Red Hat Virtualization 4.2

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?

Desktop virtualization provides users with a desktop environment that is similar to a personal computer's desktop environment. The VM Portal delivers Virtual Desktop Infrastructure to users. Users access the VM Portal through a web browser to display and access their assigned virtual desktops. The actions available to a user in the VM Portal are set by a system administrator. Standard users can start, stop, and use desktops that are assigned to them by the system administrator. Power users can perform some administrative actions. Both types of users access the VM Portal from the same URL, and are presented with options appropriate to their permission level on login.

Standard User Access

Standard users can power their virtual desktops on and off and connect to them through the VM Portal. 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.

Power User Access

System administrators can delegate some administration tasks by granting users power user access. In addition to the tasks that can be performed by standard users, power users can:

- Create, edit, and remove virtual machines

- Manage virtual disks and network interfaces

- Assign user permissions to virtual machines

- Create and use templates to rapidly deploy virtual machines

- Monitor resource usage and high-severity events

- Create and use snapshots to restore virtual machines to previous states

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
Tier 2	Windows	Internet Explorer 11 or later
	Any	Most recent version of Google Chrome or Mozilla Firefox
Tier 3	Any	Earlier versions of Google Chrome or Mozilla Firefox
	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 protocol. 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.

2. Click **Add Exception** to open the **Add Security Exception** window.

3. Select **Permanently store this exception**.

4. Click **Confirm Security Exception**.

Installing the CA certificate in Internet Explorer

1. Go to the VM Portal certificate URL: **https://*[VM Portal URL]*/ca.crt**.

2. Click **Open** in the **File Download - Security Warning** window to open the **Certificate** window.

3. Click the **Install Certificate** button to open the **Certificate Import Wizard** window.

4. Select the **Place all certificates in the following store** radio button and click **Browse** to open the **Select Certificate Store** window.

5. Select **Trusted Root Certification Authorities** from the list of certificate stores and click **OK**.

6. Click **Next** to proceed to the **Certificate Store** screen.

7. Click **Next** to proceed to the **Completing the Certificate Import Wizard** screen.

8. Click **Finish** to install the certificate.
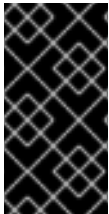
> **IMPORTANT**
>
> If you are using Internet Explorer to access the VM Portal, you must also add the URL for the Red Hat Virtualization welcome page to the list of trusted sites to ensure that all security rules for trusted sites are applied to console resources such as **console.vv** mime files and Remote Desktop connection files.

Downloading the CA certificate

To download the CA certificate manually, click the **CA Certificate** link on the Manager's welcome screen and save the **ca.crt** file.

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.
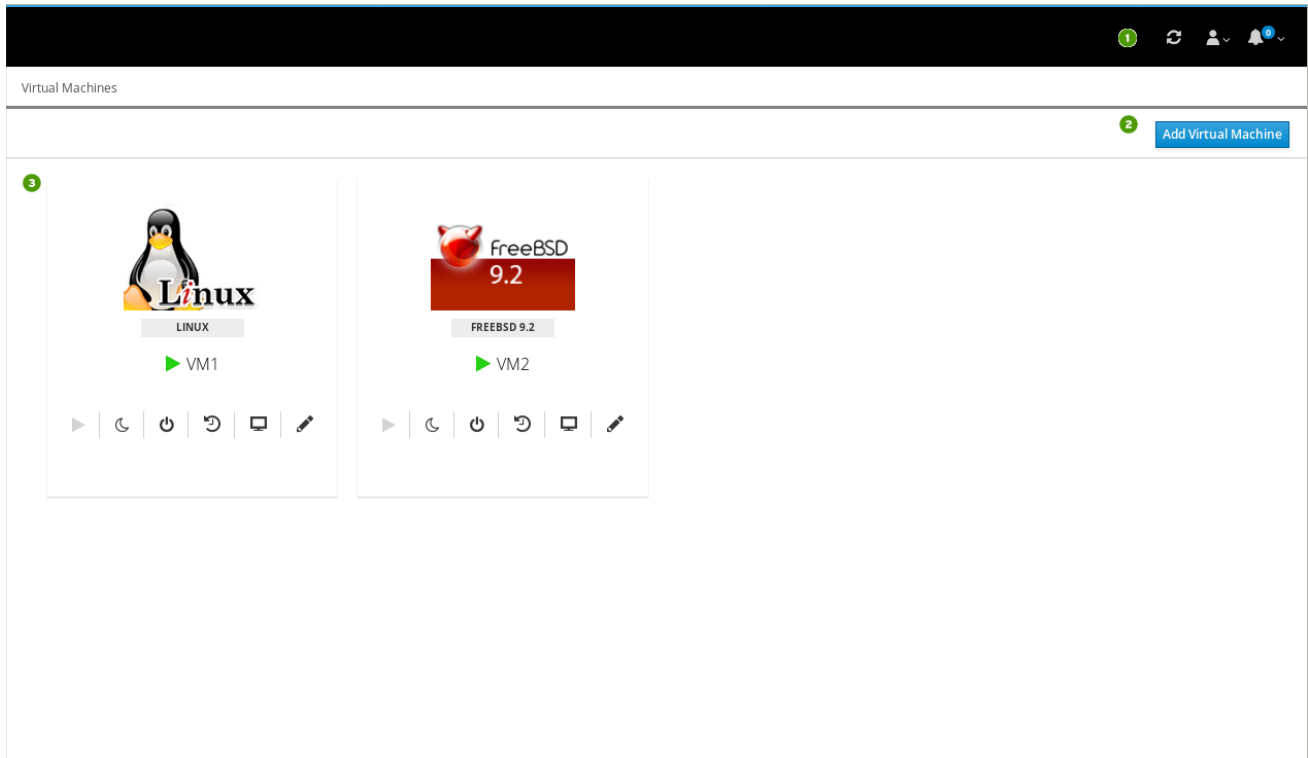
Key graphical user interface elements

- `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.

- `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 up a virtual machine by clicking the **Run** icon (▶). It is available when the virtual machine is paused, stopped, or powered off.

- Temporarily stop a virtual machine by clicking the **Suspend** icon (☾). It is available when the virtual machine is running.

- Stop a virtual machine by clicking the **Shutdown** icon (⏻). It is available when the virtual machine is running.

- Restart a virtual machine by clicking the **Reboot** icon (↺). It is available when the virtual machine is running.

- Access the console of a virtual machine by clicking the **Console** icon (🖥). It is available when the virtual machine is running.

- Edit a virtual machine by clicking the **Edit** icon (✎).

2.1. VIEWING VIRTUAL MACHINE DETAILS

Viewing a virtual machine's details

Click the virtual machine's name in the virtual machines pane to go to the details view. The following details display:

- **State** - For example, **Up**, **Down**, **Paused**, **Suspended**

- **Description** (optional)

- **Cluster**

- **Template**

- **Operating System**

- **Optimized for** - **Desktop**/**Server**/**High Performance**

- **Defined Memory**

- **CPUs**

- **Address** - Virtual machine's FQDN. The guest agent must be installed on the virtual machine to retrieve this value.

- **CD**

- **Console** - See Section 2.5, "Changing console settings" for more information about console options.

- **Disks** - Clicking the **Edit** icon displays the **Delete** and **New** buttons, for deleting the current disk and creating a new disk. See Explanation of Settings in the New Virtual Machine and Edit Virtual Machine Windows in the *Virtual Machine Management Guide* for details.

- **Network interfaces** - Clicking the **Edit** icon displays the **Delete** and **New** buttons, for deleting the current network interface and creating a new network interface. See Explanation of Settings in the New Network Interface and Edit Network Interface Windows in the *Virtual Machine Management Guide* for details.

- **Boot Menu** status - `On`/`Off`

- **Cloud-Init** status - `On`/`Off`. To change the **Boot Menu** or **Cloud-Init** status, see Section 2.2, "Editing virtual machines".

To go directly to the details view of other virtual machines, click the collapsible arrow on the left side of the details pane to open a list of available virtual machines. You can click each machine name to view its details.

2.2. EDITING VIRTUAL MACHINES

NOTE

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

You can edit a virtual machine's disk, network interfaces, and console settings in the virtual machine's details view. See Section 2.1, "Viewing virtual machine details".

Editing a virtual machine

1. In the virtual machines pane, click the **Edit** icon ( ) of the virtual machine that you want to edit. The following fields appear:

   - **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**

   - **CD**

   - **Boot menu** - When this is set to `ON`, the **Boot** menu appears in the console, enabling you to select a bootable device.

   - **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 display.

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

2. Click **Update VM**.

Changing a virtual machine's icon

1. Click the **Edit** icon under the virtual machine's icon.

2. Browse to your image and click **Open**. The maximum permitted size is 150 x 120 pixels.

To restore the default icon, click the circular arrow.

2.3. CREATING VIRTUAL MACHINES

Creating a virtual machine

1. Click the **Add New VM** 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**

   - **CD**
     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** icon to start a virtual machine.

2. Click the **Console** icon 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 that you would use a physical desktop.

2.5. CHANGING CONSOLE SETTINGS

> **NOTE**
>
> The **Console** settings may be changed by any user who has permission to view the
> virtual machine. The changes are stored locally in the browser, not on the server.

Changing console settings

1. In the virtual machines pane, click the virtual machine name to go to the details view.

2. Click the **Console** settings icon ( ) to access the following options:

   - **Connect automatically**: Enables you to connect automatically if only one virtual machine is running.

   - **Fullscreen**: Opens the virtual machine console in full screen automatically when you connect to the virtual machine. Press **SHIFT + F11** to toggle full screen mode on or off.

   - **Use Ctrl+Alt+End**: Maps the **Ctrl+Alt+Del** keyboard shortcut to **Ctrl+Alt+End**.

   - **Smartcard enabled**: Allows you to pass the smartcard from your client machine to the virtual machine.