Red Hat CloudForms 4.7

Release Notes

Summary of new features, corrections, and known bugs for Red Hat CloudForms Management Engine 5.10
Red Hat CloudForms 4.7 Release Notes

Summary of new features, corrections, and known bugs for Red Hat CloudForms Management Engine 5.10

Red Hat CloudForms Documentation Team
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Abstract

A summary of enhancements, known bugs, and support information for Red Hat CloudForms 4.7. 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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8.2. Red Hat CloudForms 4.7.1
  8.2.1. RHBA-2019-0453: CloudForms 4.7.1 Bug fix and enhancement update
  8.2.2. RHBA-2019-0454: CloudForms 4.7.1 images for OpenShift bug fix and enhancement update
  8.2.3. RHBA-2019-0455: CloudForms 4.7.1 Amazon EC2 SmartState Client bug fix update

8.3. Red Hat CloudForms 4.7.2
  8.3.1. RHBA-2019-0694: CloudForms 4.7.2 Bug fix and enhancement update
  8.3.2. RHBA-2019-0695: CloudForms 4.7.2 images for OpenShift bug fix and enhancement update
  8.3.3. RHBA-2019-0696: CloudForms 4.7.2 Amazon EC2 SmartState Client bug fix update

8.4. Red Hat CloudForms 4.7.3
  8.4.1. RHSA-2019-0796: Important: CloudForms 4.7.3 security, bug fix, and enhancement update
  8.4.2. RHBA-2019-0797: CloudForms 4.7.3 Bug fix and enhancement update
  8.4.3. RHBA-2019-0798: CloudForms 4.7.3 Bug fix and enhancement update

8.5. Red Hat CloudForms 4.7.4
  8.5.1. RHBA-2019-1247: CloudForms 4.7.4 Bug fix and enhancement update
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  8.7.1. RHBA-2019-1644: CloudForms 4.7.6 Bug fix and enhancement update
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1. INTRODUCTION

Red Hat CloudForms Management Engine (CFME) delivers the insight, control, and automation enterprises need to address the challenges of managing virtual environments, which are far more complex than physical ones. This technology enables enterprises with existing virtual infrastructures to improve visibility and control, and those just starting virtualization deployments to build and operate a well-managed virtual infrastructure.

Red Hat CloudForms 4.7 is comprised of a single component, the CloudForms Management Engine. It has the following feature sets:

- **Insight**: Discovery, Monitoring, Utilization, Performance, Reporting, Analytics, Chargeback, and Trending.
- **Control**: Security, Compliance, Alerting, Policy-Based Resource and Configuration Management.
- **Automate**: IT Process, Task and Event, Provisioning, Workload Management and Orchestration.

1.1. Getting Support

If you experience difficulty with a procedure described in this documentation, visit the Red Hat Customer Portal at [http://access.redhat.com](http://access.redhat.com). Through the customer portal, you can:

- Search or browse through a knowledgebase of technical support articles about Red Hat products
- Submit a support case to Red Hat Global Support Services (GSS)
- Access other product documentation

Red Hat also hosts a large number of electronic mailing lists for discussion of Red Hat software and technology. You can find a list of publicly available mailing lists at [https://www.redhat.com/mailman/listinfo](https://www.redhat.com/mailman/listinfo). Click on the name of any mailing list to subscribe to that list or to access the list archives.

1.2. Red Hat CloudForms Life Cycle

For an overview of the life cycle phases for Red Hat CloudForms and the status of support for this product, see [Red Hat Cloudforms Life Cycle](#).

2. MIGRATION CONSIDERATIONS

2.1. Migrating to a New Appliance

If you are migrating from an existing appliance to a new one, the target appliance must be able to accommodate the new 12 Gb resource profile used by Red Hat CloudForms 4.7, even if the source appliance only uses 8 Gb.

2.2. Migrating on the same appliance
If you are migrating from a previous version of Red Hat CloudForms to Red Hat CloudForms 4.7 using the same appliance, the resource profile will remain the same. Before installing or starting any providers, however, you must assess your memory needs and adjust the resource profile accordingly to avoid performance issues.

### 3. TECHNOLOGY PREVIEW

The following enhancements are available with this release of Red Hat CloudForms as technology preview only.

#### NOTE

For more information on the support scope for features marked as technology previews, see Technology Preview Features Support Scope

Integration with Redfish Physical Infrastructure Provider

Red Hat CloudForms supports the following Redfish physical infrastructure provider functionality:

- Inventory
- LED Identification Operations
- Power Operations
- Events

Integration with OpenShift Prometheus, Alert Management

- Red Hat CloudForms can receive alerts from Prometheus in OpenShift Container Platform
- Alerts generated by Prometheus are visible in the Red Hat CloudForms user interface
- Ability to assign alerts to a user and add notes

Integration with ServiceNow CMDB

You can integrate Red Hat CloudForms into ServiceNow to enable authentication with an existing ServiceNow database and add/amend items in the ServiceNow database during state machine processing, such as the virtual machine provisioning state machine.

Red Hat Insights Plug-In

You can access Red Hat Insights directly from the Red Hat CloudForms appliance web user interface. Red Hat Insights is an automated service that provides information that helps you to rapidly identify key issues in your Red Hat CloudForms deployment.

### 4. ENHANCEMENTS

The following enhancements are available with Red Hat CloudForms 4.7 (CFME 5.10).

#### 4.1. Maintenance

This release of Red Hat CloudForms contains the following new features and enhancements to the general functionality of Red Hat CloudForms:

- It is now possible to create a database dump from the `appliance_console` menu.
- It is now possible to specify AWS S3 as a backup destination for the Red Hat CloudForms database.
- It is now possible to export custom buttons by running the following command:

  ```bash
  # rake evm:export:custom_buttons -- --directory <directory_name>
  ```
- It is now possible to use the `groupMembership` attribute for LDAP searches.
- It is now possible to collect logs for the Automate model and service dialogs.
- It is now possible to create a chargeback report in a global region for the same tenant across all sub-regions.
- It is now possible to initiate SmartState Analysis container image scans via the REST API.
- It is now possible to receive more detailed information about infrastructure providers via the REST API.
- It is now possible to delete datastores via the REST API.
- It is now possible to tag cloud network, subnets, flavors, availability zones, routers and security groups via the REST API.
- It is now possible to delete groups when the user in that group belong to another group.
- A new report is now available for the number of hypervisor cores.
- Common settings for appliances in the same zone are now inherited from the region.

### 4.2. Providers

**Amazon EC2**

This release of Red Hat CloudForms contains the following new features and enhancements for Amazon EC2 providers:

- It is now possible to add and remove volumes to and from instances.
- It is now possible to specify a custom endpoint for Amazon EC2 providers.

**Ansible**

This release of Red Hat CloudForms contains the following new features and enhancements for Ansible providers:

- Integration with external Ansible Tower workflows.
- RBAC controls are now available for playbooks, repositories, and credentials.

**Microsoft Azure**

This release of Red Hat CloudForms contains the following new features and enhancements for Microsoft Azure providers:

- It is now possible to perform targeted refresh of Microsoft Azure providers.

**Red Hat Virtualization**
This release of Red Hat CloudForms contains the following new features and enhancements for Red Hat Virtualization providers:

- It is now possible to unregister a virtual machine.
- It is now possible to use Sysprep to customize virtual machines provisioned through Red Hat Virtualization.

**Nuage Networks Provider**

This release of Red Hat CloudForms supports the following Nuage Networks provider functionality:

- Monitor events and alarms from Nuage VSP environment
- Leverage events and alarms for automation reporting
- Visibility in Nuahe VSP tenants, overlay networks, security groups and ports
- Relationships between Nuage entities

**Lenovo Physical Infrastructure Provider**

This release of Red Hat CloudForms supports the following Lenovo XClarity Administrator provider functionality:

- Manage physical-infrastructure providers
- Manage physical servers
- Manage physical chassis
- Manage physical racks, storage systems, switches
- Events
- Relationships between physical servers and virtual hosts

**4.3. Administrative User Interface**

This release of Red Hat CloudForms contains the following new features and enhancements for the administrative user interface:

- Additional currencies have been added as options for chargeback reports.
- It is now possible to export and import SmartState Analysis profiles.
- It is now possible to rename virtual machines from the administrative user interface.
- It is now possible to edit the settings of other appliances from the administrative user interface.
- It is now possible to receive a notification when a worker exceeds or is close to exceeding its memory threshold.

**4.4. Security**

This release of Red Hat CloudForms contains the following new features and enhancements for alerts and notifications:
An event is now raised in CloudForms when a user logs in using external authentication for the first time.

An event is now raised in CloudForms on a failed login attempt.

4.5. REST API

The action in the API call to retire a service is now "request_retire":

```plaintext
POST /api/services/<id>
{
    "action" : "request_retire"
}
```

5. DEPRECATED FUNCTIONALITY IN NEXT MAJOR VERSION

The following will be deprecated with the next release of Red Hat CloudForms (CFME 5.11).

Deprecated support for Red Hat CloudForms appliances running on the following cloud providers:

- Amazon EC2
- Microsoft Azure
- Google Compute Engine
- Red Hat OpenShift Platform

Deprecated provider:

- Google Compute Engine

No longer supported for Cloud Intelligence:

- RSS Feed
- Timelines

No longer supported for Optimization:

- Bottleneck
- Planning

Additional deprecations:

- All Public Providers Load Balancer Inventory

6. CHANGING THE USER INTERFACE LOCALE

Red Hat CloudForms allows you to change the locale of the user interface to one of several preset locales.

This procedure outlines how to change the user interface locale.
1. Navigate to **Settings → My Settings** from the navigation bar.

2. Select the user interface locale from the **Locale** list in the **Display Settings** area.

3. Click **Save**.

### 6.1. User Interface Locales

This table outlines the user interface locales provided in this release of Red Hat CloudForms.

**Table 1. User Interface Locales**

<table>
<thead>
<tr>
<th>Locale</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>English</td>
</tr>
<tr>
<td>Español</td>
<td>Spanish</td>
</tr>
<tr>
<td>Français</td>
<td>French</td>
</tr>
<tr>
<td>日本語</td>
<td>Japanese</td>
</tr>
<tr>
<td>简体中文</td>
<td>Simplified Chinese</td>
</tr>
</tbody>
</table>

### 7. CHANGES IN THE CORE SET OF RUBY GEMS

Users of Red Hat CloudForms can construct custom automation methods in Ruby to extend the product. Red Hat CloudForms ships with a core set of Ruby gems used by the CloudForms Management Engine (CFME) Rails Application. The Ruby gems in this set are subject to change, and have changed since the previous release. If you are calling gems using Automate that are no longer in the CloudForms Management Engine Appliance, you can install them by using the `gem install` command.

While gems can be imported into automation methods using `require`, it is recommended that the authors of the automation methods clearly document the use of gems either in the core set or a custom set. It is the responsibility of the author of such custom automation to own the life cycle of any gem being referenced in those methods.

You can find a list of all gems included in the appliance in `/var/www/miq/vmdb/log/gem_list.txt`.

To get lists of all gems for different CloudForms Management Engine releases, see the following resource:

- https://access.redhat.com/articles/1534753

#### 7.1. Red Hat CloudForms 4.7.0

This section outlines the changes to the core set of Ruby gems included in this release.

#### 7.1.1. New Ruby Gems in Red Hat CloudForms 4.7.0

The following Ruby gems have been added:

**Table 2. New Ruby Gems in Red Hat CloudForms 4.7.0**

<table>
<thead>
<tr>
<th>Locale</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 7.1.2. Updated Ruby Gems in Red Hat CloudForms 4.7.0

The following Ruby gems have been updated:

#### Table 3. Updated Ruby Gems in Red Hat CloudForms 4.7.0

<table>
<thead>
<tr>
<th>Ruby Gem</th>
<th>Version in Red Hat CloudForms 4.7.0</th>
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</thead>
<tbody>
<tr>
<td>digest-crc</td>
<td>0.4.1</td>
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<tr>
<td>dry-inflector</td>
<td>0.1.2</td>
</tr>
<tr>
<td>fog-kubevirt</td>
<td>0.1.8</td>
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<tr>
<td>graphql</td>
<td>1.8.11</td>
</tr>
<tr>
<td>graphql-batch</td>
<td>0.3.10</td>
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<td>graphql-preload</td>
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</tr>
<tr>
<td>inventory_refresh</td>
<td>0.1.2</td>
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<tr>
<td>json-schema</td>
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<tr>
<td>manageiq-graphql</td>
<td>0.1.0</td>
</tr>
<tr>
<td>manageiq-providers-kubevirt</td>
<td>0.0.1</td>
</tr>
<tr>
<td>manageiq-providers-redfish</td>
<td>0.1.0</td>
</tr>
<tr>
<td>manageiq-v2v</td>
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</tr>
<tr>
<td>promise.rb</td>
<td>0.7.4</td>
</tr>
<tr>
<td>redfish_client</td>
<td>0.4.1</td>
</tr>
<tr>
<td>ruby-kafka</td>
<td>0.7.4</td>
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<tr>
<td>server_sent_events</td>
<td>0.1.2</td>
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<td>Ruby Gem</td>
<td>Version in Red Hat CloudForms 4.7.0</td>
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<tr>
<td>actionview</td>
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<td>activerecord-id_regions</td>
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<td>acts_as_tree</td>
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<td>ansible_tower_client</td>
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<td>autoprefixer-rails</td>
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<tr>
<td>aws-sigv4</td>
<td>1.0.3</td>
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<tr>
<td>concurrent-ruby</td>
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<td>crass</td>
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<td>default_value_for</td>
<td>3.0.5</td>
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<td>domain_name</td>
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<td>dry-core</td>
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<td>dry-types</td>
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<td>fog-google</td>
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<td>Ruby Gem</td>
<td>Version in Red Hat CloudForms 4.7.0</td>
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<td>fog-vcloud-director</td>
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<td>linux_admin</td>
<td>1.2.2</td>
</tr>
<tr>
<td>loofah</td>
<td>2.2.3</td>
</tr>
<tr>
<td>mail</td>
<td>2.7.1</td>
</tr>
<tr>
<td>manageiq-api</td>
<td>4.0.0</td>
</tr>
<tr>
<td>manageiq-api-client</td>
<td>0.3.2</td>
</tr>
<tr>
<td>manageiq-appliance_console</td>
<td>3.3.0</td>
</tr>
<tr>
<td>manageiq-messaging</td>
<td>0.1.2</td>
</tr>
<tr>
<td>Ruby Gem</td>
<td>Version in Red Hat CloudForms 4.7.0</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>manageiq-postgres_ha_admin</td>
<td>3.0.0</td>
</tr>
<tr>
<td>method_source</td>
<td>0.9.2</td>
</tr>
<tr>
<td>mini_mime</td>
<td>1.0.1</td>
</tr>
<tr>
<td>monetize</td>
<td>1.9.0</td>
</tr>
<tr>
<td>money</td>
<td>6.13.1</td>
</tr>
<tr>
<td>money-rails</td>
<td>1.13.0</td>
</tr>
<tr>
<td>nakayoshi_fork</td>
<td>0.0.4</td>
</tr>
<tr>
<td>openscap</td>
<td>0.4.8</td>
</tr>
<tr>
<td>patternfly-sass</td>
<td>3.54.8</td>
</tr>
<tr>
<td>prometheus-api-client</td>
<td>0.6.1</td>
</tr>
<tr>
<td>public_suffix</td>
<td>3.0.3</td>
</tr>
<tr>
<td>rack</td>
<td>2.0.6</td>
</tr>
<tr>
<td>rails</td>
<td>5.0.7.1</td>
</tr>
<tr>
<td>rails-html-sanitizer</td>
<td>1.0.4</td>
</tr>
<tr>
<td>rails-i18n</td>
<td>5.1.2</td>
</tr>
<tr>
<td>railties</td>
<td>5.0.7.1</td>
</tr>
<tr>
<td>rake</td>
<td>12.3.2</td>
</tr>
<tr>
<td>recursive-open-struct</td>
<td>1.1.0</td>
</tr>
<tr>
<td>retrievable</td>
<td>3.1.2</td>
</tr>
<tr>
<td>ripper_ruby_parser</td>
<td>1.2.0</td>
</tr>
<tr>
<td>ruby-dbus</td>
<td>0.15.0</td>
</tr>
<tr>
<td>sexp_processor</td>
<td>4.10.1</td>
</tr>
<tr>
<td>Ruby Gem</td>
<td>Version in Red Hat CloudForms 4.7.0</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>signet</td>
<td>0.11.0</td>
</tr>
<tr>
<td>simple-rss</td>
<td>1.3.3</td>
</tr>
<tr>
<td>stomp</td>
<td>1.4.7</td>
</tr>
<tr>
<td>sys-uname</td>
<td>1.0.4</td>
</tr>
<tr>
<td>temple</td>
<td>0.8.0</td>
</tr>
<tr>
<td>thor</td>
<td>0.20.3</td>
</tr>
<tr>
<td>tilt</td>
<td>2.0.9</td>
</tr>
<tr>
<td>trollop</td>
<td>2.1.3</td>
</tr>
<tr>
<td>tzinfo</td>
<td>1.2.5</td>
</tr>
<tr>
<td>useragent</td>
<td>0.16.10</td>
</tr>
<tr>
<td>uuid</td>
<td>2.3.9</td>
</tr>
<tr>
<td>vmware_web_service</td>
<td>0.3.1</td>
</tr>
<tr>
<td>websocket</td>
<td>1.2.8</td>
</tr>
<tr>
<td>winrm</td>
<td>2.3.0</td>
</tr>
<tr>
<td>winrm-fs</td>
<td>1.3.1</td>
</tr>
<tr>
<td>xclarity_client</td>
<td>0.6.5</td>
</tr>
</tbody>
</table>

7.1.3. Removed Ruby Gems in Red Hat CloudForms 4.7.0

The following Ruby gems have been removed:

**Table 4. Removed Ruby Gems in Red Hat CloudForms 4.7.0**

<table>
<thead>
<tr>
<th>Ruby Gem</th>
</tr>
</thead>
<tbody>
<tr>
<td>inflecto</td>
</tr>
<tr>
<td>lodash-rails</td>
</tr>
<tr>
<td>manageiq-providers-hawkular</td>
</tr>
</tbody>
</table>
Ruby Gem

minitar

miq_v2v_ui

7.2. Red Hat CloudForms 4.7.1

This section outlines the changes to the core set of Ruby gems included in this release.

7.2.1. New Ruby Gems in Red Hat CloudForms 4.7.1

No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.1.

7.2.2. Updated Ruby Gems in Red Hat CloudForms 4.7.1

The following Ruby gems have been updated:

Table 5. Updated Ruby Gems in Red Hat CloudForms 4.7.1

<table>
<thead>
<tr>
<th>Ruby Gem</th>
<th>Version in Red Hat CloudForms 4.7.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ffi-vix_disk_lib</td>
<td>1.0.5</td>
</tr>
<tr>
<td>fog-kubevirt</td>
<td>0.2.1</td>
</tr>
<tr>
<td>fog-openstack</td>
<td>0.1.31</td>
</tr>
<tr>
<td>manageiq-appliance_console</td>
<td>3.3.1</td>
</tr>
<tr>
<td>vmware_web_service</td>
<td>0.3.3</td>
</tr>
</tbody>
</table>

7.2.3. Removed Ruby Gems in Red Hat CloudForms 4.7.1

No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.1.

7.3. Red Hat CloudForms 4.7.2

This section outlines the changes to the core set of Ruby gems included in this release.

7.3.1. New Ruby Gems in Red Hat CloudForms 4.7.2

No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.2.

7.3.2. Updated Ruby Gems in Red Hat CloudForms 4.7.2

The following Ruby gems have been updated:

Table 6. Updated Ruby Gems in Red Hat CloudForms 4.7.2
### Remotely Ruby Gems in Red Hat CloudForms 4.7.2

No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.2.

### Red Hat CloudForms 4.7.3

This section outlines the changes to the core set of Ruby gems included in this release.

#### New Ruby Gems in Red Hat CloudForms 4.7.3

The following Ruby gems have been added:

<table>
<thead>
<tr>
<th>Ruby Gem</th>
<th>Version in Red Hat CloudForms 4.7.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>manageiq-password</td>
<td>0.3.0</td>
</tr>
</tbody>
</table>

#### Updated Ruby Gems in Red Hat CloudForms 4.7.3

The following Ruby gems have been updated:

<table>
<thead>
<tr>
<th>Ruby Gem</th>
<th>Version in Red Hat CloudForms 4.7.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>actioncable</td>
<td>5.0.7.2</td>
</tr>
<tr>
<td>actionmailer</td>
<td>5.0.7.2</td>
</tr>
<tr>
<td>actionpack</td>
<td>5.0.7.2</td>
</tr>
<tr>
<td>actionview</td>
<td>5.0.7.2</td>
</tr>
<tr>
<td>activemodel</td>
<td>5.0.7.2</td>
</tr>
<tr>
<td>activerecord</td>
<td>5.0.7.2</td>
</tr>
<tr>
<td>activesupport</td>
<td>5.0.7.2</td>
</tr>
<tr>
<td>ansible_tower_client</td>
<td>0.19.1</td>
</tr>
</tbody>
</table>
7.4.3. **Removed Ruby Gems in Red Hat CloudForms 4.7.3**
No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.3.

7.5. **Red Hat CloudForms 4.7.4**
This section outlines the changes to the core set of Ruby gems included in this release.

7.5.1. **New Ruby Gems in Red Hat CloudForms 4.7.4**
No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.4.

7.5.2. **Updated Ruby Gems in Red Hat CloudForms 4.7.4**
No Ruby gems were updated in Red Hat CloudForms 4.7.4.

7.5.3. **Removed Ruby Gems in Red Hat CloudForms 4.7.4**
No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.4.

7.6. **Red Hat CloudForms 4.7.5**
This section outlines the changes to the core set of Ruby gems included in this release.

7.6.1. **New Ruby Gems in Red Hat CloudForms 4.7.5**
No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.5.

7.6.2. **Updated Ruby Gems in Red Hat CloudForms 4.7.5**
No Ruby gems were updated in Red Hat CloudForms 4.7.5.

7.6.3. **Removed Ruby Gems in Red Hat CloudForms 4.7.5**
No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.5.

7.7. **Red Hat CloudForms 4.7.6**
This section outlines the changes to the core set of Ruby gems included in this release.

7.7.1. **New Ruby Gems in Red Hat CloudForms 4.7.6**
No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.6.

### Ruby Gem Versions in Red Hat CloudForms 4.7.3

<table>
<thead>
<tr>
<th>Ruby Gem</th>
<th>Version in Red Hat CloudForms 4.7.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>rails</td>
<td>5.0.7.2</td>
</tr>
<tr>
<td>railties</td>
<td>5.0.7.2</td>
</tr>
</tbody>
</table>
7.7.2. Updated Ruby Gems in Red Hat CloudForms 4.7.6

The following Ruby gems have been updated:

Table 9. Updated Ruby Gems in Red Hat CloudForms 4.7.6

<table>
<thead>
<tr>
<th>Ruby Gem</th>
<th>Version in Red Hat CloudForms 4.7.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>ansible_tower_client</td>
<td>0.20.1</td>
</tr>
<tr>
<td>manageiq-smartstate</td>
<td>0.2.18.1</td>
</tr>
</tbody>
</table>

7.7.3. Removed Ruby Gems in Red Hat CloudForms 4.7.6

No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.6.

7.8. Red Hat CloudForms 4.7.7

This section outlines the changes to the core set of Ruby gems included in this release.

7.8.1. New Ruby Gems in Red Hat CloudForms 4.7.7

No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.7.

7.8.2. Updated Ruby Gems in Red Hat CloudForms 4.7.7

No Ruby gems were updated in Red Hat CloudForms 4.7.7.

7.8.3. Removed Ruby Gems in Red Hat CloudForms 4.7.7

No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.7.

7.9. Red Hat CloudForms 4.7.8

This section outlines the changes to the core set of Ruby gems included in this release.

7.9.1. New Ruby Gems in Red Hat CloudForms 4.7.8

No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.8.

7.9.2. Updated Ruby Gems in Red Hat CloudForms 4.7.8

The following Ruby gems have been updated:

Table 10. Updated Ruby Gems in Red Hat CloudForms 4.7.8

<table>
<thead>
<tr>
<th>Ruby Gem</th>
<th>Version in Red Hat CloudForms 4.7.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>linux_admin</td>
<td>1.2.4</td>
</tr>
<tr>
<td>manageiq-appliance_console</td>
<td>3.3.2</td>
</tr>
</tbody>
</table>
7.9.3. Removed Ruby Gems in Red Hat CloudForms 4.7.8
No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.8.

7.10. Red Hat CloudForms 4.7.9
This section outlines the changes to the core set of Ruby gems included in this release.

7.10.1. New Ruby Gems in Red Hat CloudForms 4.7.9
No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.9.

7.10.2. Updated Ruby Gems in Red Hat CloudForms 4.7.9
The following Ruby gems have been updated:

Table 11. Updated Ruby Gems in Red Hat CloudForms 4.7.9

<table>
<thead>
<tr>
<th>Ruby Gem</th>
<th>Version in Red Hat CloudForms 4.7.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>jquery-rails</td>
<td>4.3.5</td>
</tr>
</tbody>
</table>

7.10.3. Removed Ruby Gems in Red Hat CloudForms 4.7.9
No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.9.

7.11. Red Hat CloudForms 4.7.10
This section outlines the changes to the core set of Ruby gems included in this release.

7.11.1. New Ruby Gems in Red Hat CloudForms 4.7.10
No Ruby gems were added to the appliance in Red Hat CloudForms 4.7.10.

7.11.2. Updated Ruby Gems in Red Hat CloudForms 4.7.10
No Ruby gems were updated in Red Hat CloudForms 4.7.10.

7.11.3. Removed Ruby Gems in Red Hat CloudForms 4.7.10
No Ruby gems were removed from the appliance in Red Hat CloudForms 4.7.10.

8. TECHNICAL NOTES
This chapter contains the summary text for bug fixes and enhancements in Red Hat CloudForms errata advisories. The information and procedures in this chapter are relevant to Red Hat CloudForms administrators.

8.1. Red Hat CloudForms 4.7.0

8.1.1. RHSA-2019-0212: Red Hat CloudForms 4.7 Bug Fix and Enhancement Update
The bugs contained in this section are addressed by advisory RHSA-2019:0212. Further information about this advisory is available at https://access.redhat.com/errata/RHSA-2019:0212.html.

8.1.1.1. Appliance

BZ#1535177

Alert emails now include the text displayed in a notification.

8.1.1.2. Appliance

BZ#1636547

This release of Red Hat CloudForms will introduce an alternate Apache module, mod_auth_gssapi, to support Single Sign On (SSO) via external authentication.

The current module, mod_auth_kerb, will continue to be supported for the foreseeable future but at some point will likely be deprecated from Cloudforms.

As mod_auth_gssapi is the direction forward for Apache kerberos SSO support, it is recommended, but not required to migrate from using mod_auth_kerb to mod_auth_gssapi.

8.1.1.3. Performance

BZ#1571223

This release of Red Hat CloudForms implements a UI optimization which improves performance when using Chrome as the browser accessing an appliance.

8.1.1.4. Providers

BZ#1565791

This release of Red Hat CloudForms adds support for sysprep customization templates during virtual machine provisioning.

8.1.1.5. Provisioning

BZ#1553833

This release of Red Hat CloudForms adds dynamic sysprep provisioning parameters for Red Hat virtualization provides. A new Sysprep Specification form has been added under the Customization tab when provisioning virtual machines. This new form allows users to provide sysprep parameters that are passed to the provisioned VM.

Customized templates, located at the bottom of the Customize tab, are required to use this new form.

8.1.1.6. Replication

BZ#1391095
In highly available CloudForms environments, data synchronization to the global region ceases to function after a remote region failover event. This occurs because of an issue with both primary to standby database (HA) replication configured along with region-to-region (remote/global) replication. To work around this, remove and re-create the subscription in the global region web user interface to point to the new primary database server in the remote region. After applying the workaround, replication to the global region will be restored.

8.1.1.7. UI Ops

BZ#1451300

A known issue exists presently where different CloudForms tenants can create catalogs with the same name, and consequently, CloudForms displays multiple catalogs with the same name in the Catalog dropdown menu. This can result in difficulty differentiating catalog items when an administrative user creates a service catalog item, as the user interface does not display the name of the tenant that owns the catalog. This will be fixed in a later release.

BZ#1559957

This release of Red Hat CloudForms corrects an issue whereby VMRC console credentials can be removed from a VMware provider without affecting the ability to save the update to the provider.

8.1.2. RHBA-2019-0111: CloudForms 4.7 images for OpenShift bug fix

The bugs contained in this section are addressed by advisory RHBA-2019:0213. Information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0213.html.

8.1.3. RHBA-2019-0214: CloudForms 4.7 Amazon EC2 SmartState Client Bug Fix Update

The bugs contained in this section are addressed by advisory RHBA-2019:0214. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0214.html.

8.2. Red Hat CloudForms 4.7.1

8.2.1. RHBA-2019-0453: CloudForms 4.7.1 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:0453. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0453.html.

8.2.2. RHBA-2019-0454: CloudForms 4.7.1 images for OpenShift bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:0454. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0454.html.

8.2.3. RHBA-2019-0455: CloudForms 4.7.1 Amazon EC2 SmartState Client bug fix update

The bugs contained in this section are addressed by advisory RHBA-2019:0455. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0455.html.

8.3. Red Hat CloudForms 4.7.2
8.3.1. RHBA-2019-0694: CloudForms 4.7.2 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:40153. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0694.html.

8.3.2. RHBA-2019-0695: CloudForms 4.7.2 images for OpenShift bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:0695. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0695.html.

8.3.3. RHBA-2019-0696: CloudForms 4.7.2 Amazon EC2 SmartState Client bug fix update

The bugs contained in this section are addressed by advisory RHBA-2019:0696. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0696.html.

8.4. Red Hat CloudForms 4.7.3

8.4.1. RHSA-2019-0796: Important: CloudForms 4.7.3 security, bug fix, and enhancement update

The bugs contained in this section are addressed by advisory RHSA-2019:0796. Further information about this advisory is available at https://access.redhat.com/errata/RHSA-2019:0796.html.

8.4.2. RHBA-2019-0797: CloudForms 4.7.3 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:0797. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0797.html.

8.4.3. RHBA-2019-0798: CloudForms 4.7.3 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:0798. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:0798.html.

8.5. Red Hat CloudForms 4.7.4

8.5.1. RHBA-2019-1247: CloudForms 4.7.4 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:1247. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1247.html.

8.5.2. RHBA-2019-1248: CloudForms 4.7.4 images for OpenShift bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:1248. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1248.html.

8.5.3. RHBA-2019-1249: CloudForms 4.7.4 Amazon EC2 SmartState Client bug fix update

The bugs contained in this section are addressed by advisory RHBA-2019:1249. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1249.html.
8.6. Red Hat CloudForms 4.7.5

8.6.1. RHSA-2019-1429: Important: CloudForms 4.7.5 security, bug fix, and enhancement update

The bugs contained in this section are addressed by advisory RHSA-2019:1429. Further information about this advisory is available at https://access.redhat.com/errata/RHSA-2019:1429.html.

8.6.2. RHBA-2019-1430: CloudForms 4.7.5 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:1430. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1430.html.

8.6.3. RHBA-2019-1431: CloudForms 4.7.3 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:1431. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1431.html.

8.7. Red Hat CloudForms 4.7.6

8.7.1. RHBA-2019-1644: CloudForms 4.7.6 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:1644. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1644.html.

8.7.2. RHBA-2019-1645: CloudForms 4.7.6 images for OpenShift bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:1645. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1645.html.

8.7.3. RHBA-2019-1646: CloudForms 4.7.6 Amazon EC2 SmartState Client bug fix update

The bugs contained in this section are addressed by advisory RHBA-2019:1646. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1646.html.

8.8. Red Hat CloudForms 4.7.7

8.8.1. RHSA-2019-1833: Low: CloudForms 4.7.7 security, bug fix, and enhancement update

The bugs contained in this section are addressed by advisory RHSA-2019:1833. Further information about this advisory is available at https://access.redhat.com/errata/RHSA-2019:1833.html.

8.8.2. RHBA-2019-1834: CloudForms 4.7.7 images for OpenShift bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:1834. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1834.html.

8.8.3. RHBA-2019-1835: CloudForms 4.7.7 Amazon EC2 SmartState Client bug fix update
The bugs contained in this section are addressed by advisory RHBA-2019:1835. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:1835.html.

8.9. Red Hat CloudForms 4.7.9

8.9.1. RHSA-2019-2587: Moderate: CloudForms 4.7.9 security, bug fix, and enhancement update

The bugs contained in this section are addressed by advisory RHSA-2019:2587. Further information about this advisory is available at https://access.redhat.com/errata/RHSA-2019:2587.html.

8.9.2. RHBA-2019-2588: CloudForms 4.7.9 images for OpenShift bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:2588. Information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:2588.html.

8.9.3. RHBA-2019-2589: CloudForms 4.7.9 Amazon EC2 SmartState Client bug fix update

The bugs contained in this section are addressed by advisory RHBA-2019:2589. Information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:2589.html.

8.10. Red Hat CloudForms 4.7.10

8.10.1. RHBA-2019-2813: CloudForms 4.7.10 Bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:2813. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:2813.html.

8.10.2. RHBA-2019-2814: CloudForms 4.7.10 images for OpenShift bug fix and enhancement update

The bugs contained in this section are addressed by advisory RHBA-2019:2814. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:2814.html.

8.10.3. RHBA-2019-2815: CloudForms 4.7.10 Amazon EC2 SmartState Client bug fix update

The bugs contained in this section are addressed by advisory RHBA-2019:2815. Further information about this advisory is available at https://access.redhat.com/errata/RHBA-2019:2815.html.

9. CHANGES IN THE DEFAULT ROLES

This section outlines the changes to the default roles included in Red Hat CloudForms with each release.

9.1. Red Hat CloudForms 4.7.0

This section outlines the changes to the default roles included in Red Hat CloudForms in comparison to those included in Red Hat CloudForms 4.6.7. This is the latest version of Red Hat CloudForms 4.6 as of the release of Red Hat CloudForms 4.7.

9.1.1. EvmRole-administrator
Added

- event_streams
- miq_report_superadmin
- miq_request_approval
- physical_rack
- physical_chassis
- physical_switch
- physical_storage

Removed

- compute
- datacenter
- ems_middleware
- middleware_server
- middleware_deployment
- middleware_datasource
- middleware_topology
- usage

9.1.2. EvmRole-approver

Added

- physical_rack_view
- physical_chassis_view
- physical_switch_view
- physical_storage_view

Removed

- usage
- compute

9.1.3. EvmRole-auditor

Added
• physical_rack_view
• physical_chassis_view
• physical_switch_view
• physical_storage_view
• event_streams_view

Removed
• usage
• compute

9.1.4. EvmRole-desktop

Added
• event_streams
• physical_rack
• physical_chassis
• physical_switch
• physical_rack_view
• physical_chassis_view
• physical_switch_view
• physical_storage_view

Removed
• miq_template_publish
• vm_shelve
• vm_shelve_offload

9.1.5. EvmRole-operator

Added
• event_streams_view
• physical_rack_control
• physical_rack_view
• physical_chassis_view
9.1.6. EvmRole-security

Added
- event_stream_view
  - physical_server_view

Removed
- compute
- datastore
- usage

9.1.7. EvmRole-support

Added
- event_stream_view
- physical_rack_view
- physical_chassis_view
- physical_switch_view
• physical_storage_view

**Removed**

• compute
• datastore
• usage

**9.1.8. EvmRole-user**

**Added**

• event_stream_view
• physical_rack_view
• physical_chassis_view
• physical_switch_view
• physical_storage_view
• miq_task_my_ui

**Removed**

• compute
• usage

**9.1.9. EvmRole-user_limited_self_service**

**Removed**

• vm_filter_accord
• vm_shelve
• vm_shelve_offload

**9.1.10. EvmRole-user_self_service**

**Added**

• miq_task_my_ui

**Removed**

• compute
• miq_template_sync
9. Changes in the Default Roles

- vm_filter_accord
- vm_shelve
- vm_shelve_offload
- vm_sync

9.1.11. EvmRole-vm_user

Added
- miq_task_my_ui

Removed
- compute
- miq_template_analyze
- miq_template_sync
- vm_analyze
- vm_shelve
- vm_shelve_offload
- vm_sync

9.1.12. EvmRole-tenant_administrator

Removed
- compute
- datacenter
- usage

9.1.13. EvmRole-tenant_quota_administrator

Removed
- compute
- datacenter
- usage

9.1.14. EvmRole-container_administrator

Removed
• middleware_server_group
• miq_arbitration_settings
• miq_arbitration_rules
• redhat_access_insights_admin
• monitor

9.1.15. EvmRole-container_operator

Removed
• monitor

9.1.16. EvmRole-reader

Added
• physical_rack_view
• physical_chassis_view
• physical_switch_view
• physical_storage_view

Removed
• ems_middleware_view
• middleware_datasource_view
• middleware_deployment_view
• middleware_domain_view
• middleware_messaging_view
• middleware_server_view
• middleware_topology
• redhat_access_insights_overview
• virtual_template_show

9.1.17. EvmRole-physical_infrastructure

Added
• product_feature
9.2. Red Hat CloudForms 4.7.1
There were no changes to the default roles with this release.

9.3. Red Hat CloudForms 4.7.2
There were no changes to the default roles with this release.

9.4. Red Hat CloudForms 4.7.3
There were no changes to the default roles with this release.

9.5. Red Hat CloudForms 4.7.4
There were no changes to the default roles with this release.

9.6. Red Hat CloudForms 4.7.5
There were no changes to the default roles with this release.

9.7. Red Hat CloudForms 4.7.6
There were no changes to the default roles with this release.

9.8. Red Hat CloudForms 4.7.7
There were no changes to the default roles with this release.

9.9. Red Hat CloudForms 4.7.8
There were no changes to the default roles with this release.

9.10. Red Hat CloudForms 4.7.9
There were no changes to the default roles with this release.