



Red Hat CloudForms 4.2

Support Matrix

Supported platforms and features in Red Hat CloudForms 4.2

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Abstract

A summary of the supported platforms and features in Red Hat CloudForms 4.2. 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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1. INTRODUCTION

This release of Red Hat CloudForms is delivered as a virtual appliance that includes the following key components:

- Red Hat Enterprise Linux (RHEL) 7.3
- PostgreSQL 9.4
- Red Hat CloudForms Management Engine (CFME) 5.7

2. SUPPORTED BROWSERS

The following table outlines the browsers that are supported for viewing the Red Hat CloudForms web user interface.

Table 1. Supported Browsers

Browser	Version
Microsoft Internet Explorer	10 and over
Mozilla Firefox	Firefox Extended Support Release
Google Chrome	Chrome for Business. See Section 6, “Remote Console Support” for information on VMRC plug-in support.

3. PLATFORMS THAT CAN HOST RED HAT CLOUDFORMS

The following table outlines the platforms that can host the Red Hat CloudForms appliance.

Table 2. Platforms that can Host Red Hat CloudForms

Platform	Support Status
VMware vCenter Server 5.0 and above	Yes
Red Hat Enterprise Virtualization (RHEV) 3.3 and above [a]	Yes
Red Hat Virtualization (RHV) 4.0 [a]	Yes
Red Hat OpenStack Platform (OSP) 7.0 and above [b]	Yes
Microsoft System Center Virtual Machine Manager (SCVMM) 2012 R2	Yes

Platform	Support Status
Microsoft System Center Virtual Machine Manager (SCVMM) 2016	Yes
Microsoft Azure	Yes
Google Cloud Platform	Yes
Amazon EC2	Yes
Linux Containers	Technology Preview ^[c]
<p>[a] See Red Hat Enterprise Virtualization Life Cycle for product life cycle information.</p> <p>[b] See Red Hat OpenStack Platform Life Cycle for product life cycle information.</p> <p>[c] For more information, see Technology Preview Features Support Scope.</p>	

4. PROVISIONING SUPPORT

Red Hat CloudForms allows you to provision virtual machines, instances, and other resources in the providers that it manages. This section outlines the status of support for provisioning features on providers.

4.1. Infrastructure Providers

The following table outlines the status of support for provisioning on infrastructure providers.

Table 3. Infrastructure Provider Provisioning Support

Feature	Microsoft System Center VMM (SCVMM)	Red Hat Virtualization (RHV) Manager	VMware vCenter
Provision Host	No	No	Yes
Provision VM/Instance using PXE	No	Yes	No
Provision VM/Instance using ISO	No	Yes	No
Clone from VM/Instance to VM/Instance	No	No	Yes
Provision from Template/Image to VM/Instance	Yes	Yes	Yes
Provision from VM/Instance to Template/Image	No	No	Yes

4.2. Cloud Providers

The following table outlines the status of support for provisioning on cloud providers.

Table 4. Cloud Provider Provisioning Support

Feature	Red Hat OpenStack Platform (OSP)	Amazon EC2	Microsoft Azure	Google Compute Engine
Provision VM/Instance using PXE	No	No	No	No
Provision VM/Instance using ISO	No	No	No	No
Clone from VM/Instance to VM/Instance	No	No	No	No
Provision from Template/Image to VM/Instance	Yes	Yes	Yes	Yes
Provision from VM/Instance to Template/Image	No	No	No	No
Orchestration Template Provisioning	Yes	Yes	Yes	No

5. FEATURE SUPPORT

Red Hat CloudForms allows you to perform actions on the providers that it manages, and provides features for interacting with and providing information about those providers. This section outlines the status of support for actions that you can perform on providers, and the CloudForms features that allow you to interact with those providers.



NOTE

Red Hat CloudForms 4.2 adds the ability to run a rake command to retrieve a list of provider features supported across all platforms. Run the following command in your CloudForms appliance to retrieve the supported features in a comma-separated values (.csv) file format, which are displayed on the command-line interface (CLI) by default, however, you can use a pipe to redirect the output to a file.

```
ruby /var/www/miq/vmdb/tools/feature_support_matrix.rb
```


5.1. Infrastructure Providers

The following table outlines the status of support for Red Hat CloudForms features on infrastructure providers.

Table 5. Infrastructure Provider Feature Support

Feature	Microsoft System Center VMM (SCVMM)	Red Hat Virtualization (RHV) Manager	VMware vCenter
Relationship Discovery	Yes	Yes	Yes
VM Drift Comparison	Yes	Yes	Yes
Track VM Genealogy	No	Yes	Yes
Capacity Planning	No	Yes	Yes
Capacity & Utilization	No	Yes	Yes
Capture Infrastructure Event Timelines	No	Yes	Yes
Capture VM/Instance Event Timelines	No	Yes	Yes
Discovery - Provider	No	Yes	Yes
Disk Addition to VM/Instance	No	Yes ^[a]	Yes
Host Drift Comparison	No	Yes	Yes
Optimization - Bottleneck Identification	No	Yes	Yes
Reporting	Yes	Yes	Yes
Right Sizing	No	Yes	Yes
Chargeback	No	Yes	Yes
Host Compliance Enforcement	No	Yes	Yes
Host Policy Enforcement	No	Yes	Yes
Host Power Operations	No	No	Yes
Remote Console VM Access	No	No	Yes
Snapshot Creation, Removal, and Revert	No	Yes ^[a]	Yes

Feature	Microsoft System Center VMM (SCVMM)	Red Hat Virtualization (RHV) Manager	VMware vCenter
VM / Instance Compliance Enforcement	Yes	Yes	Yes
VM / Instance Policy Enforcement	No	Yes	Yes
VM / Instance Power Operations	Yes	Yes	Yes
VM / Instance Retirement	Yes	Yes	Yes
Alerts - Real Time	No	No	Yes
Alerts - VMware Alarms	N/A	N/A	Yes
Alerts - VM Value Changed	No	No	Yes
Alerts - Reconfigured	No	No	Yes
Integrate with Service Catalogs	Yes	Yes	Yes
Virtual Machine Reconfiguration	No	Yes	Yes
VM Migration	No	Yes [a]	Yes
Automation Work Flows	Yes	Yes	Yes
[a] Limited to Red Hat Virtualization 4.0			

5.2. OpenStack Platform Director Infrastructure Providers

The following table outlines the status of support for Red Hat CloudForms features on OpenStack Platform (OSP) director infrastructure providers.

Table 6. OpenStack Platform Director Infrastructure Provider Feature Support

Feature	OpenStack Platform (OSP) Director
Relationship Discovery	Yes
Nodes Inventory	Yes
OpenStack Services Inventory	Yes
Nodes Drift Comparison	Yes

Feature	OpenStack Platform (OSP) Director
Nodes Smart State	Yes
Capacity & Utilization	Yes
Capture Infrastructure Event Timelines	Yes
Node Power Operation	Yes
Capacity Planning	Yes
Reporting	Yes
Add/Remove Node	Yes
Scale Down Node	Yes (Compute nodes only)
Scale Up Nodes	Yes (Compute nodes only)
Nodes Policy Enforcement	Yes
Nodes Evacuate	Yes
OpenStack Upgrade	No

5.3. Cloud Providers

The following table outlines the status of support for Red Hat CloudForms features on cloud providers.

Table 7. Cloud Provider Feature Support

Feature	Red Hat OpenStack Platform (OSP)	Amazon EC2	Microsoft Azure	Google Compute Engine
Relationship Discovery	Yes	Yes	Yes	Yes
VM Drift Comparison	Yes	Yes	Yes	No
Track VM Genealogy	Yes	Yes	Yes	No
Capacity & Utilization	Yes	Yes	Yes	Yes

Feature	Red Hat OpenStack Platform (OSP)	Amazon EC2	Microsoft Azure	Google Compute Engine
Capture Cloud Layer Timelines	Yes	N/A	Yes	No
Capture VM/Instance Event Timelines	Yes	Yes	Yes	Yes
Discovery - Provider	No	Yes	Yes	No
Disk Addition to VM/Instance	Yes	No	No	No
Key Pairs Inventory	Yes	Yes	No	No
Key Pairs Management	Yes	No	No	No
Optimization - Bottleneck Identification	N/A	N/A	No	No
Reporting	Yes	Yes	Yes	Yes
Right Sizing	Yes	No	No	No
Chargeback	Yes	Yes	Yes	Yes
Remote Console VM Access	Yes	No	No	No
Snapshot Creation and Removal	Yes	No	No	No
VM / Instance Compliance Enforcement	Yes	Yes	Yes	No
VM / Instance Policy Enforcement	Yes	Yes	Yes	Yes
VM / Instance Power Operations	Yes	Yes	Yes	Yes

Feature	Red Hat OpenStack Platform (OSP)	Amazon EC2	Microsoft Azure	Google Compute Engine
VM / Instance Retirement	Yes	Yes	Yes	Yes
Alerts - Real Time	Yes	No	No	No
Alerts - VM Value Changed	No	No	No	No
Alerts - Reconfigured	No	No	No	No
Integrate with Service Catalogs	Yes	Yes	Yes	Yes
Virtual Machine Reconfiguration	Yes	No	No	No
Volume Inventory	Yes	No	No	Yes
Volume Creation/Deletion	Yes	No	No	No
VM Migration	Yes	No	No	No
Automation Work Flows	Yes	Yes	No	Yes
Remote Execution		Yes	No	No

5.4. Container Providers

The following table outlines the status of support for Red Hat CloudForms features on containers providers.

Table 8. Container Provider Feature Support

Feature	Red Hat OpenShift Container Platform (OCP)
Relationship Discovery	Yes
Smart State	Yes
Cross linking	Yes

Feature	Red Hat OpenShift Container Platform (OCP)
Capacity & Utilization	Yes
Capture Container Event Timelines	Yes
Compliance Policy	Yes
Track Container Image Relationship	Yes
Discovery - Provider	No
Optimization - Bottleneck Identification	No
OpenSCAP Execution and Report	Yes
Reporting	Yes
Right Sizing	No
Chargeback	Yes (by project)
Container Compliance Enforcement	Yes
Container Policy Enforcement	Yes
Container Power Operations	No
Container Retirement	No
Alerts - Real Time	No
Alerts - VM Value Changed	Yes
Alerts - Reconfigured	No
Integrate with Service Catalogs	No
Container Reconfiguration	No
Container Migration	No
Automation Work Flows	Partial
OpenShift Template Inventory	Yes
Cockpit Remote Console to Node	Yes

5.5. Network Providers

This section outlines the status of support for Red Hat CloudForms features on network providers.

Table 9. Network Provider Feature Support

Feature	Red Hat OpenStack Platform (OSP)	Amazon EC2	Microsoft Azure	Google Compute Engine
Network Manager Relationships	Yes	Yes	Yes	Yes
Relationship Discovery	Yes	Yes	Yes	Yes
Cloud Network Inventory	Yes	Yes	Yes	Yes
Cloud Subnet Inventory	Yes	Yes	Yes	Yes
Network Router Inventory	Yes	No	No	Yes
Security Groups	Yes	Yes	Yes	Yes
Floating IP Addresses	Yes	Yes	Yes	Yes
Network Ports	Yes	Yes	Yes	Yes
Load Balancer Inventory	No	Yes	Yes	Yes
Create/Update/Delete Network	Yes	No	No	No
Create/Update/Delete Subnet	Yes	No	No	No
Create/Update/Delete Routers	Yes	No	No	No

5.6. Configuration Management Providers

The following table outlines the status of support for Red Hat CloudForms features on configuration management providers.

Table 10. Configuration Management Provider Feature Support

Feature	Ansible Tower
Groups Inventory	Yes
Configured Systems Inventory	Yes
Job Template Inventory	Yes
Integrate with Service Catalog	Yes
Automate Workflows	Yes

**NOTE**

- Red Hat CloudForms 4.2 supports Ansible Tower 2.4 as a configuration management provider.
- Red Hat CloudForms versions 4.1.1 and above also support Ansible Tower 3.0.

6. REMOTE CONSOLE SUPPORT

Red Hat CloudForms allows you to access the console of virtual machines and instances on the providers it manages using HTML5-based VNC consoles. This section outlines the status of support for remote consoles in Red Hat CloudForms.

**NOTE**

For VMware vSphere providers, Red Hat CloudForms supports the versions of VMRC that VMware supports. However, VMware does not support VMRC for Mac operating systems. See [VMware VMRC documentation](#) for more information.

For all other providers, Red Hat CloudForms supports HTML5-based VNC consoles. The following have been tested with CloudForms Management Engine:

- Windows: UltraVNC 1.1.8.8 - <http://www.uvnc.com/>
- Linux/Mac: SSVNC 1.0.29 - <http://www.karlrunge.com/x11vnc/ssvnc.html>. At the time of this writing, this is the only client that supports the VNC repeater configuration.

See [Red Hat CloudForms Management Engine VNC Support](#).

**NOTE**

As of 1 September 2015, new versions of Chrome no longer support VMRC consoles. VMRC requires NPAPI plug-in support. Chrome removed support for NPAPI plug-ins in version 45.0.2454, which was released on this date.

6.1. Providers

The following table outlines the status of support for remote consoles on providers.

Table 11. Provider Remote Console Support

Provider	Status
VMware vSphere 5.1	Yes
VMware vSphere 5.5	Yes
VMware vSphere 6	Yes
Red Hat Enterprise Virtualization (RHEV) 3.3	No
Red Hat Enterprise Virtualization 3.4	No
Red Hat Enterprise Virtualization 3.5	No
Red Hat Enterprise Virtualization 3.6	Yes
Red Hat Virtualization (RHV) 4.0	Yes ^[a]
Red Hat OpenStack 4	No
Red Hat Enterprise Linux OpenStack Platform (OSP) 5	No
Red Hat Enterprise Linux OpenStack Platform 6	No
Red Hat Enterprise Linux OpenStack Platform 7	Yes
Red Hat Enterprise Linux OpenStack Platform 8	Yes
Red Hat Enterprise Linux OpenStack Platform 9	Yes
Google Compute Engine	No
Amazon EC2	No
Microsoft SCVMM	No
[a] Supported in Red Hat CloudForms 4.1 and above only.	

6.2. Browsers

This section outlines the status of support for accessing remote consoles for virtual machines and instances on major operating system and web browser combinations.

Table 12. Browser Remote Console Support

Operating System	Chrome	Firefox	Internet Explorer 11	Internet Explorer 10
Red Hat Enterprise Linux (RHEL) 6	Yes	Yes	N/A	N/A
Red Hat Enterprise Linux (RHEL) 7	Yes	Yes	N/A	N/A
Fedora 21	Yes	Yes	N/A	N/A
Fedora 22	Yes	Yes	N/A	N/A
Fedora 23	Yes	Yes	N/A	N/A
Windows 7	Yes	Yes	Yes	Yes

7. SMART STATE ANALYSIS SUPPORT

Red Hat CloudForms allows you to analyze virtual machines and instances on the providers it manages to collect information about the base operating system on those virtual machines or instances, their virtual hardware, installed applications, and other details. This operation is known as SmartState analysis. This section outlines the status of support for this SmartState analysis of virtual machines and instances by guest operating system, file system, and by provider.

7.1. Guest Operating System

The following table outlines support for SmartState analysis of virtual machines by guest operating system.

Table 13. Guest Operating System SmartState Analysis Support

Guest Operating System	Status
Windows 2000	Yes
Windows XP	Yes
Windows Server 2003	Yes
Windows Vista	Yes
Windows 2008	Yes
Windows 7	Yes
Red Hat Enterprise Linux (RHEL) 7 and above	Yes
Fedora	Yes

Guest Operating System	Status
Debian and Debian-Derived	Yes
Ubuntu and Ubuntu Derived	Yes
Suse and Open Suse Derived	Yes

7.2. File Systems

The following table outlines support for SmartState analysis of virtual machines by guest operating file system.

Table 14. File System SmartState Analysis Support

File System	Status
Ext3	Yes
Ext4	Yes
FAT32	Yes
ISO9660 (CDFS)	Yes
NTFS	Yes
XFS	Yes

7.3. Infrastructure Providers

The following table outlines support for SmartState analysis of virtual machines by infrastructure provider.

Table 15. Infrastructure Provider SmartState Analysis Support

Infrastructure Provider	Status
Red Hat Enterprise Virtualization (RHEV) 3.2 and below (prior to 3.3)	Technical Guidance [a]
Red Hat Enterprise Virtualization 3.3	Technical Guidance [a]
Red Hat Enterprise Virtualization 3.4	Yes
Red Hat Enterprise Virtualization 3.5	Yes
Red Hat Enterprise Virtualization 3.6	Yes

Infrastructure Provider	Status
Red Hat Virtualization (RHV) 4.0	Yes ^[b]
VMware vCenter 4.x	Technical Guidance ^[a]
VMware vCenter 5.0	Yes
VMware vCenter 5.1	Yes
VMware vCenter 5.5	Yes
VMware vCenter 6.0 ^[c]	Yes
Microsoft System Center Virtual Machine Manager (SCVMM) 2012 R2	Yes
<p>^[a] Technical Guidance, if available, is provided from the end of the General Support phase and lasts for a fixed duration. This phase is intended for usage by customers operating in stable environments with systems that are operating under reasonably stable loads.</p> <p>^[b] Supported in Red Hat CloudForms 4.1 and above only.</p> <p>^[c] To install the VMware VDDK 6.0 so that SmartState Analysis is successful, see Installing the VMware 6.0 VDDK on a CFME Appliance. Alternatively, you can use VMware VDDK 5.5.</p>	

**NOTE**

For Microsoft SCVMM integration, Microsoft PowerShell version 4 is required.

7.4. Cloud Providers

The following table outlines support for SmartState analysis of virtual machines by cloud provider.

Table 16. Cloud Provider SmartState Analysis Support

Cloud Provider	Status
Red Hat OpenStack Platform (OSP)	Yes
Amazon EC2	No
Google Compute Engine	No
Microsoft Azure	Yes

**NOTE**

For virtual machine instances running on Red Hat OpenStack Platform, CloudForms currently does not support SmartState analysis if an instance is booted from OpenStack Block Storage (Cinder volumes); it can only be performed when an instance is booted from an image.