



## **Red Hat CloudForms 4.6**

# **Assigning a Custom Analysis Profile to a Virtual Machine**

How to assign a custom CloudForms analysis profile to a virtual machine



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## Abstract

This guide provides instructions for assigning a custom CloudForms analysis profile to a virtual machine. If you have a suggestion for improving this guide or have found an error, please submit a Bugzilla report at <http://bugzilla.redhat.com> against Red Hat CloudForms Management Engine for the Documentation component. Please provide specific details, such as the section number, guide name, and CloudForms version so we can easily locate the content.

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You can create and assign different analysis profiles for specific virtual machine configurations using the Red Hat CloudForms user interface. This document describes the steps required to create a custom virtual machine analysis profile, and assigning it to a virtual machine for use with SmartState analysis, via a control policy.

1. Creating a Virtual Machine Analysis Profile
2. Creating an Action to Assign the Virtual Machine Analysis Profile to Analysis Task
3. Creating a Virtual Machine Control Policy
4. Creating a Policy Profile and Assigning the Virtual Machine Control Policy
5. Assigning the Policy Profile to a Virtual Machine

## 1. CREATING A VIRTUAL MACHINE ANALYSIS PROFILE

1. Log into the appliance as the **admin** user.
2. From the settings menu, select **Configuration**.
3. Expand the **Settings** accordion, then click **Analysis Profiles**.
4. Click  (**Configuration**), then  (**Add VM Analysis Profile**).
5. In **Basic Information**, enter **Name** and **Description** for the analysis profile.
6. In the **Category** tab, select the categories you want to collect information for under **Category Selection**. The **Category** tab is available for virtual machine profiles only.
7. In the **File** tab, click **<New Entry>** and specify the file to be scanned and if you want to collect contents for, then click **Save**. Repeat the step for adding multiple file name entries.
8. In the **Registry** tab, enter the **Registry Key** and **Registry Value**, then click **Save**. To determine whether a registry key exists without providing a value, enter **\*** in **Registry Value**. The **Registry** tab is available for virtual machine profiles only.
9. In the **Event Log** tab, specify the event log entries to collect. Enter a **Filter Message** to look for specific text in a message. Enter a **Level** (*info*, *warn* or *error*, for example) to specify the event level. Enter the **Source** for the event log entry and **# (Number) of Days** to specify how far back to check.
10. Click **Add**.

## 2. CREATING AN ACTION TO ASSIGN THE VIRTUAL MACHINE ANALYSIS PROFILE TO THE ANALYSIS TASK

Actions are performed after the condition is evaluated. You can associate actions with specific events when you create a policy. Red Hat CloudForms provides a set of default actions, but you can also create custom actions using the CloudForms user interface.

Use this procedure to create a custom action by adding the **Assign Profile to Analysis Task** action type to the virtual machine analysis profile (created in [Section 1, "Creating a Virtual Machine Analysis Profile"](#)).



## Adding a new Action

## Basic Information

Description	<input type="text" value="Created Custom Action"/>
Action Type	<input type="text" value="Assign Profile to Analysis Task"/>

## Analysis Profiles

Analysis Profiles	<input type="text" value="VM Analysis Profile"/>
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1. Navigate to **Control** → **Explorer**.
2. Expand the **Actions** accordion and click  (**Configuration**), then  (**Add a new Action**).
3. Enter a **Description** for the new action. This will be the name given to your new action.
4. Select **Assign Profile to Analysis Task** from the **Action Type** list.
5. Select the newly-created virtual machine analysis profile from the **Analysis Profiles** list.
6. Click **Add**.



**NOTE**


You can only associate this action with an analysis start event.





The action is created and added to the **Available Actions** list. Associate this action with the **VM Analysis Start** event when you create a virtual machine control policy in the next procedure.

### 3. CREATING A VIRTUAL MACHINE CONTROL POLICY

You can create a control policy by combining an event, a condition, and an action. The procedure below describes how to create a virtual machine control policy to assign the newly-created action to the **VM Analysis Start** event. Optionally, you can use a scope expression that is tested immediately when the policy is triggered by an event. If the item is out of scope, then the policy will not continue on to the conditions, and the assigned action will not run.

1. Navigate to **Control** → **Explorer**.
2. Expand the **Policies** accordion, and click **Control Policies**.
3. Select **Vm Control Policies**.
4. Click  (**Configuration**), then  (**Add a New VM and Instance Control Policy**).
5. Enter a **Description**. This will be the name given to your VM control policy.
6. Clear the **Active** box if you do not want this policy processed even when assigned to a resource.
7. Optional: Enter a **Scope** (you can also create a scope as part of a condition, or not use one at all). If the virtual machine is not included in the scope, the assigned action will not run.

You can use the drop-down list to create an expression for the **Scope**. Based on what you choose, different options appear. Click  (**Commit expression element changes**) to add the scope.

8. Enter **Notes** if required.
9. Click **Add**. The policy is added and listed under **Vm Control Policies** in the **Policies** accordion.
10. Select the newly-added VM control policy. You can now associate events, conditions, and actions with the policy.
11. Click  (**Configuration**), then  (**Edit this Policy's Event assignments**).
12. Under **VM Operation**, set **VM Analysis Start** to **Yes**.
13. Click **Save**.
14. Click the **VM Analysis Start** event to configure actions.
15. Click  (**Configuration**), then  (**Edit Actions for this Policy Event**).
16. In **Order of Actions if ALL Conditions are True**, select the action created in [Section 2, "Creating an Action to Assign the Virtual Machine Analysis Profile to the Analysis Task"](#) from the **Available Actions** list. This action will take place if the resources meet the conditions of the policy.

Editing Event "VM Analysis Start"

Basic Information

Event Group	VM Operation
Attached to Policy	VM Control Policy 1

Order of Actions if ALL Conditions are True

Available Actions:		Selected Actions:	
<ul style="list-style-type: none"> <li>Annotate image with scan results and execution prevention status</li> <li>Cancel vCenter Task</li> <li>Check Host or VM Compliance</li> <li>Collect Running Processes on VM Guest OS</li> <li>Connect All CD-ROM Drives for Virtual Machine</li> <li>Connect All Floppy Drives for Virtual Machine</li> <li>Connect All Floppy and CD-ROM Drives for Virtual Machine</li> </ul>	<ul style="list-style-type: none"> <li>&gt;</li> <li>&lt;&lt;</li> <li>&lt;</li> </ul>	<ul style="list-style-type: none"> <li>(S) Created Custom Action</li> </ul>	<ul style="list-style-type: none"> <li>^</li> <li>v</li> <li>S</li> <li>A</li> </ul>

Order of Actions if ANY Conditions are False

Available Actions:		Selected Actions:	
<ul style="list-style-type: none"> <li>Annotate image with scan results and execution prevention status</li> <li>Cancel vCenter Task</li> <li>Check Host or VM Compliance</li> <li>Collect Running Processes on VM Guest OS</li> <li>Connect All CD-ROM Drives for Virtual Machine</li> <li>Connect All Floppy Drives for Virtual Machine</li> <li>Connect All Floppy and CD-ROM Drives for Virtual Machine</li> </ul>	<ul style="list-style-type: none"> <li>&gt;</li> <li>&lt;&lt;</li> <li>&lt;</li> </ul>		<ul style="list-style-type: none"> <li>^</li> <li>v</li> <li>S</li> <li>A</li> </ul>



## NOTE

Each selected action can be executed synchronously or asynchronously; a synchronous action will not start until the previous synchronous action is completed, while an asynchronous action allows the next action to start whether or not the first action has completed. Also, at least one CloudForms server in the CloudForms zone must have the notifier server role enabled for the trap to be sent.

17. Click (  ) which will move the action to **Selected Actions**. The selected action is set to (S) Synchronous by default. From **Selected Actions**, select the action, then:
  - Click **A** (Set selected Actions to Asynchronous) to make it asynchronous.






- Click **S** (Set selected Actions to Synchronous) to make it asynchronous, to make it asynchronous.

- Click **S** (Set selected Actions to Synchronous) to make it synchronous. If creating a synchronous action, use the up and down arrows to identify in what order you want the actions to run.

18. Click **Save**.

## 4. CREATING A POLICY PROFILE AND ASSIGNING THE VIRTUAL MACHINE CONTROL POLICY

Add a new policy profile and assign the virtual machine control policy (created in [Section 3, “Creating a Virtual Machine Control Policy”](#)) to it.

1. Navigate to **Control** → **Explorer**.
2. Expand the **Policy Profiles** accordion, click  (**Configuration**), then  (**Add a New Policy Profile**).
3. In the **Basic Information** area, enter a **Description** for the policy profile.
4. Under **Policy Selection**, select the virtual machine control policy created in [Section 3, “Creating a Virtual Machine Control Policy”](#) from the **Available Policies** list.
5. Click (  ) to move the selected virtual machine control policy into this profile.
6. Click **Add**.





## 5. ASSIGNING THE POLICY PROFILE TO A VIRTUAL MACHINE

Assign the policy profile you created in [Section 4, “Creating a Policy Profile and Assigning the Virtual Machine Control Policy”](#) to a virtual machine, and initiate SmartState analysis.



### NOTE

Policy profiles can be specified at multiple levels. If you assign a policy profile to a provider (Amazon EC2 or OpenStack for example), the profile will apply to all hosts or virtual machines for that provider.

1. Navigate to **Compute** → **Clouds** → **Instances** or **Compute** → **Infrastructure** → **Virtual Machines**. Select the virtual machine or instance.
2. Click  (**Policy**), then  (**Manage Policies**).
3. Under **Select Policy Profiles**, select the policy profile created in [Section 4, “Creating a Policy Profile and Assigning the Virtual Machine Control Policy”](#). It will turn blue to show the selection. Click the triangle next to the policy profile to see its member policies.
4. Click **Save**.
5. Click  (**Configuration**), then  (**Perform SmartState Analysis**). A pop-up window appears to confirm the action.

6. Click **OK**. SmartState analysis is initiated for the selected virtual machine or instance from the CloudForms database.

SmartState analysis will now report back findings specified by the custom virtual machine analysis profile.