Red Hat CloudForms 4.6

Support Matrix

Supported platforms and features in Red Hat CloudForms 4.6

Last Updated: 2018-09-24

Red Hat CloudForms 4.6 Support Matrix

Supported platforms and features in Red Hat CloudForms 4.6

Red Hat CloudForms Documentation Team
cloudforms-docs@redhat.com

Legal Notice

Abstract

A summary of the supported platforms and features in Red Hat CloudForms 4.6. 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.

Table of Contents

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) 7.4
- Rails 5.0.6
- Ruby 2.3.1
- PostgreSQL 9.5.9
- Red Hat CloudForms Management Engine (CFME) 5.9
- Apache 2.4.6

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	11 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. SUPPORTED PLATFORMS FOR RED HAT CLOUDFORMS

The following table lists platforms that can both host or be managed by the Red Hat CloudForms appliance.

Table 2. Supported Platforms

Platform	Supported as a Host	Supported for Management
Amazon EC2 [a]	Yes	Yes
Google Compute Engine	Yes	Yes
Microsoft Azure	Yes	Yes

Platform	Supported as a Host	Supported for Management
Microsoft System Center Virtual Machine Manager (SCVMM) 2012 R2	Yes	Yes
Microsoft System Center Virtual Machine Manager (SCVMM) 2016	Yes	Yes
OpenShift Container Platform (OCP) 3.5	No	Yes
OpenShift Container Platform (OCP) 3.6	No	Yes
OpenShift Container Platform (OCP) 3.7	Yes	Yes
OpenShift Container Platform (OCP) 3.9	Yes	Yes
Red Hat OpenStack Platform (OSP) 10 [b]	Yes	Yes
Red Hat OpenStack Platform (OSP) 11 [b]	No	No
Red Hat OpenStack Platform (OSP) 12 [b]	Yes	Yes
Red Hat OpenStack Platform (OSP) 13 [b]	Yes	Yes
Red Hat Virtualization (RHV) 4.0 [c]	Yes	Yes
Red Hat Virtualization (RHV) 4.1 [c]	Yes	Yes
Red Hat Virtualization (RHV) 4.2 [c] [d]	Yes	Yes
VMware vSphere 5.5	Yes	Yes
VMware vSphere 6.0	Yes	Yes
VMware vSphere 6.5	Yes	Yes

[a] As the pace of change in public cloud features is high, constantly changing and evolving, the compatibility for CloudForms is as of the time of the GA of the product. Best effort basis during errata cycle for public cloud vendor introduced breaking changes(intended or unintended) to existing functionality. Any other changes or additions would be considered as a Request For Enhancement(RFE) which is evaluated for potential inclusion in future releases. RFE can be requested via your standard support mechanisms.

[b] See Red Hat OpenStack Platform Life Cycle for product life cycle information.

[c] See Red Hat Enterprise Virtualization Life Cycle for product life cycle information.

[d] Only supported on Red Hat CloudForms 4.6.2 and above.

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 [a]	No [a]	No [a]
Provision VM/Instance using PXE	No [a]	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

[a] Available when using Red Hat Satellite with CloudForms.

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

Feature	Red Hat OpenStack Platform (OSP)	Amazon EC2	Microsoft Azure	Google Compute Engine
Clone from VM/Instance to VM/Instance	No	No	No	No
Provision from Template/Image to VM/Instance	Yes	Yes	Yes	Yes
Provision from Image Snapshot to VM/Instance	Yes	No	No	No
Provision from Volume to VM/Instance	Yes	No	No	No
Provision from Volume Snapshot to VM/Instance	Yes	No	No	No
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

You can 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.

5.1.1. Red Hat Virtualization

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

Table 5. Red Hat Virtualization Provider Feature Support

Feature	RHV 4.0	RHV 4.1
Relationship Discovery	Yes	Yes
VM Drift Comparison	Yes	Yes
Track VM Genealogy	Yes	Yes
Capacity & Utilization	Yes	Yes
Capture Timelines	Yes	Yes
Capture VM Event Timelines	Yes	Yes
Discovery - Provider	Yes	Yes
Disk Addition to VM	Yes	Yes
Key Pairs Inventory	N/A	N/A
Key Pairs Management	N/A	N/A
Optimization - Bottleneck Identification	Yes	Yes
Reporting	Yes	Yes
Right Sizing	Yes	Yes
Chargeback	Yes	Yes
Remote Console VM Access	Yes [a]	Yes [a]
Snapshot Creation and Removal	Yes	Yes
VM Compliance Enforcement	Yes	Yes
VM Policy Enforcement	Yes	Yes

Feature	RHV 4.0	RHV 4.1
VM Power Operations	Yes	Yes
VM Retirement	Yes	Yes
Alerts - Real Time	No	No
Alerts - VM Value Changed	No	No
Alerts - Reconfigured	No	No
Integrate with Service Catalogs	Yes	Yes
Virtual Machine Reconfiguration	Yes	Yes
Volume Inventory	No	No
Volume Creation/Deletion	No	No
VM Migration	Yes	Yes
Automation Work Flows	Yes	Yes
Provider TLS	Yes	Yes
Provision VM using PXE	Yes	Yes
Provision VM using ISO	Yes	Yes
Provision from Template/Image to VM	Yes	Yes
Provision from VM to Template/Image	Yes	Yes
Host Power Operations	No	No
Provision Host	No	No
Clone from VM to VM	No	No
Cloud-Init	Yes	Yes
Customize Windows Templates with Sysprep during provision	No	No
OVN Provider	Yes	Yes [b]

Feature	RHV 4.0	RHV 4.1
Transfrom single VM from RHV to VMWare	Yes	Yes

[a] On some operating system and browser combinations

[b] Technology Preview

5.1.2. VMware vSphere

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

Table 6. VMware vSphere Provider Feature Support

Feature	vSphere 5.5	vSphere 6.0	vSphere 6.5
Relationship Discovery	Yes	Yes	Yes
VM Drift Comparison	Yes	Yes	Yes
Track VM Genealogy	Yes	Yes	Yes
Capacity & Utilization	Yes	Yes	Yes
Capture Cloud Layer Timelines	Yes	Yes	Yes
Capture VM Event Timelines	Yes	Yes	Yes
Discovery - Provider	Yes	Yes	Yes
Disk Addition to VM	Yes	Yes	Yes
Key Pairs Inventory	N/A	N/A	N/A
Key Pairs Management	N/A	N/A	N/A
Optimization - Bottleneck Identification	Yes	Yes	Yes
Reporting	Yes	Yes	Yes
Right Sizing	Yes	Yes	Yes
Chargeback	Yes	Yes	Yes
Remote Console VM Access	Yes [a]	Yes [a]	Yes [a]

Feature	vSphere 5.5	vSphere 6.0	vSphere 6.5
Snapshot Creation and Removal	Yes	Yes	Yes
VM Compliance Enforcement	Yes	Yes	Yes
VM Policy Enforcement	Yes	Yes	Yes
VM Power Operations	Yes	Yes	Yes
VM Retirement	Yes	Yes	Yes
Alerts - Real Time	Yes	Yes	Yes
Alerts - VM Value Changed	Yes	Yes	Yes
Alerts - Reconfigured	Yes	Yes	Yes
Integrate with Service Catalogs	Yes	Yes	Yes
Virtual Machine Reconfiguration	Yes	Yes	Yes
Volume Inventory	No	No	No
Volume Creation/Deletion	No	No	No
VM Migration	Yes	Yes	Yes
Automation Work Flows	Yes	Yes	Yes
Provider TLS			
Provision VM using PXE	Yes	Yes	Yes
Provision VM using ISO	No	No	No
Provision from Template/Image to VM	Yes	Yes	Yes
Provision from VM to Template/Image	Yes	Yes	Yes
Host Power Operations	Yes	Yes	Yes
Provision Host			
Clone from VM to VM	Yes	Yes	Yes
Cloud-Init	Yes	Yes	Yes

Feature	vSphere 5.5	vSphere 6.0	vSphere 6.5
Customize Windows Templates with Sysprep during provision	No	No	No
OVN Provider	No	No	No

[a] On some operating system and browser combinations

5.1.3. Microsoft SCVMM

The following table outlines the status of support for Microsoft SCVMM infrastructure providers.

Table 7. Microsoft SCVMM Provider Feature Support

Feature	SCVMM 2012 R2	SCVMM 2016
Relationship Discovery	Yes	Yes
VM Drift Comparison	Yes	Yes
Track VM Genealogy	No	No
Capacity & Utilization	No	No
Capture Cloud Layer Timelines	No	No
Capture VM Event Timelines	No	No
Discovery - Provider	Yes	Yes
Disk Addition to VM	No	No
Key Pairs Inventory	N/A	N/A
Key Pairs Management	N/A	N/A
Optimization - Bottleneck Identification	Yes	Yes
Reporting	Yes	Yes
Right Sizing	Yes	Yes
Chargeback	Yes	Yes
Remote Console VM Access	Yes [a]	Yes [a]

Feature	SCVMM 2012 R2	SCVMM 2016
Snapshot Creation and Removal	No	No
VM Compliance Enforcement	Yes	Yes
VM Policy Enforcement	Yes	Yes
VM Power Operations	Yes	Yes
VM Retirement	Yes	Yes
Alerts - Real Time	No	No
Alerts - VM Value Changed	No	No
Alerts - Reconfigured	Yes	Yes
Integrate with Service Catalogs	Yes	Yes
Virtual Machine Reconfiguration	No	No
Volume Inventory	No	No
Volume Creation/Deletion	No	No
VM Migration	No	No
Automation Work Flows	No	No
Provider TLS		
Provision VM using PXE	No	No
Provision VM using ISO	No	No
Provision from Template/Image to VM	Yes	Yes
Provision from VM to Template/Image	No	No
Host Power Operations	Yes	Yes
Provision Host	No	No
Clone from VM to VM	No	No

Feature	SCVMM 2012 R2	SCVMM 2016
Cloud-Init	No	No
Sysprep Windows Templates	No	No
OVN Provider	No	No
Transfrom single VM from RHV to VMWare	No	No

[a] On some operating system and browser combinations

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 8. 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
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)

Feature	OpenStack Platform (OSP) Director
Scale Up Nodes	Yes (Compute nodes only)
Nodes Policy Enforcement	Yes
Nodes Evacuate	Yes
OpenStack Upgrade	No

5.3. Cloud Providers

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

5.3.1. Red Hat OpenStack Platform

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

Table 9. Red Hat OpenStack Platform Feature Support

Feature	OSP 10	OSP 11	OSP 12	OSP 13
Relationship Discovery	Yes	No	Yes	Yes
Instance Drift Comparison	Yes	No	Yes	Yes
Track Instance Genealogy	Yes	No	Yes	Yes
Capacity & Utilization	Yes	No	Yes	Yes
Capture Cloud Layer Timelines	Yes	No	Yes	Yes
Capture Instance Event Timelines	Yes	No	Yes	Yes
Discovery - Provider	No	No	No	No
Disk Addition to Instance	Yes	No	Yes	Yes
Key Pairs Inventory	Yes	No	Yes	Yes
Key Pairs Management	Yes	No	Yes	Yes
Reporting	Yes	No	Yes	Yes
Right Sizing	Yes	No	Yes	Yes

Feature	OSP 10	OSP 11	OSP 12	OSP 13
Chargeback	Yes	No	Yes	Yes
Remote Console Instance Access	Yes	No	Yes	Yes
Snapshot Creation and Removal	Yes	No	Yes	Yes
Instance Compliance Enforcement	Yes	No	Yes	Yes
Instance Policy Enforcement	Yes	No	Yes	Yes
Instance Power Operations	Yes	No	Yes	Yes
Instance Retirement	Yes	No	Yes	Yes
Alerts - Real Time	Yes	No	Yes	Yes
Alerts - Instance Value Changed	No	No	No	No
Alerts - Reconfigured	No	No	No	No
Integrate with Service Catalogs	Yes	No	Yes	Yes
Virtual Machine Reconfiguration	Yes	No	Yes	Yes
Volume Inventory	Yes	No	Yes	Yes
Volume Creation/Deletion	Yes	No	Yes	Yes
Instance Migration	Yes	No	Yes	Yes
Automation Work Flows	Yes	No	Yes	Yes
Network Manager - CRUD Actions Supported		No		
Storage Manager		No		Yes
Provision Instance using PXE	No	No	No	No
Provision Instance using ISO	No	No	No	No
Provision from Template/Image to Instance	Yes	No	Yes	Yes
Provision from Image Snapshot to Instance	Yes	No	Yes	Yes

Feature	OSP 10	OSP 11	OSP 12	OSP 13
Provision from Volume to Instance	Yes	No	Yes	Yes
Provision from Volume Snapshot to Instance	Yes	No	Yes	Yes
Provision from Instance to Template/Image				
Clone from Instance to Instance	No	No	No	No
Cloud-Init	Yes	No	Yes	Yes
Sysprep Windows Templates	Yes	No	Yes	Yes

5.3.2. Amazon EC2

The following table outlines the status of support for Red Hat CloudForms features on Amazon EC2 cloud providers.

Table 10. Amazon EC2 Feature Support

Feature	Amazon EC2
Relationship Discovery	Yes
Instance Drift Comparison	Yes
Track Instance Genealogy	Yes
Capacity & Utilization	Yes
Capture Timelines	Yes
Capture Instance Event Timelines	Yes
Discovery - Provider	No
Disk Addition to Instance	No
Key Pairs Inventory	Yes
Key Pairs Management	No
Optimization - Bottleneck Identification	Yes
Reporting	Yes

Feature	Amazon EC2
Right Sizing	No
Chargeback	Yes
Remote Console Instance Access	No
Snapshot Creation and Removal	Yes
Instance Compliance Enforcement	Yes
Instance Policy Enforcement	Yes
Instance Power Operations	Yes
Instance Retirement	Yes
Alerts - Real Time	No
Alerts - Instance Value Changed	No
Alerts - Reconfigured	No
Integrate with Service Catalogs	Yes
Virtual Machine Reconfiguration	No
Volume Inventory	Yes
Volume Creation/Deletion	Yes
Instance Migration	No
Automation Work Flows	Yes
Network Manager - Read Only	Yes
Network Manager - CRUD Actions Supported	No
Storage Manager	Yes
Provider TLS	N/A
Provision Instance using PXE	No

Feature	Amazon EC2
Provision Instance using ISO	No
Provision from Template/Image to Instance	Yes
Provision from Instance to Template/Image	
Host Power Operations	N/A
Provision Host	N/A
Clone from Instance to Instance	No
Cloud-Init	Yes
Sysprep Windows Templates	Yes

5.3.3. Microsoft Azure

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

Table 11. Microsoft Azure Feature Support

Feature	Microsoft Azure
Relationship Discovery	Yes
Instance Drift Comparison	Yes
Track Instance Genealogy	Yes
Capacity & Utilization	Yes
Capture Timelines	Yes
Capture Instance Event Timelines	Yes
Discovery - Provider	No
Disk Addition to Instance	No
Key Pairs Inventory	No
Key Pairs Management	No

Feature	Microsoft Azure
Optimization - Bottleneck Identification	Yes
Reporting	Yes
Right Sizing	No
Chargeback	Yes
Remote Console Instance Access	No
Snapshot Creation and Removal	No
Instance Compliance Enforcement	Yes
Instance Policy Enforcement	Yes
Instance Power Operations	Yes
Instance Retirement	Yes
Alerts - Real Time	No
Alerts - Instance Value Changed	No
Alerts - Reconfigured	No
Integrate with Service Catalogs	Yes
Virtual Machine Reconfiguration	No
Volume Inventory	No
Volume Creation/Deletion	No
Instance Migration	No
Automation Work Flows	No
Network Manager - Read Only	Yes
Network Manager - CRUD Actions Supported	No
Storage Manager	

Feature	Microsoft Azure
Provider TLS	N/A
Provision Instance using PXE	No
Provision Instance using ISO	No
Provision from Template/Image to Instance	Yes
Provision from Instance to Template/Image	
Host Power Operations	N/A
Provision Host	N/A
Clone from Instance to Instance	No
Cloud-Init	Yes
Sysprep Windows Templates	Yes

5.3.4. Google Compute Engine

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

Table 12. Google Compute Engine Feature Support

Feature	Google Compute Engine
Relationship Discovery	Yes
Instance Drift Comparison	No
Track Instance Genealogy	Yes
Capacity & Utilization	Yes
Capture Timelines	No
Capture Instance Event Timelines	No
Discovery - Provider	No
Disk Addition to Instance	No

Feature	Google Compute Engine
Key Pairs Inventory	No
Key Pairs Management	No
Optimization - Bottleneck Identification	Yes
Reporting	Yes
Right Sizing	No
Chargeback	Yes
Remote Console Instance Access	No
Snapshot Creation and Removal	No
Instance Compliance Enforcement	No
Instance Policy Enforcement	Yes
Instance Power Operations	Yes
Instance Retirement	Yes
Alerts - Real Time	No
Alerts - Instance Value Changed	No
Alerts - Reconfigured	No
Integrate with Service Catalogs	Yes
Virtual Machine Reconfiguration	No
Volume Inventory	Yes
Volume Creation/Deletion	No
Instance Migration	No
Automation Work Flows	Yes
Network Manager - Read Only	Yes
Network Manager - CRUD Actions Supported	No

Feature	Google Compute Engine
Storage Manager	
Provider TLS	N/A
Provision Instance using PXE	No
Provision Instance using ISO	No
Provision from Template/Image to Instance	Yes
Provision from Instance to Template/Image	
Host Power Operations	N/A
Provision Host	N/A
Clone from Instance to Instance	No

5.4. Container Providers

The following section outlines the status of support for Red Hat CloudForms features on OpenShift Container Platform container providers.

Table 13. OpenShift Container Platform Provider Feature Support

Feature	OCP 3.5	OCP 3.6	OCP 3.7	OCP 3.9
Relationship Discovery	Yes	Yes	Yes	Yes
Track Container Image Relationship	Yes	Yes	Yes	Yes
Capacity & Utilization	Yes	Yes	Yes	Yes
Capture Container Event Timelines	Yes	Yes	Yes	Yes
Discovery - Provider	No	No	No	No
Reporting	Yes	Yes	Yes	Yes
Chargeback	Yes	Yes	Yes	Yes
Remote Cockpit Node Access	Yes	Yes	Yes	Yes
Container Node Compliance Enforcement	Yes	Yes	Yes	Yes

Feature	OCP 3.5	OCP 3.6	OCP 3.7	OCP 3.9
Container Node Policy Enforcement	Yes	Yes	Yes	Yes
Replicator Compliance Enforcement	Yes	Yes	Yes	Yes
Replicator Policy Enforcement	Yes	Yes	Yes	Yes
Pod Compliance Enforcement	Yes	Yes	Yes	Yes
Pod Policy Enforcement	Yes	Yes	Yes	Yes
Image Compliance Enforcement	Yes	Yes	Yes	Yes
Image Policy Enforcement	Yes	Yes	Yes	Yes
Template Provisioning	Yes	Yes	Yes	Yes
Smart State	Yes	Yes	Yes	Yes
OpenSCAP Execution and Report	Yes	Yes	Yes	Yes
Cross Linking Underlying Infrastructure	Yes	Yes	Yes	Yes

5.5. Network Providers

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

Table 14. 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

Feature	Red Hat OpenStack Platform (OSP)	Amazon EC2	Microsoft Azure	Google Compute Engine
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 15. 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 4.6 supports Ansible Tower 2.4 as a configuration management provider.
- Red Hat CloudForms versions 4.2.1 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 managers 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. Support on Red Hat Enterprise Linux by Providers and Browsers

The following tables outline the status of support for remote consoles on providers for Red Hat Enterprise Linux 6 and Red Hat Enterprise Linux 7.

Table 16. Remote Console Support on Red Hat Enterprise Linux 6

Provider	Connection Type	Support	Chrome	Firefox
VMware vSphere 5.5	VNC	Yes	No	Yes
	VMRC		No	Yes
VMware vSphere 6.0	VNC	Yes	No	Yes
	VMRC		No	Yes
	WebMKS		No	Yes
VMware vSphere 6.5	VMRC	Yes	No	Yes
	WebMKS		No	Yes

Provider	Connection Type	Support	Chrome	Firefox
Red Hat Virtualization (RHV) 4.1	SPICE	Yes	No	No
Red Hat OpenStack Platform 9	VNC	Yes	No	No
Red Hat OpenStack Platform 10	VNC	Yes	No	No
Red Hat OpenStack Platform 11	VNC	No	No	No
Google Compute Engine	N/A	No	N/A	N/A
Amazon EC2	N/A	No	N/A	N/A
Microsoft SCVMM	N/A	No	N/A	N/A

Table 17. Remote Console Support on Red Hat Enterprise Linux 7

Provider	Connection Type	Support	Chrome	Firefox
VMware vSphere 5.5	VNC	Yes	Yes	Yes
	VMRC		Yes	Yes
VMware vSphere 6.0	VNC	Yes	Yes	Yes
	VMRC		Yes	Yes
	WebMKS		Yes	Yes
VMware vSphere 6.5	VMRC	Yes	Yes	Yes
	WebMKS		Yes	Yes
Red Hat Virtualization (RHV) 4.1	SPICE	Yes	No	No
Red Hat OpenStack Platform 9	VNC	Yes	No	No
Red Hat OpenStack Platform 10	VNC	Yes	No	No
Red Hat OpenStack Platform 11	VNC	No	No	No
Google Compute Engine	N/A	No	N/A	N/A

Provider	Connection Type	Support	Chrome	Firefox
Amazon EC2	N/A	No	N/A	N/A
Microsoft SCVMM	N/A	No	N/A	N/A

6.2. Support on Fedora by Providers and Browsers

The following tables outline the status of support for remote consoles on providers for Fedora 25, 26, and 27.

Table 18. Remote Console Support on Fedora 25

Provider	Connection Type	Support	Chrome	Firefox
VMware vSphere 5.5	VNC	Yes	Yes	Yes
	VMRC		Yes	Yes
VMware vSphere 6.0	VNC	Yes	Yes	Yes
	VMRC		Yes	Yes
	WebMKS		Yes	Yes
VMware vSphere 6.5	VMRC	Yes	Yes	Yes
	WebMKS		Yes	Yes
Red Hat Virtualization (RHV) 4.1	SPICE	Yes	No	No
Red Hat OpenStack Platform 9	VNC	Yes	No	No
Red Hat OpenStack Platform 10	VNC	Yes	No	No
Red Hat OpenStack Platform 11	VNC	No	No	No
Google Compute Engine	N/A	No	N/A	N/A
Amazon EC2	N/A	No	N/A	N/A
Microsoft SCVMM	N/A	No	N/A	N/A

Table 19. Remote Console Support on Fedora 26

Provider	Connection Type	Support	Chrome	Firefox
VMware vSphere 5.5	VNC	Yes	Yes	Yes
	VMRC		Yes	Yes
VMware vSphere 6.0	VNC	Yes	Yes	Yes
	VMRC		Yes	Yes
	WebMKS		Yes	Yes
VMware vSphere 6.5	VMRC	Yes	Yes	Yes
	WebMKS		Yes	Yes
Red Hat Virtualization (RHV) 4.1	SPICE	Yes	No	No
Red Hat OpenStack Platform 9	VNC	Yes	No	No
Red Hat OpenStack Platform 10	VNC	Yes	No	No
Red Hat OpenStack Platform 11	VNC	No	No	No
Google Compute Engine	N/A	No	N/A	N/A
Amazon EC2	N/A	No	N/A	N/A
Microsoft SCVMM	N/A	No	N/A	N/A

Table 20. Remote Console Support on Fedora 27

Provider	Connection Type	Support	Chrome	Firefox
VMware vSphere 5.5	VNC	Yes	Yes	Yes
	VMRC		Yes	Yes
VMware vSphere 6.0	VNC	Yes	Yes	Yes
	VMRC		Yes	Yes
	WebMKS		Yes	Yes
VMware vSphere 6.5	VMRC	Yes	Yes	Yes

Provider	Connection Type	Support	Chrome	Firefox
	WebMKS		Yes	Yes
Red Hat Virtualization (RHV) 4.1	SPICE	Yes	No	No
Red Hat OpenStack Platform 9	VNC	Yes	No	No
Red Hat OpenStack Platform 10	VNC	Yes	No	No
Red Hat OpenStack Platform 11	VNC	No	No	No
Google Compute Engine	N/A	No	N/A	N/A
Amazon EC2	N/A	No	N/A	N/A
Microsoft SCVMM	N/A	No	N/A	N/A

6.3. Support on Windows by Providers and Browsers

The following tables outline the status of support for remote consoles on providers for Windows 7, 10, and 2012 Server.

Table 21. Remote Console Support on Windows 7

Provider	Connection Type	Support	Chrome	Firefox	IE 11	IE 10
VMware vSphere 5.5	VNC	Yes	Yes	Yes	Yes	No
	VMRC		Yes	Yes	Yes	No
VMware vSphere 6.0	VNC	Yes	Yes	Yes	Yes	No
	VMRC		Yes	Yes	Yes	No
	WebMKS		Yes	Yes	Yes	No
VMware vSphere 6.5	VMRC	Yes	Yes	Yes	Yes	No
	WebMKS		Yes	Yes	Yes	No
Red Hat Virtualization (RHV) 4.1	SPICE	Yes	No	No	No	No
Red Hat OpenStack Platform 9	VNC	Yes	No	No	No	No

Provider	Connection Type	Support	Chrome	Firefox	IE 11	IE 10
Red Hat OpenStack Platform 10	VNC	Yes	No	No	No	No
Red Hat OpenStack Platform 11	VNC	No	No	No	No	No
Google Compute Engine	N/A	No	N/A	N/A	N/A	N/A
Amazon EC2	N/A	No	N/A	N/A	N/A	N/A
Microsoft SCVMM	N/A	No	N/A	N/A	N/A	N/A

Table 22. Remote Console Support on Windows 10

Provider	Connection Type	Support	Chrome	Firefox	IE 11	IE 10	Edge
VMware vSphere 5.5	VNC	Yes	No	No	No	No	Yes
	VMRC		No	No	No	No	No
VMware vSphere 6.0	VNC	Yes	No	No	No	No	Yes
	VMRC		No	No	No	No	Yes
	WebMKS		No	No	No	No	Yes
VMware vSphere 6.5	VMRC	Yes	No	No	No	No	Yes
	WebMKS		No	No	No	No	Yes
Red Hat Virtualization (RHV) 4.1	SPICE	Yes	No	No	No	No	No
Red Hat OpenStack Platform 9	VNC	Yes	No	No	No	No	No
Red Hat OpenStack Platform 10	VNC	Yes	No	No	No	No	No
Red Hat OpenStack Platform 11	VNC	No	No	No	No	No	No
Google Compute Engine	N/A	No	N/A	N/A	N/A	N/A	N/A

Provider	Connection Type	Support	Chrome	Firefox	IE 11	IE 10	Edge
Amazon EC2	N/A	No	N/A	N/A	N/A	N/A	N/A
Microsoft SCVMM	N/A	No	N/A	N/A	N/A	N/A	N/A

Table 23. Remote Console Support on Windows 2012 Server

Provider	Connection Type	Support	Chrome	Firefox	IE 11	IE 10
VMware vSphere 5.5	VNC	Yes	Yes	Yes	Yes	No
	VMRC		No	No	No	No
VMware vSphere 6.0	VNC	Yes	Yes	Yes	Yes	No
	VMRC		No	No	No	No
	WebMKS		No	No	No	No
VMware vSphere 6.5	VMRC	Yes	Yes	Yes	Yes	No
	WebMKS		Yes	Yes	Yes	No
Red Hat Virtualization (RHV) 4.1	SPICE	Yes	No	No	No	No
Red Hat OpenStack Platform 9	VNC	Yes	No	No	No	No
Red Hat OpenStack Platform 10	VNC	Yes	No	No	No	No
Red Hat OpenStack Platform 11	VNC	No	No	No	No	No
Google Compute Engine	N/A	No	N/A	N/A	N/A	N/A
Amazon EC2	N/A	No	N/A	N/A	N/A	N/A
Microsoft SCVMM	N/A	No	N/A	N/A	N/A	N/A

7. OPERATING SYSTEM SUPPORT

This section outlines the supported operating systems by infrastructure and cloud providers.

Table 24. Windows Support by Infrastructure Providers

Infrastructure Provider	Windows 7 SP1	Windows 8.1	Windows 10	Windows 2012	Windows 2016
Red Hat Virtualization 4.0			Yes		
Red Hat Virtualization 4.1			Yes		
Red Hat OpenStack Platform 10 [a]	Yes	Yes	Yes	Yes	Yes
Red Hat OpenStack Platform 11 [a]	No	No	No	No	No
Red Hat OpenStack Platform 12 [a]	Yes	Yes	Yes	Yes	Yes
Red Hat OpenStack Platform 13 [a]	Yes	Yes	Yes	Yes	Yes
Red Hat OpenShift					
VMware vCenter 5.5 [b]	Yes	Yes	Yes	Yes	Yes
VMware vCenter 6.0 [c]	Yes	Yes	Yes	Yes	Yes
VMware vCenter 6.5 [d]	Yes	Yes	Yes	Yes	Yes
VMware vCenter 6.7 [e]	Yes	Yes	Yes	Yes	Yes
Microsoft SCVMM 2012 SP1 [a]	Yes	Yes	Yes	Yes	Yes
Microsoft SCVMM 2016 [a]	Yes	Yes	Yes	Yes	Yes

[a] See Section 8.2, “Guest Operating Systems”

[b] VMware vCenter versions below 5.5 are officially deprecated by VMware.

[c] Install the VMware VDDK 6.0 so that SmartState analysis is successful. Alternatively, you can use VMware VDDK 5.5.

[d] Install the VMware VDDK 6.5 so that SmartState analysis is successful. Alternatively, you can use VMware VDDK 6.0.

[e] Install the VMware VDDK 6.7 so that SmartState analysis is successful. Alternatively, you can use VMware VDDK 6.0.

Table 25. Windows Support by Cloud Providers

Cloud Provider	Windows 7 SP1	Windows 8.1	Windows 10	Windows 2012	Windows 2016
Red Hat OpenStack Platform 10 [a]	Yes	Yes	Yes	Yes	Yes
Red Hat OpenStack Platform 11 [a]	No	No	No	No	No
Red Hat OpenStack Platform 12 [a]	Yes	Yes	Yes	Yes	Yes
Red Hat OpenStack Platform 13 [a]	Yes	Yes	Yes	Yes	Yes
Microsoft Azure	Yes	Yes	Yes	Yes	Yes
Amazon EC2	Yes	Yes	Yes	Yes	Yes
Google Compute Engine	No	No	No	No	No

Table 26. Linux Support by Infrastructure Providers

Infrastructure Provider	RHEL 6	RHEL 7	Ubuntu	SUSE
Red Hat Virtualization 4.0		Yes		
Red Hat Virtualization 4.1		Yes		
Red Hat OpenStack Platform 10 [a]	Yes	Yes	Yes	Yes
Red Hat OpenStack Platform 11 [a]	No	No	No	No
Red Hat OpenStack Platform 12 [a]	Yes	Yes	Yes	Yes
Red Hat OpenStack Platform 13 [a]	Yes	Yes	Yes	Yes
Red Hat OpenShift	Yes	Yes		
VMware vCenter 5.5 [b]	Yes	Yes	Yes	Yes
VMware vCenter 6.0 [c]	Yes	Yes	Yes	Yes
VMware vCenter 6.5 [d]	Yes	Yes	Yes	Yes

Infrastructure Provider	RHEL 6	RHEL 7	Ubuntu	SUSE
VMware vCenter 6.7 [e]	Yes	Yes	Yes	Yes
Microsoft SCVMM 2012 SP1 [a]	Yes	Yes	Yes	Yes
Microsoft SCVMM 2016 [a]	Yes	Yes	Yes	Yes

Table 27. Linux Support by Cloud Providers

Cloud Provider	RHEL 6	RHEL 7	Ubuntu	SUSE
Red Hat OpenStack Platform 10 [a]	Yes	Yes	Yes	Yes
Red Hat OpenStack Platform 11 [a]	No	No	No	No
Red Hat OpenStack Platform 12 [a]	Yes	Yes	Yes	Yes
Red Hat OpenStack Platform 13 [a]	Yes	Yes	Yes	Yes
Microsoft Azure	Yes	Yes	Yes	Yes
Amazon EC2	Yes	Yes	Yes	Yes
Google Compute Engine	No	No	No	No

8. 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 SmartState analysis of virtual machines and instances by guest operating system, file system, and by provider.

8.1. File Systems

The following tables outline SmartState analysis support for different file systems by infrastructure and cloud providers.

Table 28. Windows File System SmartState Analysis Support by Infrastructure Providers

Infrastructure Provider	ReFS	NTFS	FAT32	FAT
Red Hat Virtualization 4.0	No			
Red Hat Virtualization 4.1	No			

Infrastructure Provider	ReFS	NTFS	FAT32	FAT
Red Hat OpenStack Platform 10 [a]	No	Yes	No	No
Red Hat OpenStack Platform 11 [a]	No	No	No	No
Red Hat OpenStack Platform 12 [a]	No	Yes	No	No
Red Hat OpenStack Platform 13 [a]	No	Yes	No	No
Red Hat OpenShift	No			
VMware vCenter 5.5 [b]	No	Yes	Yes	Yes
VMware vCenter 6.0 [c]	No	Yes	Yes	Yes
VMware vCenter 6.5 [d]	No	Yes	Yes	Yes
VMware vCenter 6.7 [e]	No	Yes	Yes	Yes
Microsoft SCVMM 2012 SP1	No	Yes	Yes	Yes
Microsoft SCVMM 2016	No	Yes	Yes	Yes

Table 29. Windows File System SmartState Analysis Support by Cloud Providers

Cloud Provider	ReFS	NTFS	FAT32	FAT
Red Hat OpenStack Platform 10 [a]	No	Yes	No	No
Red Hat OpenStack Platform 11 [a]	No	No	No	No
Red Hat OpenStack Platform 12 [a]	No	Yes	No	No
Red Hat OpenStack Platform 13 [a]	No	Yes	No	No
Microsoft Azure	No	Yes	Yes	Yes
Amazon EC2	No	Yes	Yes	Yes
Google Compute Engine	No	No	No	No

Table 30. Linux File System SmartState Analysis Support by Infrastructure Providers

Infrastructure Provider	EXT3	EXT4	XFS
Red Hat Virtualization 4.0			
Red Hat Virtualization 4.1			
Red Hat OpenStack Platform 10 [a]	Yes	Yes	Yes
Red Hat OpenStack Platform 11 [a]	No	No	No
Red Hat OpenStack Platform 12 [a]	Yes	Yes	Yes
Red Hat OpenStack Platform 13 [a]	Yes	Yes	Yes
Red Hat OpenShift			
VMware vCenter 5.5 [b]	Yes	Yes	Yes
VMware vCenter 6.0 [c]	Yes	Yes	Yes
VMware vCenter 6.5 [d]	Yes	Yes	Yes
VMware vCenter 6.7 [e]	Yes	Yes	Yes
Microsoft SCVMM 2012 SP1	Yes	Yes	Yes
Microsoft SCVMM 2016	Yes	Yes	Yes

Table 31. Linux File System SmartState Analysis Support by Cloud Providers

Cloud Provider	EXT3	EXT4	XFS
Red Hat OpenStack Platform 10 [a]	Yes	Yes	Yes
Red Hat OpenStack Platform 11 [a]	No	No	No
Red Hat OpenStack Platform 12 [a]	Yes	Yes	Yes
Red Hat OpenStack Platform 13 [a]	Yes	Yes	Yes
Microsoft Azure	Yes	Yes	Yes
Amazon EC2	Yes	Yes	Yes

Cloud Provider	EXT3	EXT4	XFS
Google Compute Engine	No	No	No

Table 32. Other File System SmartState Analysis Support by Infrastructure Providers

Infrastructure Provider	CDFS	Any Encrypted FS
Red Hat Virtualization 4.0		
Red Hat Virtualization 4.1		
Red Hat OpenStack Platform 10 [a]	Yes	Yes
Red Hat OpenStack Platform 11 [a]	No	No
Red Hat OpenStack Platform 12 [a]	Yes	Yes
Red Hat OpenStack Platform 13 [a]	Yes	Yes
Red Hat OpenShift		
VMware vCenter 5.5 [b]	Yes	Yes
VMware vCenter 6.0 [c]	Yes	Yes
VMware vCenter 6.5 [d]	Yes	Yes
VMware vCenter 6.7 [e]	Yes	Yes
Microsoft SCVMM 2012 SP1	Yes	Yes
Microsoft SCVMM 2016	Yes	Yes

Table 33. Other File System SmartState Analysis Support by Cloud Providers

Cloud Provider	CDFS	Any Encrypted FS
Red Hat OpenStack Platform 10 [a]	Yes	Yes
Red Hat OpenStack Platform 11 [a]	No	No
Red Hat OpenStack Platform 12 [a]	Yes	Yes

Cloud Provider	CDFS	Any Encrypted FS
Red Hat OpenStack Platform 13 [a]	Yes	Yes
Microsoft Azure	Yes	Yes
Amazon EC2	Yes	Yes
Google Compute Engine	Yes	Yes

8.2. Guest Operating Systems

Table 34. Supported Guest Operating Systems With Their Support Life Cycle

Guest Operating System	EOL Date	Extended Support Date	Link
Windows 2012 R2 Standard	10/9/2018	10/10/2023	Windows 2012 R2
Windows 2012 R2 Datacenter	10/9/2018	10/10/2023	Windows 2012 R2
Windows 2016 Standard	1/11/2022	1/11/2027	Windows 2016 Standard
Windows 2016 Datacenter	1/11/2022	1/11/2027	Windows 2016 Datacenter
Windows 7 SP1	1/13/2015	1/14/2020	Windows 7 SP1
Windows 8.1	1/9/2018	1/10/2023	Windows 8.1
Windows 10 Ent. 2016 LTSB	10/12/2021	10/13/2026	Windows 10 Ent. 2016
Microsoft SCVMM 2012 SP1	7/11/2017	7/12/2022	SCVMM 2012 SP1
Microsoft SCVMM 2016	1/11/2022	1/11/2027	SCVMM 2016
Red Hat OpenStack Platform Version 10.0	6/16/2018	12/16/2019	RHOSP Life Cycle
Red Hat OpenStack Platform Version 11.0	N/A	5/18/2018	RHOSP Life Cycle
Red Hat OpenStack Platform Version 12.0	N/A	12/13/2018	RHOSP Life Cycle
Red Hat OpenStack Platform Version 13.0	N/A	6/27/2021	RHOSP Life Cycle