



Red Hat CloudForms 4.0 Integration with ServiceNow

A short guide to managing CloudForms ServiceNow CMDB integration

CloudForms Team

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CloudForms Team
cloudforms-docs@redhat.com

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Abstract

This guide provides instructions for using the CloudForms Management Engine features relevant to non-administrative users. It establishes basic system and operational concepts through task based scenarios and examples.

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CHAPTER 1. OVERVIEW

Red Hat CloudForms' integration with ServiceNow enables authentication with an existing ServiceNow database and add/amend items in the ServiceNow database during state machine processing, for example, the VM provision state machine. Note that information in this guide assumes you have credentials and access to a ServiceNow database instance.

The following new namespace and class delivers support for the management of ServiceNow Configuration Management Database (CMDB) records using ServiceNow's RESTful web service.

```
/RedHat/Integration/ServiceNow/CMDB
```

You can manage records in the CMDB_CI_SERVER table, including create, update, and/or delete. The following methods are included:

1.1. CMDB_CI_SERVER

Method	Action
create	Create record in specified ServiceNow table.
delete	Delete record in specified ServiceNow table.
get	Get record from specified ServiceNow table and list its attributes.
get_all	Get all records in ServiceNow and list attributes.
update	Get specified record, update required attributes and post updated record.

Method	Action	
update_patch	Post required attributes to specified record.	<p>+ [Note] ===== Configuration item (CI) and record are used interchangeably and refer to items in a ServiceNow database table. ===== +</p> <p>== Managing Record Attributes</p> <p>You can specify any attribute via the URI or CMDB class instance. If neither exists, the value is determined from the CloudForms VM or miq_provision objects.</p> <p>The attributes can be reduced or extended as required by amending the Ruby methods.</p> <p>+ [Note] ===== Some attributes are not free-text (variable) fields, that is, they must be specific values. For example, Vendor value must already exist in the ServiceNow Vendor table beforehand. =====</p> <p>=== Create and Update (_patch) Record You can use the following attributes when creating and/or updating a record.</p> <p>===== Attribute [width="50%"]</p>

|Attribute |Value |

|virtual |Boolean true or false, set to true. |

|name VM's |Virtual Infrastructure name. |

|short_description |CloudForms VM GUID. |

|host_name |VM's Operating System hostname. |

|cpu_count |VM's CPU count. |

|ram |VM's memory. |

|vendor |VM's hardware vendor (provider). |

|sys_id ^[1] |ServiceNow record unique system ID.

|===== |

1.2. GET AND DELETE RECORD

You can use the following attribute for getting or deleting a record.

✎ Attribute

✎ Value

✎ sys_id

ServiceNow record unique system ID.

1.3. GET ALL RECORDS

There are no attributes required to get all records. Method gets all records in the specified ServiceNow table and writes their attributes to automation.log.


[1] sys_id attribute is not required during create. Its value is returned from create request and the CloudForms object custom attribute servicenow_sys_id is created and updated.

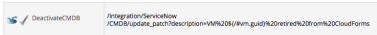
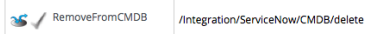

CHAPTER 2. CONFIGURING SERVICENOW CONNECTION

Configure the connection to the ServiceNow database by specifying the credentials in the CMDB schema or instances within.

The following methods are included:

2.1. ATTRIBUTE

snow_server	ServiceNow database IP address or resolvable hostname.	
snow_user	ServiceNow user account with the necessary permissions.	
snow_password	Associated user account password.	
table_name	ServiceNow cmdb_ci_server database table.	<p>The table name cannot be changed unless there is a specific requirement to manage records elsewhere. Entries in this table appear in the Configuration → Base Items → Servers menu in the ServiceNow web user interface.</p> <p>== Use Cases</p> <p>See the following use case examples of how ServiceNow can be integrated with automation workflow.</p> <p>=== Provision VM from Template</p> <p>The Cloud and Infrastructure Provision VM from Template state machines contain RegisterCMDB and ActivateCMDB states.</p> <p>To create a new ServiceNow record during VM provisioning, amend the ActiveCMDB state to call the create method, for example: ----- /Integration/ServiceNow/CMDB/create -----</p> <div><div> ActivateCMDB</div><div>/Integration/ServiceNow/CMDB/create</div></div>

snow_server	ServiceNow database IP address or resolvable hostname.	<p>=== VM Retirement</p> <p>The Cloud and Infrastructure Default retirement state machines contain</p> <p>DeactivateCMDB and RemoveFromCMDB states.</p> <p>To update a VM ServiceNow record during VM retirement, amend the DeactivateCMDB state to call the update_patch method, for example: -----</p> <pre>Integration/ServiceNow/CMDB/update_patch? description=VM%20\${#vm.guid}%20retired%20from%20CloudForms -----</pre>  <p>To delete a VM ServiceNow record during VM retirement, amend the RemoveFromCMDB state to call the delete method, for example: -----</p> <pre>/Integration/ServiceNow/CMDB/delete -----</pre>  <p>=== VM Reconfiguration (VMware Only)</p> <p>Create a new System Event instance to update the ServiceNow record after a VM reconfiguration request has been approved and completed.</p> <p>Create a new</p> <pre>/System/Event/ReconfigVM_Task_Complete</pre> <p>instance with a relationship value: -----</p> <pre>/Integration/ServiceNow/CMDB/update_patch -----</pre> 
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