CA Automation Suite for Clouds Base Configuration

Service Consumer Guide

Release 1.7.1



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CA Technologies Product References

This documentation set references the following CA Technologies products and components:

- CA Service Catalog
- CA Process Automation
- CA Embedded Entitlements Manager (CA EEM)
- CA Server Automation
- CA Business Intelligence
- CA IT Client Manager

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Chapter 1: Introduction

This guide describes the responsibilities of a Service Consumer. Your responsibilities require you to:

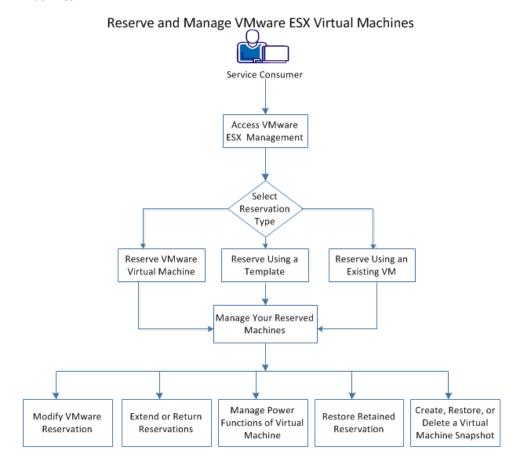
- Manage the lifecycle of VMware ESX virtual machines.
- Request access to the service groups.
- Access the reports.

Chapter 2: Manage the Lifecycle of VMware ESX Virtual Machines

As a Service Consumer, your responsibilities require you to work with virtual machines. The self-service portal allows you to reserve VMware ESX virtual machines and manage their lifecycle. Use the self-service portal to perform the following tasks:

- Reserve one or more virtual machines for a specific time.
- Manage your reserved virtual machines.
 - Modify, extend, or return the virtual machine reservation.
 - Manage power functions to start, stop, reset, suspend, or shutdown VM.
 - Restore an retained/archived VM.
 - Create, restore, or delete a virtual machine snapshot.

Reservations and management requests are subject to approval by your Service Provider or administrator. You receive emails with information about how to access your virtual machines and the status of your requests.



The following diagram illustrates how to reserve and manage VMware ESX Virtual Machines:

Follow these steps:

- 1. Access VMware ESX Management (see page 11).
- 2. <u>Select Reservation Type</u> (see page 11).
 - Reserve VMware Virtual Machine (see page 12).
 - Reserve Using a Template (see page 13).
 - Reserve Using an Existing Virtual Machine (see page 14).
- 3. Manage Your Reserved Machines (see page 14).
 - Modify VMware Reservation (see page 15).
 - <u>Extend or Return Reservations</u> (see page 16).
 - Manage Power Functions of Virtual Machine (see page 17).
 - Restore Retained Reservation (see page 18).
 - Create, Restore, or Delete a Virtual Machine Snapshot (see page 18).

Access VMware ESX Management

The self-service portal lets you reserve and manage virtual machines. The portal centralizes, expedites, and automates virtual-machine requests. The portal is accessible from CA Service Catalog with the URL and credentials that your Service Provider provides.

Follow these steps:

- 1. Log in to CA Service Catalog.
- 2. Click Requests.

The available services list opens.

3. Click CA Automation Suite for Clouds, Server Automation Services, VMware ESX Management.

The VMware ESX Management page opens. You can use the page to request the VMware ESX machines and manage their lifecycle.

Select Reservation Type

You can reserve a virtual machine (or machines) in the following ways:

- Reserve VMware Virtual Machine (see page 12)
- Reserve Using a Template (see page 13)
- Reserve Using An Existing Virtual Machine (see page 14)

You can reserve virtual machines according to your project or business requirements. The configuration options include:

- Operating system
- Installed applications
- Quantity of CPUs
- Amount of memory

You can include multiple requests in one cart.

You can reserve the appropriate resource allocation for a specified period on one or more virtual machines. Ensure that you:

- Provide a unique reservation name as the system does not support duplicate names.
- Modify the default value in the Primary Disk (GB) to extend the primary disk space. The new value that you add must be greater than the default value. You can also request for additional disks depending on your requirement. Contact your Service Provider if you have any issues modifying the value.
- You can add a user or group as a secondary user when reserving and managing virtual machines.
- You can add a user or group to the local administrator group when reserving and managing virtual machines.

When reserving a virtual machine the Service Consumer can set a grace period for a specified number of days to deactivate the virtual machine temporarily. The grace period starts after expiration or cancelation (Return) of the reservation. The VM is deleted only on the completion of the grace period. You can reactivate the VM during the grace period by using the Restore Retained Reservation (see page 18) service by providing the new end date. All the services are unavailable on the reservation when it is in the grace period.

Reserve VMware Virtual Machine

Perform the following procedure for requesting uncommon configurations or for reserving a single machine.

Follow these steps:

- 1. Access VMware ESX Management.
- 2. Click Reserve VMware Virtual Machine.

A form opens with fields for defining the request.

- 3. Complete the required form fields.
 - Additional form fields populate.
- 4. Modify the populated fields as required.
- 5. Click Add to Cart to continue adding more requests to the cart.
 - The request is added to the cart.
- 6. Click Check Out when you complete adding the requests.

7. Review your request details, and click Save and Submit Cart.

A confirmation message displays. Your request is processed. An Approving Manager reviews your reservation. You receive an email indicating whether your request was approved or declined.

When request is complete, you get an email with provisioned VM details and include information about how to access your resources. The email also contains the URL of the virtual machine, if the administrator allows remote access to virtual machine.

Reserve Using a Template

You can create a virtual machine (or machines) based on a reservation template with predefined resources. A reservation template provides the flexibility to select and deploy virtual machines automatically. You can add additional software packages to the base operating system after it is deployed.

Follow these steps:

- 1. Access VMware ESX Management.
- 2. Click Reserve Using a Template.

A form opens with fields for defining the request.

- 3. Complete the required form fields.
 - Additional form fields populate.
- 4. Modify the populated fields as required.
- 5. Click Add to Cart to continue adding more requests to the cart.
 - The request is added to the cart.
- 6. Click Check Out when you complete adding the requests.
- 7. Review your request details, and click Save and Submit Cart.

A confirmation message displays. Your request is processed. An Approving Manager reviews your reservation. You receive an email indicating whether your request was approved or declined.

When request is complete, you get an email with provisioned VM details and include information about how to access your resources. The email also contains the URL of the virtual machine, if the administrator allows remote access to virtual machine.

Reserve Using an Existing Virtual Machine

You can create a virtual machine using an existing VM. This option provides the flexibility to select and deploy virtual machines automatically using an existing virtual machine from your previous reservation which is in ready state.

Follow these steps:

- 1. Access VMware ESX Management.
- 2. Click Reserve Using An Existing Virtual Machine.
 - A form opens with fields for defining the request.
- 3. Complete the required form fields.
 - Additional form fields populate.
- 4. Modify the populated fields as required.
- 5. Click Add to Cart to continue adding more requests to the cart.
 - The request is added to the cart.
- 6. Click Check Out when you complete adding the requests.
- 7. Review your request details, and click Save and Submit Cart.

A confirmation message displays. Your request is processed. An Approving Manager reviews your reservation. You receive an email indicating whether your request was approved or declined.

When request is complete, you get an email with provisioned VM details and include information about how to access your resources. The email also contains the URL of the virtual machine, if the administrator allows remote access to virtual machine.

Manage Your Reserved Machines

After successful reservation of virtual machines, you can manage their lifecycles from the self-service portal. You can:

- Modify VMWare reservation (see page 15). You can modify the hardware configuration of the VM and the secondary users who manage the reservations.
- Extend or return reservations (see page 16). If you require a machine longer than you originally requested, you can request to extend your reservation. If you no longer require a machine, you can return it back to the resource pool.

- Manage power functions of a virtual machine (see page 17).
- Restore Retained Reservation (see page 18).
- <u>Create and manage snapshots</u> (see page 18). Snapshots are ideal for capturing complex configurations and rapidly restoring machines to a previous state.

Modify VMware Reservation

Your virtual machine requirements can change after your machine is available. You can increase or decrease the quantity of CPUs and amount of memory on the virtual machines you reserved. Your Service Provider sets the available configuration options. Additionally, configuration change requests are subject to approval by your service provider or administrator.

You can add, modify, or remove disks to the virtual machine when the storage requirement changes. You cannot reduce the disk size as it can delete the data in the disk. You can also change the secondary users who manage the reservation.

You can modify the attributes like CPU, Memory and so on of a reservation that starts on a future date.

You can schedule the change to the VMware virtual machine. To schedule a VM change, select the Schedule Change check box, and enter the expected date and time of the change. The CA Service Catalog processes the request at the specified time.

The following functionality is available if you are using CA Server Automation r12.8.1 or later version. They are not available in CA Server Automation r12.8 or earlier versions.

Reboot VM on Modify VMware

Sometimes for changes to VM to take effect a reboot is required. If a reboot is not required, then the changes are made in the VM immediately. When a reboot is required, the CA Service Catalog prompts the same and you can schedule the VM reboot without affecting the VM users.

The status request that needs reboot changes to Pending User Approval.

Do one of the following actions to complete the request:

- You can open the request from the Pending My Actions page and can click Approve VM Reboot to approve the change.
 - The request status changes to Completed.
 - The VM is reconfigured when it goes down for a reboot.
- You can open the request from the Pending My Actions page and can click Cancel to cancel the request.

Follow these steps:

- 1. Access VMware ESX Management.
- 2. Click Modify VMware Reservation.

A form opens.

3. Complete the required form fields.

The Additional form fields populate.

- 4. Modify the populated fields as required.
- 5. Click Add to Cart to continue adding more requests to the cart.

The request is added to the cart.

- 6. Click Check Out when you complete adding the requests.
- 7. Review your request details, and click Save and Submit Cart.

A confirmation message displays. Your request is processed. You receive an email indicating whether your request was approved or rejected.

Extend or Return Reservations

As your project and business requirements change, you can modify the durations of your virtual machine reservations.

Note: Your Approving Manager determines the latest date to which you can extend a reservation. You cannot edit the value.

You can return a reservation either partially or in full. When you return a reservation partially you receive a confirmation email with the details of the VMs that are returned. In case entire reservation is returned, the email does not contain the list of VMs but the email displays the return type as whole reservation.

Returning the reservation restores the unneeded allocated capacity and performance to the resource pool. Before you return a reservation, consider creating a snapshot of your virtual environment in case you require it again later.

You cannot return a reservation that is approved and in the Pending Fulfillment status. Wait until the virtual machine is provisioned, and then cancel the reservation.

Follow these steps:

- 1. Access VMware ESX Management.
- 2. Click one of the following options:
 - Extend VMware Reservation
 - Return VMware Reservation

A form opens.

3. Complete the required form fields.

The Additional form fields populate.

- 4. Modify the populated fields as required.
- 5. Click Add to Cart to continue adding more requests to the cart.

The request is added to the cart.

- 6. Click Check Out when you complete adding the requests.
- 7. Review your request details, and click Save and Submit Cart.

A confirmation message displays. Your request is processed. You receive an email indicating whether your request was approved or rejected.

Manage Power Functions of Virtual Machine

You can manage the power functions of your Virtual Machine. The available power functions are: Start, Stop, Reset, Suspend, or Shutdown VM.

Follow these steps:

- 1. Access VMware ESX Management.
- 2. Click VMware Power Functions.

A form opens.

- 3. Complete the required form fields.
- 4. Click Add to Cart to continue adding more requests to the cart.

The request is added to the cart.

- 5. Click Check Out when you complete adding the requests.
- 6. Review your request details, and click Save and Submit Cart.

A confirmation message displays. Your request is processed.

Restore Retained Reservation

When the VM is in the grace period, all the services are unavailable on the reservation and the VM is in archived state. You can restore an archived machine to a previous state to use the VM.

Follow these steps:

- 1. Access VMware ESX Management.
- 2. Click Restore Retained Reservation.
 - A form opens.
- 3. Complete the required form fields.
 - The Additional form fields populate.
- 4. Modify the populated fields as required.
- 5. Click Add to Cart to continue adding more requests to the cart.
 - The request is added to the cart.
- 6. Click Check Out when you complete adding the requests.
- 7. Review your request details, and click Save and Submit Cart.

A confirmation message displays. Your request is processed. You receive an email indicating whether your request was approved or rejected.

Create, Restore, or Delete a Virtual Machine Snapshot

Snapshots are ideal for rapid, time-saving back-ups and restorations. You typically use snapshots to:

- Duplicate an original configuration.
- Capture a complex configuration.
- Capture a configuration before your reservation date expires.
- Back up data.

You can create, delete, and restore snapshots from the self-service portal. When working with snapshots, note the following important information:

- The new snapshots are subject to approval by a Service Provider or Administrator.
- You can only work with snapshots you created or to which you have access.
- Create a snapshot to capture a complex setup or to save data.
- Snapshots are valid for the lifecycle of the machine you create them for. You cannot create a snapshot of one machine and then deploy it to another machine.

- The administrator can configure the maximum number of snapshots a Service Consumer can create for a virtual machine. When the limit is reached, creation of snapshot is handled based on the option the administrator configures.
- Before you restore a snapshot, verify that the restored snapshot is accurate.
- If a snapshot becomes obsolete, delete the snapshot to avoid restoring an incorrect configuration.
- You cannot cancel a snapshot request that is approved and in the Pending Fulfillment status. Wait until the snapshot is created and then delete the snapshot.

Follow these steps:

- 1. Access VMware ESX Management.
- 2. Click Snapshots.
- 3. Click one of the following options:
 - Create Snapshot
 - Restore Snapshot
 - Delete Snapshot

A form opens.

Note: While creating a snapshot, if the existing snapshots reach the maximum limit the CA Service Catalog prompts the same or deletes the oldest snapshot.

4. Complete the required form fields.

The Additional form fields populate.

- 5. Modify the optional form fields as required.
- 6. Click Add to Cart to continue adding more requests to the cart.

The request is added to the cart.

- 7. Click Check Out when you complete adding the requests.
- 8. Review your request details, and click Save and Submit Cart.

A confirmation message displays. Your request is processed. For new snapshots, you receive an email indicating whether your request was approved or rejected with important information about working with your snapshot.

Now you know how to reserve and manage VMware ESX virtual machines. You can reserve machines, alter hardware configurations, extend, or return the machines that you reserved, create and manage snapshots, manage power functions, and restore a retained reservation.

Chapter 3: User and Access Management

As a Service Consumer, your responsibilities require you to manage the services that CA Automation Suite for Clouds offers. The self-service portal allows you to use and manage the services. Use the self-service portal to request access to service groups.

Request Access to Service Groups

Service groups determine the services that users in that service group can access. You can request access to add a user to one or more service groups.

Follow these steps:

- 1. Log in to CA Service Catalog.
- 2. Click Requests, CA Automation Suite for Clouds.
 - The CA Automation Suite for Clouds page opens.
- 3. Click Foundation Management Services, User, and Access Management.
- 4. Click Request Access to Service Group.
 - A form opens with your ID and the groups to which you currently belong.
- 5. Add or remove yourself from service groups using the arrows.
- 6. Click Add to Cart to continue adding more requests to the cart.
 - The request is added to the cart.
- 7. Click Check Out when you complete adding the requests.
- 8. Review your request details, and click Save and Submit Cart.

A confirmation message appears indicating that your request was submitted.

Your Approving Manager reviews your service group access request and, if approved, adds you to the requested user-groups. The My Recent Requests pane updates showing your new and previous reservations.

Chapter 4: View and Run Reports

Reports can assist with request approvals by giving you a picture of resource usage and availability. You can also generate service accounting reports and querying data in a specified range. You can generate specific reports for stakeholders or can verify the compliance with Service Level Agreements.

The Self-Service Portal allows you to generate and view reports. The portal is accessible from CA Service Catalog with the URL and credentials that your Service Provider provides.

Follow these steps:

- 1. Log in to CA Service Catalog.
- 2. Click Administration, Report Builder, InfoView.

The BusinessObjects InfoView page opens.

3. Click Document List and navigate to Public Folders, CA Reports, CA SLCM.

The CA SLCM folder contains two folders:

Admin Reports

Provides reports of interest to Approving Managers and Service Providers.

User Reports

Provides reports of interest to service consumers, such as the User Requests report. This report provides details about requests that were opened, approved, or fulfilled within specific time periods.

Note: Your access to folders and reports depends on your access privileges.

4. Double-click a report.

The Prompt dialog opens.

- 5. Enter the specific parameters to generate the report.
- 6. Click Run Query.

The report generates and opens.