



Red Hat Virtualization 4.4

Introduction to the VM Portal

Accessing and using the VM Portal

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Red Hat Virtualization Documentation Team
Red Hat Customer Content Services
rhev-docs@redhat.com

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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.

You can access virtual machine consoles using the SPICE, VNC, or RDP (Windows only) protocols. You can install the QXLDDOD graphical driver in the guest operating system to improve the functionality of SPICE. SPICE currently supports a maximum resolution of 2560x1600 pixels.

Client Operating System SPICE Support

Supported QXLDDOD drivers are available on Red Hat Enterprise Linux 7.2 and later, and Windows 10.



NOTE

SPICE may work with Windows 8 or 8.1 using QXLDDOD drivers, but it is neither certified nor tested.

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...** This opens the Certificate Manager.
6. Select the **Authorities** tab.
7. Click **Import...**
8. Select the file of the Root Certificate that you want to import (change file type to **All Files** to view the downloaded file).

9. Select the check boxes indicating the trust options, and click **OK**.
10. Click **OK** in the Certificate Manager, and close the Options/Preferences window.
11. Make sure all Firefox processes are stopped.
12. 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

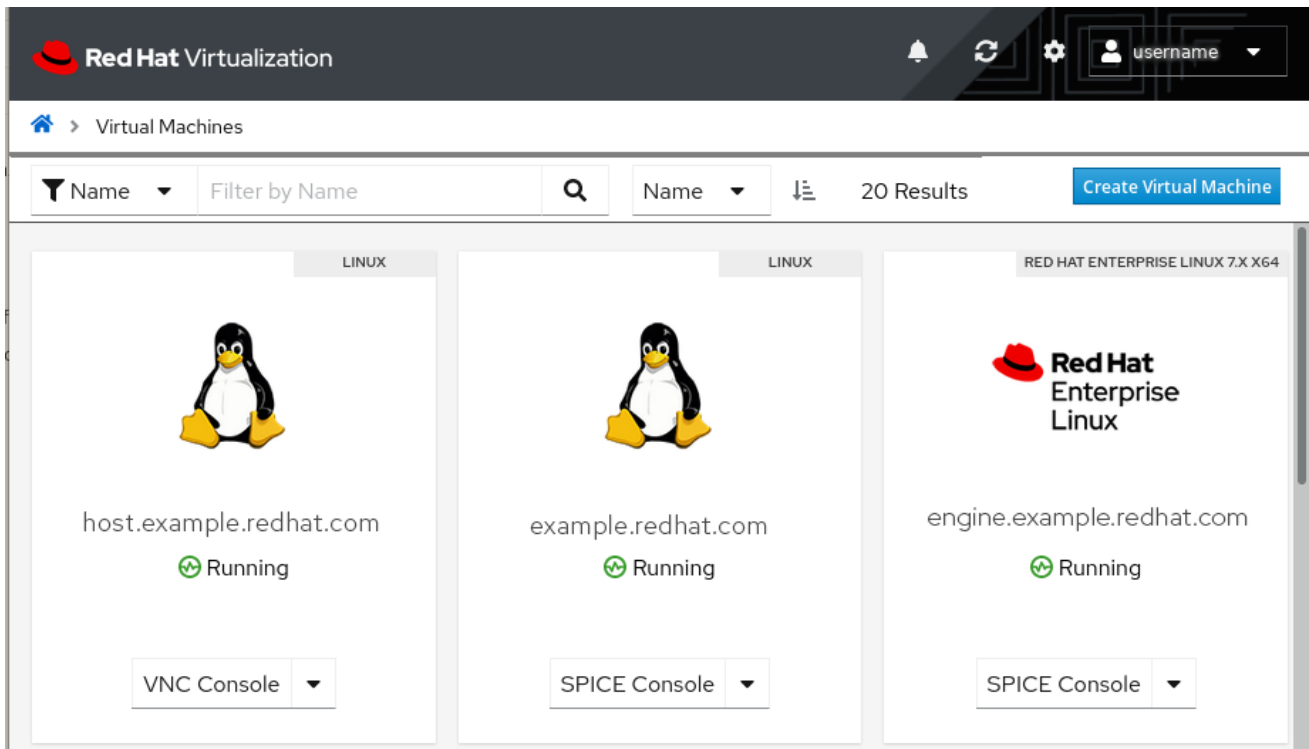
Procedure

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

Header bar

The header bar contains the following buttons:

- **Refresh** - manually refreshes the display. See also Refresh Interval.
- **Account Settings** - enables setting of logged-in user preferences that are persisted on the server.
 - **Reset settings** - allows you to reset all options back to initial installation defaults.
 - General - displays the user name, email address, and allows you to change the UI language.



NOTE

Changing the language setting will override the language chosen in a landing page or by a URL query. See also Advanced Options.

- Refresh Interval - set the automatic UI refresh rate interval.
- Notifications - allows you to mute all notifications for a given time interval. This option is not server persisted, so a page reload will clear this settings.
- Console - settings are applied globally for all VMs.
 - Select your preferred console. This will be the first console option displayed in the VM card (VNC console, VNC console (Browser), SPICE console, Remote desktop).
 - Connect automatically - automatic console login option. Enables automatically connecting to the VM's console of the chosen VM after the user logs in to the VM Portal.



NOTE

Log in is detected based on the age of the session. The default is 60 seconds, and can be changed using the **sessionAgeFirstLoginThresholdInSeconds** parameter in the **ovirt-web-ui.config** file. Setting this parameter to zero disables log in detection, and a console connection will be made on every page reload.

- VNC Options
- VNC (Browser) Options
- SPICE Options
- Serial Console Options - SSH Key for authentication.
- Advanced Options - enable language settings to persist on the server. Enable the the chosen language/URL query language parameter on the landing page to override the chosen user settings language after each login. This enables compatibility with previous language settings behavior.
- **User** - displays the user name of the currently logged in user.
 - About - VM Portal version information.
 - Log out - to log out of the VM Portal.
- **Notifications** - displays notifications.

Toolbar

The toolbar allows you to create new virtual machines (the **Create Virtual Machine** button is only available to authorized users), and search for virtual machines using a filter for the Name, Status, or Operating System of virtual machines or pool entities.

The number of currently displayed virtual machines or pool entities and the total number available is displayed.

Virtual machines pane



The virtual machines pane displays virtual machine cards with the icon, operating system, name, status, and management options for each virtual machine or virtual machine pool.

- Virtual machine pool cards - include a colored label of the pool name, an icon, operating system label, name, Allocated VMs number, the number of Available VMs from this Pool, and a button that allows the user to **Take a virtual Machine**
Virtual machine pools are always displayed for Administrator level users, and for non-admin users that have permissions to view those pools and take pooled virtual machines out of those pools.
- Virtual machine entities that belong to a pool are similar to a regular virtual machine card, with an added colored label with the pool name to which this virtual machine belongs.
- VM management options:
 - **Run** (available when the virtual machine is off or suspended)
When the virtual machine is running, the preferred console is displayed first:

- VNC console
- VNC console (browser)
- Remote desktop (Windows virtual machines only)
- SPICE console
- Take a virtual machine (available only for Pool entities)
- **Suspend**
- **Shutdown**
- **Reboot**

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 [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 FROM THE VM PORTAL

You can create virtual machines from the **VM Portel** or from the **Administration Portal**. For information of creating virtual machines from the **Administration Portal**, see [Creating a virtual machine](#) in the *Virtual Machine Management Guide*.

Procedure

1. Click **Create Virtual Machine** in the toolbar.
2. Fill in the required information in the **Create Virtual Machine** wizard.

There are four screens to complete:

1. Basic Settings screen
 - **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**
 - **Provision Source**
 - **Template**
 - **Operating System**
 - **Memory (MiB)**
 - **Total Virtual CPUs**
 - **Optimized For**
 - Start virtual machine on creation
 - Enable Cloud-init/Sysprep
 - **Advanced CPU Topology Options**
 - **Virtual Sockets**
 - **Cores per Virtual Socket**
 - **Threads per Core**
2. Networking screen
 - **NIC Name**
 - **vNIC Profile**
 - **Device Type**
3. Storage screen
 - **Disk Name**

- **Bootable**
 - **Storage Domain**
 - **Disk Type**
4. Review screen
See [Explanation of Settings in the New Virtual Machine and Edit Virtual Machine Windows](#) in the *Virtual Machine Management Guide* for details.

If everything in the **Review** screen is correct, click **Create Virtual Machine** to complete the operation.

2.4. CONNECTING TO VIRTUAL MACHINES

Procedure

1. In the virtual machines pane, click **Run** in a virtual machine's card to start that virtual machine.
2. Click **Console** to connect to the virtual machine.
You will be asked to download a **.vv** file.
3. Open the file with **remote-viewer**. A console window is displayed.
You can now use the virtual machine in the same way you would use a physical desktop.



NOTE

To allow other users to connect to the VM, make sure you shutdown and restart the virtual machine when you are finished using the console. Alternatively, the administrator can **Disable strict user checking** to eliminate the need for reboot between users. See [Virtual Machine Console Settings Explained](#) in the *Virtual Machine Management Guide* for more information.