



Red Hat Hyperconverged Infrastructure for Virtualization 1.5

Managing virtual machines using Cockpit

Perform common virtual machine management tasks in Cockpit

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Abstract

After Red Hat Hyperconverged Infrastructure for Virtualization has been deployed, you can perform many operational and management tasks for virtual machines using Cockpit. Read this book to understand how to manage virtual machines using Cockpit. This document explains how to perform maintenance tasks specific to Red Hat Hyperconverged Infrastructure for Virtualization.

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CHAPTER 1. UNDERSTANDING COCKPIT

1.1. UNDERSTANDING THE OVIRT MACHINES TAB

The **oVirt Machines** tab provides an overview of the virtual machines running in the hyperconverged cluster.

To view this tab, browse to the Cockpit interface for your server (for example, <http://server1.example.com:9090>), log in, and click the hostname and **oVirt Machines**.

The oVirt Machines tab

Name	Connection	State
HostedEngine	System	running
ovirt-metrics	System	running

This tab is divided into a number of subtabs.

Host

The **Host** subtab shows information about virtual machines that are available on this virtualization host. Clicking on each virtual machine shows a summary of that machine, as well as various management operations. See [Managing virtual machines using Cockpit](#) for more information about virtual machine operations.

Cluster

The **Cluster** subtab shows information about virtual machines that are available in the hyperconverged cluster. The **Host** column lets you easily navigate to the appropriate location for managing each virtual machine. The **Action** column shows any operations you can perform from this virtualization host.

The Cluster subtab

Name	Description	Cluster	Template	Memory	vCPUs	OS	HA	Stateless	Host	Action	State
HostedEngine	Hosted engine VM	Default	Blank	16.0 GiB	4	rhel_7x64	no	no	Host		running

Templates

The **Templates** subtab shows the template images that you can use to create new virtual machines.

The Templates subtab

Name	Version	Base Template	Description	Memory	vCPUs	OS	HA	Stateless	Action
Blank		Blank	Blank template	1 GiB	1	other	no	no	Create VM
centos7-template		centos7-template		1 GiB	1	other	no	no	Create VM
RHEL7.5_Template		RHEL7.5_Template		2 GiB	2	other_linux	yes	no	Create VM

VDSM

The **VDSM** subtab shows the current contents of the `vdsmd.conf` file and provides an easy way to edit the file's contents. See [VDSM and Hooks](#) in the Red Hat Virtualization 4.2 documentation for more information about VDSM.

The VDSM subtab

Host	Cluster	Templates	VDSM
------	---------	-----------	------

Edit the vdsmd.conf

VDSM Service Management Save Reload

```
[vars]
ssl = true

[addresses]
management_port = 54321
```

1.2. UNDERSTANDING THE VIRTUAL MACHINE SUMMARY

In Cockpit, the **Host** subtab on the **oVirt Machines** tab shows information about virtual machines that are available on this virtualization host.

Clicking on each virtual machine shows a summary of that machine, as well as various management operations. The summary is divided into a number of sections that display different types of information and operations.

Overview

This section shows basic information about the virtual machine's compute resources and capabilities.

The Overview section of the virtual machine summary

HostedEngine
System
running

Overview Usage Disks Console oVirt
Restart Shut Down Suspend Delete

Memory: 16.0 GiB Emulated Machine: pc-i440fx-rhel7.5.0 Boot Order: disk Description: Hosted engine

vCPUs: 4 CPU Type: custom (Haswell-noTSX) Autostart: disabled VM


Usage

This section shows the memory and CPU usage of this virtual machine.

The Usage section of the virtual machine summary

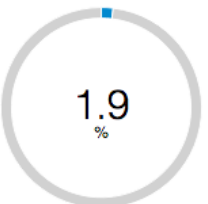
HostedEngine
System
running

Overview Usage Disks Console oVirt
Restart Shut Down Suspend Delete



15.1
GB

used from 16.0 GiB memory



1.9
%

used from 4 vCPUs

Disks

This section shows details about the storage devices available to this virtual machine.

The Disks section of the virtual machine summary

HostedEngine
System
running

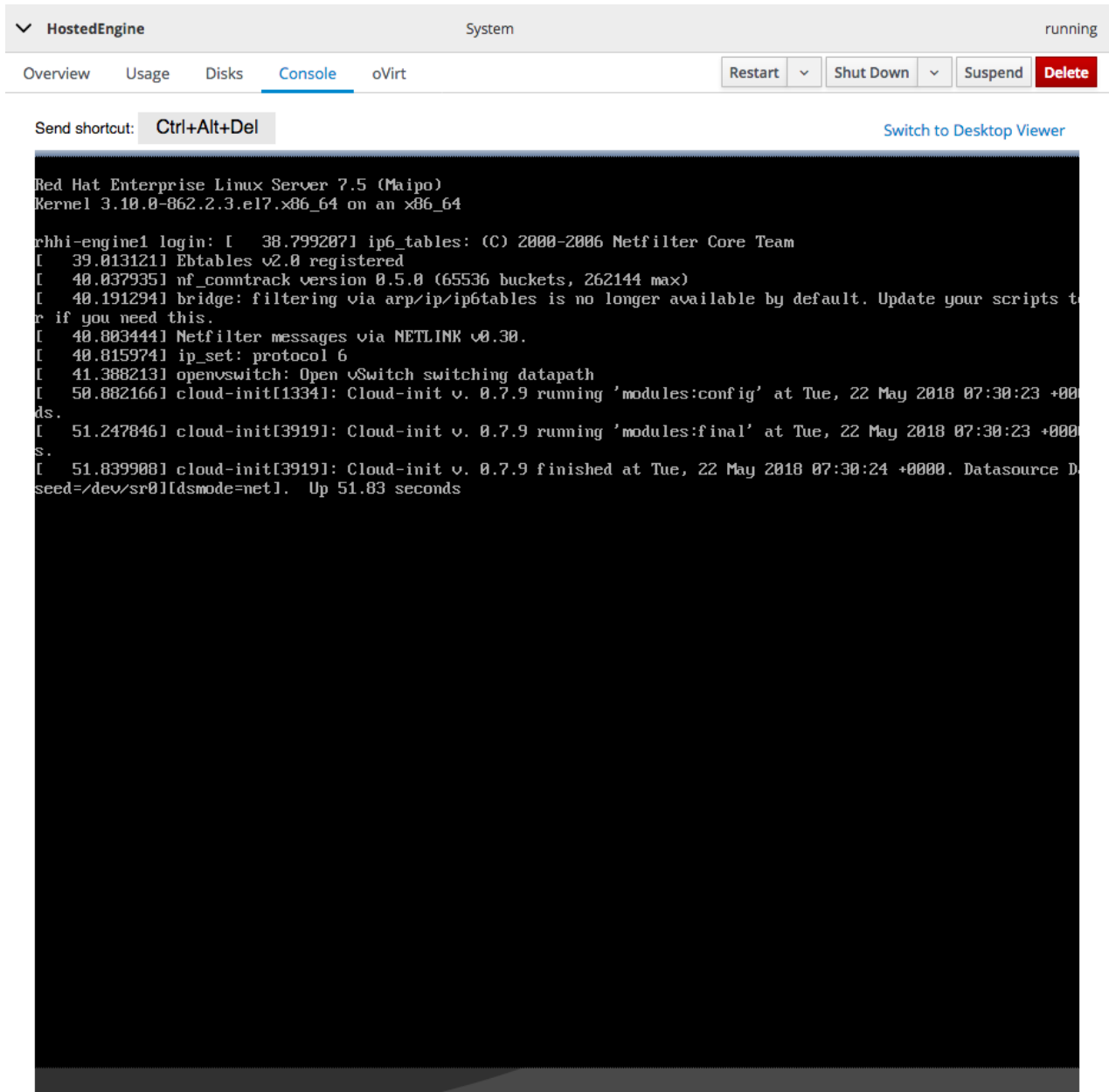
Overview Usage Disks Console oVirt
Restart Shut Down Suspend Delete

Device	Target	Used	Capacity	Bus	Readonly	Source
cdrom	hdc	0.00 GB		ide	yes	
disk	vda	57.1 GB	58 GB	virtio	no	File: /var/run/vdsm/storage/cd6093ed-53d3-4fd4-b4e4-4672f33e2578/e9c2dcf9-58d0-42e0-ac3d-352b85ad1a6d/452fa5aa-1905-4b1d-bb63-603e34ffb595

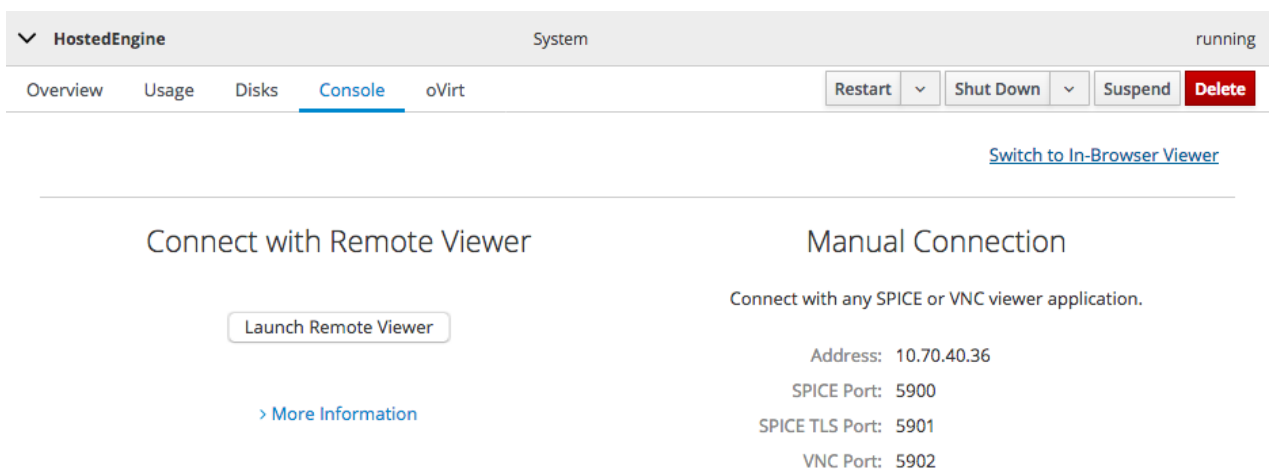
Console

This section shows options for connecting to the console of the virtual machine.

Graphics Console (VNC)



Graphics Console in Desktop Viewer



oVirt

This section shows virtualization related information about the virtual machine and provides a way to migrate the virtual machine to another virtualization host. See [Migrating a virtual machine to a different virtualization host using Cockpit](#) for more details about migrating virtual machines.

The oVirt section of the virtual machine summary

The screenshot displays the Cockpit interface for a virtual machine. At the top, there is a header bar with a dropdown menu showing 'HostedEngine', the text 'System', and the status 'running'. Below the header, there are navigation tabs: 'Overview', 'Usage', 'Disks', 'Console', and 'oVirt' (which is currently selected). To the right of these tabs are several action buttons: 'Restart' with a dropdown arrow, 'Shut Down' with a dropdown arrow, 'Suspend', and a red 'Delete' button. Below the navigation bar, the main content area shows several key-value pairs: 'Description: Hosted engine VM', 'HA: disabled', 'Migrate To:' followed by a dropdown menu showing 'Automatically selected host', 'Base template: Blank', 'Stateless: no', 'OS Type: rhel_7x64', and 'Optimized for: server'.

See [Managing virtual machines using Cockpit](#) for more information about any of the virtual machine operations mentioned in this section.

CHAPTER 2. MANAGING VIRTUAL MACHINES USING COCKPIT

2.1. CREATING A VIRTUAL MACHINE FROM A TEMPLATE USING COCKPIT

1. Log in to Cockpit.
2. Click the hostname, then click **oVirt Machines** → **Template**.
3. Click the **New VM** button beside the template that you want to use.
4. Specify a **Name** for your VM and click **Create**.
Your new virtual machine is created on one of the hosts in your hyperconverged cluster.

2.2. UPDATING A VIRTUAL MACHINE USING COCKPIT

You cannot currently update virtual machines using Cockpit.

See [Upgrading to RHHI for Virtualization 1.5](#) for information about updating the Hosted Engine virtual machine using Red Hat Virtualization Manager.

See [Updating Virtual Machine Guest Agents and Drivers](#) in the Red Hat Virtualization 4.2 documentation for instructions on updating virtualization related software on a virtual machine using Red Hat Virtualization Manager.

2.3. STARTING A VIRTUAL MACHINE USING COCKPIT

1. Log in to Cockpit.
2. Click the hostname, then click **oVirt Machines** → **Cluster**.
3. Click **Run** beside the virtual machine you want to start.

2.4. PAUSING A VIRTUAL MACHINE USING COCKPIT

1. Log in to Cockpit.
2. Click the hostname, then click **oVirt Machines** → **Host**.
3. Click the virtual machine to pause.
4. Click **Suspend**.

2.5. RESUMING A VIRTUAL MACHINE USING COCKPIT

1. Log in to Cockpit.
2. Click the hostname, then click **oVirt Machines** → **Host**.
3. Click the virtual machine to resume.
4. Click **Resume**.

2.6. DELETING A VIRTUAL MACHINE USING COCKPIT

1. Log in to Cockpit.
2. Click the hostname, then click **oVirt Machines** → **Host**.
3. Click the virtual machine to delete.
4. Click **Shut Down** to shut down the virtual machine before deletion.
5. Click **Delete**.
6. Confirm deletion.

2.7. SHUTTING DOWN A VIRTUAL MACHINE USING COCKPIT

1. Log in to Cockpit on the host that is running the virtual machine.
2. Click the hostname, then click **oVirt Machines** → **Host**.
3. Click on the virtual machine you want to shut down.
4. Click **Shut Down**. This shuts the virtual machine down gracefully.
If your virtual machine is not responding, click the dropdown arrow beside **Shut Down** and click **Force Shut Down** instead.

2.8. MIGRATING A VIRTUAL MACHINE TO A DIFFERENT VIRTUALIZATION HOST USING COCKPIT

1. Log in to Cockpit.
2. Click the hostname, then click **oVirt Machines** → **Host**.
3. Click the virtual machine to migrate.
4. Click the **oVirt** section.

The oVirt section of the virtual machine summary

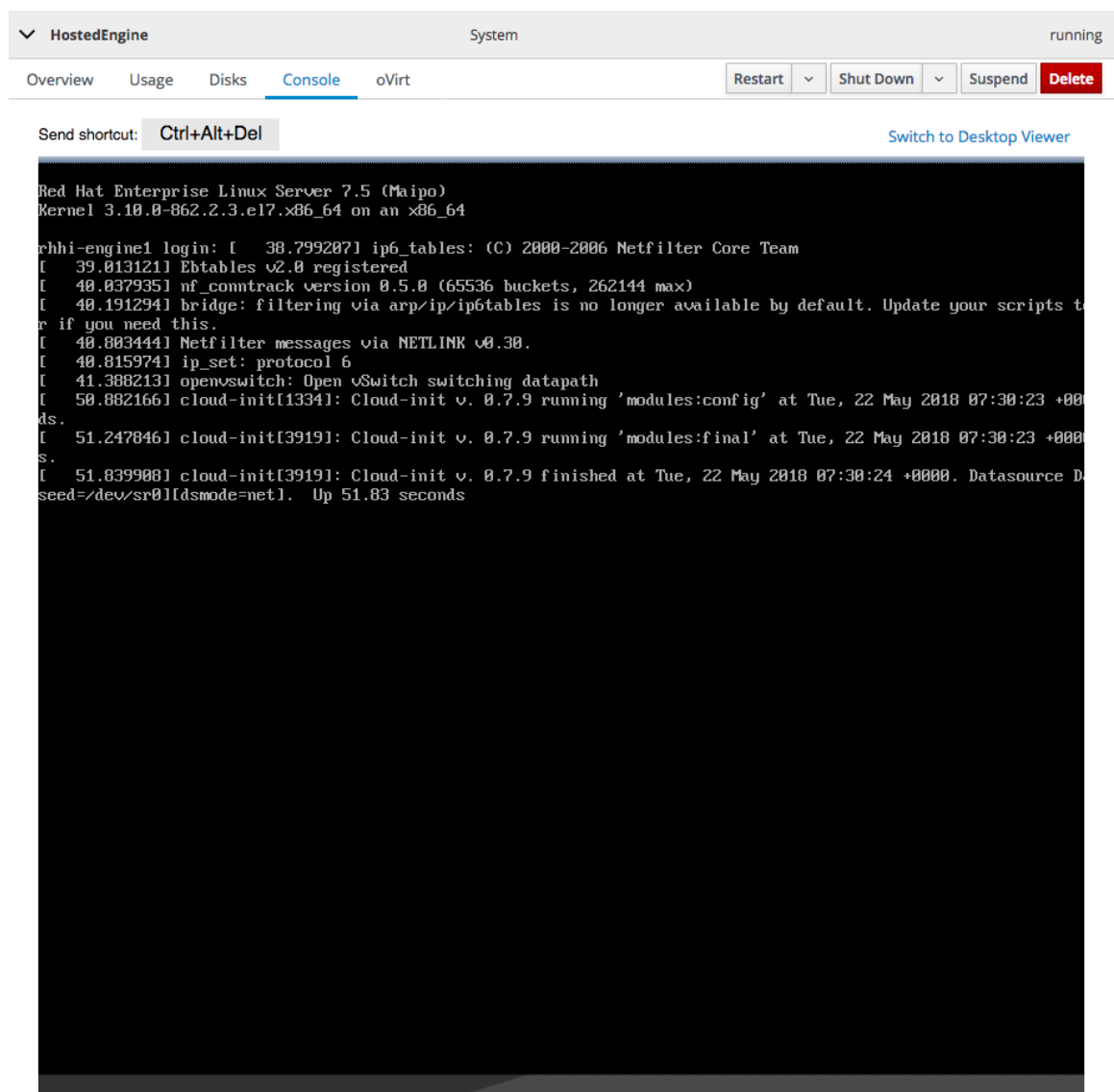
HostedEngine System running
 Overview Usage Disks Console **oVirt** Restart Shut Down Suspend Delete
 Description: Hosted engine VM HA: disabled Migrate To: Automatically selected host
 Base template: Blank Stateless: no
 OS Type: rhel_7x64 Optimized for: server

5. Specify a host in the dropdown menu, or use the default value of **Automatically selected host**.
6. Click **Migrate to** and wait for the virtual machine to migrate.
7. Click the **Cluster** subtab and verify that the virtual machine is now running on a different host.

2.9. ACCESSING THE CONSOLE OF A VIRTUAL MACHINE USING COCKPIT

1. Log in to Cockpit.
2. Click the hostname, then click **oVirt Machines** → **Host**.
3. Click the **Console** subtab.
4. Select a **Console Type**.
 - a. **For the Hosted Engine virtual machine**
The default console type for the Hosted Engine virtual machine is **Graphics Console (VNC)**. The console loads after several seconds.

Graphics Console (VNC)



Click anywhere in the console and log in to the Hosted Engine virtual machine to perform any administrative operations.

- b. **For any other virtual machine:**

Graphics Console in Desktop Viewer

The screenshot shows the Cockpit interface for a system named 'HostedEngine'. The system is in a 'running' state. The navigation menu includes 'Overview', 'Usage', 'Disks', 'Console' (which is selected), and 'oVirt'. Action buttons for 'Restart', 'Shut Down', 'Suspend', and 'Delete' are visible. A link to 'Switch to In-Browser Viewer' is also present. Below the navigation, there are two main sections: 'Connect with Remote Viewer' and 'Manual Connection'. The 'Connect with Remote Viewer' section has a 'Launch Remote Viewer' button and a '> More Information' link. The 'Manual Connection' section provides connection details: 'Address: 10.70.40.36', 'SPICE Port: 5900', 'SPICE TLS Port: 5901', and 'VNC Port: 5902'.

On Red Hat Enterprise Linux based systems, click **Launch Remote Viewer** to launch the **Remote Viewer** application.

Otherwise, use the information under **Manual Connection** to connect to the console with your preferred client.