Next** to modify the name; otherwise, click **Submit**.

Retry a Request

If a request to commission or decommission a virtual machine encounters an error, the LCM IT Staff user can retry the request.

To retry a request

- 1 Log in to LCM.
- 2 Click **Placement**.
The virtual machines waiting to be placed are listed in the left pane.
- 3 Click the entry for the virtual machine that has encountered an error.
- 4 Click **Retry** near the top of the right pane.
- 5 Select **Yes** for **Would you proceed?** and click **Submit**.

Validate a Request After Manual Intervention

Occasionally a request might require manual intervention. For example, if the Sysprep process inside the virtual machine does not run to completion as the virtual machine is cloned, you might need to open the virtual machine in the vCenter Client and complete the process manually. You can then validate the virtual machine so that LCM can resume managing the request.

To validate a requested virtual machine

- 1 Log in to LCM.
- 2 Click **Placement**.
The virtual machines waiting to be placed are listed in the left pane.
- 3 Click the entry for the virtual machine that has encountered an error.
- 4 Click **Validation** near the top of the right pane.
- 5 In the **Comment** text box, type a comment.
- 6 Click **Submit**.

Approve or Reject Requests for Customization Changes

You can approve or reject a request to change the customization template attributes of a virtual machine if the LCM Administrator has configured LCM to require an approval. If the LCM Administrator has enabled email notifications, you receive a notification when a customization change is requested.

To approve or reject a customization request

- 1 Log in to LCM.
- 2 Click **Placement**.
- 3 Click the entry for the virtual machine that requires approval.
- 4 Click **Approve Shaping Changes** or **Reject Shaping Changes** near the top of the right pane.
- 5 In the **Comment** text box, type a comment explaining your decision to reject or approve the request.
- 6 Click **Submit**.

Generate Reports

You can generate reports for various LCM events. For example, reports can display the virtual machines waiting for placement.

To generate a report

- 1 Log in to LCM.
- 2 Click **Reports**.
- 3 Select the type of report.
- 4 (Optional) Define the report period.
- 5 Click **Submit**.

The report appears in the right pane. You can save the report as an .xml file.

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