



Red Hat Virtualization 4.3

Introduction to the VM Portal

Accessing and using the VM Portal

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Abstract

This document shows you how to use the Red Hat Virtualization VM Portal.

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CHAPTER 1. ACCESSING THE VM PORTAL

1.1. WHAT IS THE VM PORTAL?

The VM Portal presents a comprehensive view of a virtual machine and allows the user to start, stop, edit, and view details of a virtual machine. The actions available to a user in the VM Portal are set by a system administrator. System administrators can delegate additional administration tasks to a user, such as:

- Create, edit, and remove virtual machines
- Manage virtual disks and network interfaces
- Create and use snapshots to restore virtual machines to previous states

Direct connection to virtual machines is facilitated with SPICE or VNC clients. Both protocols provide the user with an environment similar to a locally installed desktop. The administrator specifies the protocol used to connect to a virtual machine at the time of the virtual machine's creation.

1.2. BROWSER REQUIREMENTS

The following browser versions and operating systems can be used to access the Administration Portal and the VM Portal.

Browser support is divided into tiers:

- Tier 1: Browser and operating system combinations that are fully tested and fully supported. Red Hat Engineering is committed to fixing issues with browsers on this tier.
- Tier 2: Browser and operating system combinations that are partially tested, and are likely to work. Limited support is provided for this tier. Red Hat Engineering will attempt to fix issues with browsers on this tier.
- Tier 3: Browser and operating system combinations that are not tested, but may work. Minimal support is provided for this tier. Red Hat Engineering will attempt to fix only minor issues with browsers on this tier.

Table 1.1. Browser Requirements

Support Tier	Operating System Family	Browser
Tier 1	Red Hat Enterprise Linux	Mozilla Firefox Extended Support Release (ESR) version
	Any	Most recent version of Google Chrome, Mozilla Firefox, or Microsoft Edge
Tier 2		
Tier 3	Any	Earlier versions of Google Chrome or Mozilla Firefox

Support Tier	Operating System Family	Browser
	Any	Other browsers

1.3. CLIENT REQUIREMENTS

Virtual machine consoles can only be accessed using supported Remote Viewer (**virt-viewer**) clients on Red Hat Enterprise Linux and Windows. To install **virt-viewer**, see [Installing Supporting Components on Client Machines](#) in the *Virtual Machine Management Guide*. Installing **virt-viewer** requires Administrator privileges.

Virtual machine consoles are accessed through the SPICE, VNC, or RDP (Windows only) protocols. The QXL graphical driver can be installed in the guest operating system for improved/enhanced SPICE functionalities. SPICE currently supports a maximum resolution of 2560x1600 pixels.

Supported QXL drivers are available on Red Hat Enterprise Linux, Windows XP, and Windows 7.

SPICE support is divided into tiers:

- Tier 1: Operating systems on which Remote Viewer has been fully tested and is supported.
- Tier 2: Operating systems on which Remote Viewer is partially tested and is likely to work. Limited support is provided for this tier. Red Hat Engineering will attempt to fix issues with remote-viewer on this tier.

Table 1.2. Client Operating System SPICE Support

Support Tier	Operating System
Tier 1	Red Hat Enterprise Linux 7.2 and later
	Microsoft Windows 7
Tier 2	Microsoft Windows 8
	Microsoft Windows 10

1.4. INSTALLING THE CA CERTIFICATE

The first time you access the VM Portal, you must install the certificate used by the Red Hat Virtualization Manager to avoid security warnings.

Installing the CA certificate in Firefox

1. Go to the VM Portal URL, and on the welcome page, click **CA Certificate**
2. A file named **pki-resource** (with no file extension) will download.
3. Open the Options/Preferences window:
 - Windows: Open the Tools menu and select **Options...**

- Mac: Open the Firefox menu and select **Preferences...**
 - Linux: Open the Edit menu and select **Preferences**
4. Select **Privacy & Security**, and scroll down to **Certificates**.
 5. Click **View Certificates...** to open the Certificate Manager, and select the **Authorities** tab.
 6. Click **Import...**
 7. Select the file of the Root Certificate that you want to import (change file type to **All Files** to view the downloaded file).
 8. Select the check boxes indicating the trust options, and click **OK**.
 9. Click **OK** in the Certificate Manager, and close the Options/Preferences window.
 10. Make sure all Firefox processes are stopped.
 11. Restart Firefox and go to the VM Portal URL. A lock icon in the address bar indicates that the CA certificate is installed.

Installing the CA certificate in Google Chrome

1. Go to the VM Portal URL, and on the welcome page, click **CA Certificate**
2. A file named **pki-resource** (with no file extension) will download.
3. Go to **Settings** → **Advanced** → **Manage Certificates** → **Authorities** tab and click **IMPORT**.
4. Select the file of the Root Certificate that you want to import (change file type to **All Files** to view the downloaded file).
5. Select all the check boxes indicating the trust options, and click **OK**.
6. Close Chrome and makes sure all the Chrome processes are stopped.
7. Restart Chrome and go to the VM Portal URL. A lock icon in the address bar indicates that the CA certificate is installed.

1.5. LOGGING IN TO THE VM PORTAL

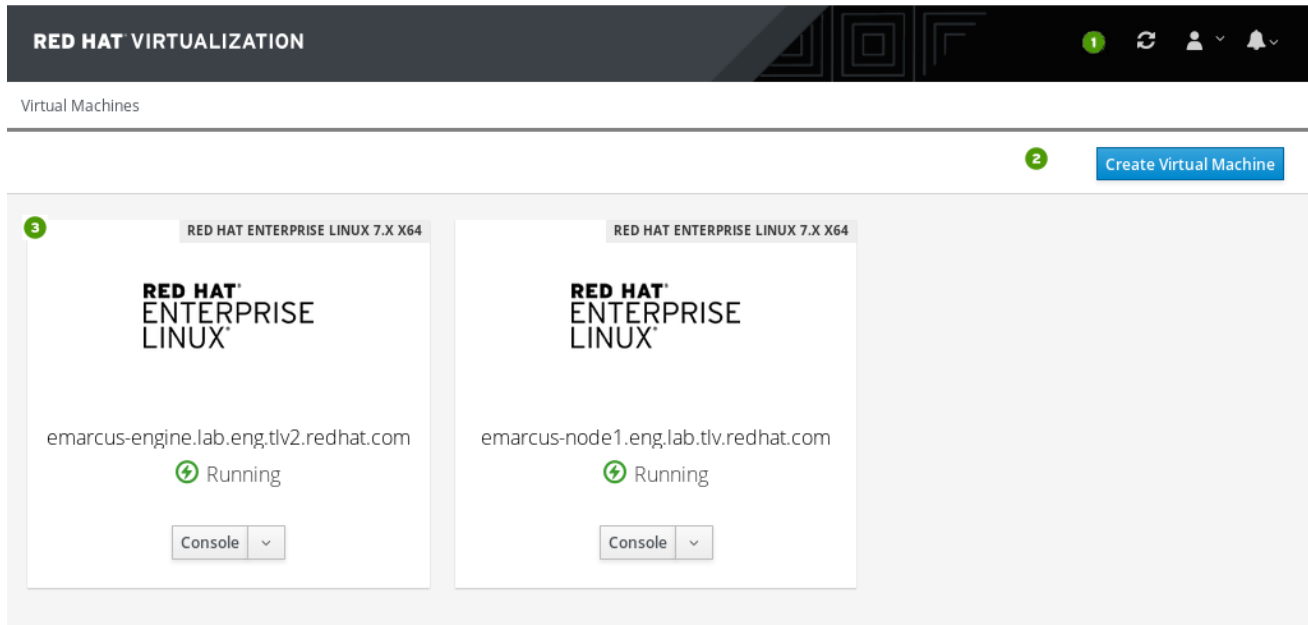
Logging in to the VM Portal

1. Enter the provided server address into the web browser to access the Manager welcome screen.
2. Select the required language from the drop-down list.
3. Click **VM Portal**. An SSO login page displays. SSO login enables you to log in to the VM Portal and the Administration Portal (if you have permission) at the same time.
4. Enter your **User Name** and **Password**. Use the **Profile** drop-down list to select the correct domain.
5. Click **Log In**. The list of virtual machines and pools assigned to you displays.

To log out of the Portal, click your user name in the header bar and select **Log out**. You are logged out of all portals and the Manager welcome screen displays.

1.6. GRAPHICAL USER INTERFACE ELEMENTS

You can perform common virtual machine tasks, change log-in options, and view messages in the VM Portal screen.





Key graphical user interface elements

- **1 Header bar**
The header bar contains the **Refresh** button, the **User** drop-down button, and the **Messages** drop-down button.
 - The **Refresh** button refreshes the display.
 - The **User** drop-down button displays the following list:
 - **Options:** SSH key, for connecting via serial console to the VM Portal
 - **About:** VM Portal release information
 - **Log out:** To log out of the VM Portal
 - The **Messages** drop-down button displays messages from the system.
- **2 Toolbar**
The toolbar contains buttons that allow you to perform additional actions.
- **3 Virtual machines pane**
The virtual machines pane displays the icon, operating system, name, state, and management icons of each virtual machine and pooled virtual machine.

CHAPTER 2. MANAGING VIRTUAL MACHINES

You can perform common virtual machine management tasks in the virtual machines pane:

- Start a virtual machine by clicking the **Run** button (). It is available when the virtual machine is suspended or stopped.
- Access the console of a virtual machine by clicking the **Console** button (). It is available when the virtual machine is running.
- Temporarily stop a virtual machine by selecting **Suspend** from the drop-down menu. It is available when the virtual machine is running.
- Stop a virtual machine by selecting **Shutdown** from the drop-down menu. It is available when the virtual machine is running.
- Restart a virtual machine by selecting **Reboot** from the drop-down menu. It is available when the virtual machine is running.

2.1. VIEWING VIRTUAL MACHINE DETAILS

Viewing a virtual machine's details

Click the virtual machine's name in the virtual machines pane to view details of the virtual machine. The details are displayed in individual cards:

Virtual Machine Description and Status

- **Operating System**
- **Name**
- **State** - For example, *Running*, *Off*, *Asleep*
- **Description**

Details

- **Host**
- **IP Address**
- **FQDN** - Virtual machine's FQDN. The guest agent must be installed on the virtual machine to retrieve this value.
- **Cluster**
- **Data Center**
- **Template**
- **CD**
- **Cloud-Init (Sysprep on Windows virtual machines) status** - *On/Off*

- **Boot Menu** status - *On/Off*
- **Console**
- **Optimized for** - *Desktop/Server/High Performance*
- **CPUs**
- **Memory**

Utilization

- Displays utilization statistics for **CPU, Memory, Networking, and Disk** usage (CPU, Memory, and Networking only display values when the virtual machine is running). The Disk usage display may differ when the guest agent is installed on the virtual machine.

Snapshots

- Displays a list of snapshots that have been saved.

Network Interfaces

- Displays a list of network interfaces defined for this virtual machine.

Disks

- Displays a list of disks defined for this virtual machine.

2.2. EDITING VIRTUAL MACHINES




NOTE

Your user role must have permission to edit a virtual machine.

You can edit a virtual machine's disks and network interfaces in the virtual machine's details view. See [Section 2.1, "Viewing virtual machine details"](#).

Editing a virtual machine

In the virtual machines pane, click the card of the virtual machine that you want to edit. The Virtual machine dashboard is displayed, which contains the following fields, organized in individual cards. Click the **Edit** icon () in the appropriate card to edit the values in that card:

Virtual Machine name and description

- **Name** - The virtual machine name may contain only upper- or lower-case letters, numbers, underscores, hyphens, or periods. Special characters and spaces are not allowed.
- **Description** - Enter a description of this virtual machine (optional).

Details

- **Template** - Displays the name of the template used to create this virtual machine.


- **Change CD** - Allows you to select an ISO file that is accessible to the virtual machine as a CD.
- **CPUs** - Allows you to configure the number of virtual CPUs available to the virtual machine.
- **Memory** - Allows you to configure the virtual memory available to the virtual machine.

Details - Advanced Options

- **Cloud-Init** - The cloud-init tool allows you to automate the deployment of virtual machines. When this is set to *ON*, the **Hostname** and **SSH Authorized Keys** fields are displayed. See [Explanation of Settings in the New Virtual Machine and Edit Virtual Machine Windows](#) in the *Virtual Machine Management Guide* for details.
- **Operating System** - Allows you to select the operating system installed on this virtual machine.
- **Boot Menu** - When set to *ON*, the Boot menu appears in the console, enabling you to select a bootable device.
- **Boot Order**
 - **First Device** - The first device to be checked for booting.
 - **Second Device** - The second device to be checked for booting.


Snapshots

Displays a list of snapshots that have been saved.

- Click the **Edit** icon () to display the **Create Snapshot** button for creating a new snapshot. See [Explanation of Settings in the New Network Interface and Edit Network Interface Windows](#) in the *Virtual Machine Management Guide* for details.
- Click the **information**, **restore**, or **delete** icon to view details, restore a snapshot, or delete a snapshot.


Network Interfaces

Displays a list of network interfaces defined for this virtual machine.

- Click the **Edit** icon () to display the **Create NIC** button for creating a new network interface entry. See [Explanation of Settings in the New Network Interface and Edit Network Interface Windows](#) in the *Virtual Machine Management Guide* for details.
- Click the **Edit** or **Delete** icon to edit or delete a network interface.

Disks

Displays a list of disks that are defined for this virtual machine.

- Click the **Edit** icon () to display the **Create Disk** button for creating a new disk entry.
- Click the **Edit** or **Delete** icon to edit or delete the disk. See [Explanation of Settings in the New Virtual Machine and Edit Virtual Machine Windows](#) in the *Virtual Machine Management Guide* for details.

2.3. CREATING VIRTUAL MACHINES

Creating a virtual machine

1. Click the **Create Virtual Machine** button in the toolbar.
2. Set the following fields:
 - **Name** of the virtual machine. The virtual machine name may contain only upper- or lower-case letters, numbers, underscores (`_`), hyphens (`-`), or periods (`.`). Special characters and spaces are not permitted.
 - **Description** (optional)
 - **Cluster**
 - **Template**
 - **Operating System**
 - **Defined Memory**
 - **CPUs**
 - **Boot Menu**
 - **Boot Order**
 - **First Device**
 - **Second Device**
 - **Cloud-Init**
 - **Icon**

See [Explanation of Settings in the New Virtual Machine and Edit Virtual Machine Windows](#) in the *Virtual Machine Management Guide* for details.
3. Click **Create VM**.

2.4. CONNECTING TO VIRTUAL MACHINES

Connecting to a virtual machine

1. In the virtual machines pane, click the **Run** button in a virtual machine's card to start that virtual machine.
2. Click the **Console** button to connect to the virtual machine.
3. You will be asked to download a **.vv** file.
4. Open the file with **remote-viewer**. A console window displays.

You can now use the virtual machine in the same way you would use a physical desktop.