

Quest® NetVault® Plug-in *for Red Hat
Virtualization* 13.0

User's Guide



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Legend

-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.

-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

-  **IMPORTANT NOTE, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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Introducing NetVault Plug-in *for Red Hat Virtualization*

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About NetVault Plug-in *for Red Hat Virtualization*

Quest® NetVault® Plug-in *for Red Hat Virtualization* (Plug-in *for Red Hat Virtualization*) protects your virtual machines (VMs) from disaster, media failure, and data corruption. Its intuitive, easy-to-use interface gives you a single, centralized console to configure backup and restore policies for your virtual environments. The Plug-in *for Red Hat Virtualization* is integrated with Red Hat Virtualization (RHV), which is a software-defined platform that virtualizes Linux and Windows systems. RHV is built on Red Hat Enterprise Linux and the Kernel-based Virtual Machine (KVM). The plug-in minimizes downtime by allowing you to restore complete VM images quickly and reliably with minimal interaction. Through automatic integration with a wide range of backup devices, your virtualized data can be protected and safely stored off-site to meet your disaster recovery and business continuity goals.

After you install your Red Hat Enterprise Virtualization Hypervisor hosts, which are used to run your VMs, you can use the plug-in to back up and recover VMs that are hosted in a Red Hat Virtualization Hypervisor cluster. The cluster, which can have multiple hosts, provides computing and storage resources and replicates data to ensure high availability.

Key benefits

- **Increase confidence while deploying RHV:** Plug-in *for Red Hat Virtualization* provides peace of mind because you point-and-click to back up or restore VMs. It increases efficiency by consolidating VM backup management into a single environment, improving storage administration efficiency.
- **Automatic integration of backup devices ensures business continuity:** The Plug-in *for Red Hat Virtualization* supports a wide range of backup devices, letting you store your backup data on disk-based storage devices, virtual tape libraries, or physical tape libraries. It ensures that your virtualized environments are protected and stored off-site for disaster recovery purposes.
- **Shorten backup windows and improve device utilization:** The Plug-in *for Red Hat Virtualization* speeds VM backups with high-performance Incremental and Differential Backups for data stored in VMs.

Feature summary

- Allows Full, Differential, and Incremental crash-consistent backups of Windows and Linux-based VMs

- Reduces backup windows by backing up multiple VMs in parallel
- Offers ease of use with point-and-click GUI
- Allows restores from backups
- Supports deletion of and restore of VM to its original location
- Restores complete VM images
- Relocate VM to alternate RHV cluster and storage domain

Target audience

This guide is intended for users who are responsible for the backup and recovery of RHV VMs. Familiarity with RHV administration and the operating system (OS) under which the VMs are running is assumed. Advanced knowledge of RHV is useful for defining an efficient backup and recovery strategy for the VMs.

Recommended additional reading

- **NetVault documentation:**
 - *Quest NetVault Installation Guide:* This guide provides information about installing the NetVault Server and Client software.
 - *Quest NetVault Administrator's Guide:* This guide provides information about configuring and using NetVault to protect your data. It provides comprehensive information about all NetVault features and functionality.

You can download the complete set of NetVault documentation from <https://support.quest.com/technical-documents>.

- **RHV documentation:** You can download the documentation from <https://access.redhat.com/documentation/en-us/>.

Installing and removing the plug-in

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Deployment overview

Each RHV cluster that you want to protect requires that you define a Red Hat Virtualization Manager (RHV-M) associated with that cluster and a backup proxy VM in that cluster.

- **RHV-M:** The RHV-M provides the access point for an RHV cluster. You must define an RHV-M for each RHV cluster and provide credentials for the RHV-M when configuring the Plug-in *for Red Hat Virtualization* on the backup proxy VM. The RHV backup proxy VM connects to RHV using the RHV-M to list, back up, and restore the VMs on this cluster.
- **Backup proxy:** The backup proxy accesses the storage container associated with the RHV cluster. You must create a Windows backup proxy VM for each cluster that you want to protect. You should install the NetVault Client on this VM, and then deploy the Plug-in *for Red Hat Virtualization* on this VM. This configuration works with all types of storage devices, including local storage on the Red Hat Virtualization Server. You must create a Windows-based backup proxy for each cluster that you want to protect. The number of CPU cores of the Windows proxy VM should be greater than the number of streams you select for backup.

Prerequisites

Before installing the plug-in, verify that the following requirements are met:

- **Create a Windows VM:** Create a Windows VM on the cluster that you want to protect. Note the name of the VM from the RHV-M.
- **Install NetVault Client:** Install the NetVault Client software on the VM on which you want to install the Plug-in *for Red Hat Virtualization*. Make sure that this machine uses Windows Server 2016 or later. Complete this requirement for each machine that functions as a backup proxy for each cluster.
- **Configure DNS entries on the NetVault Client:** On each NetVault Client that functions as a backup proxy, configure Domain Name System (DNS) entries for RHV-M. RHV requires this information and that the RHV-M be accessible by host name rather than its IP address.
- **Add the NetVault Client:** Add the designated client to the NetVault Server.
- **Define an RHV-M for each cluster and storage domain:** Make sure that RHV-M is defined for each RHV cluster and storage domain that you want to protect, and make note of the RHV-M credentials. This information is required to configure the Plug-in *for Red Hat Virtualization*.

! **NOTE:** Configuring the Plug-in *for Red Hat Virtualization* requires user credentials with administrator rights.

For more information about installing or adding the NetVault Client, see the *Quest NetVault Installation Guide*.

Installing the plug-in

The following topic describes the process for installing the plug-in on a single client. If you have multiple clients of the same type, you can use the NetVault Configuration Wizard to install the plug-in on multiple clients at the same time. For more information on using push installation to update multiple clients at the same time, see the *Quest NetVault Administrator's Guide*.

- 1 In the Navigation pane, click **Manage Clients**.
- 2 On the **Manage Clients** page, select the Windows-based machine on which the NetVault Client is installed, and click **Manage**.
- 3 On the **View Client** page, click the **Install Plugin** button (.
- 4 Click **Choose Plug-in File**, navigate to the location of the “.npx” installation file for the plug-in, for example, on the installation CD or the directory to which the file was downloaded from the website.
Based on the OS in use, the path for this software may vary on the installation CD.
- 5 Select the file entitled “-x-x-x-x-**WindowsPure64.npx**,” where **x-x-x-x** represents the version number and platform,; for example, rhv-13-0-0-x-WindowsPure64.npx.
- 6 Click **Open**.
- 7 To begin installation, click **Install Plugin**.

After the plug-in is successfully installed, a message is displayed.

Removing the plug-in

- 1 In the Navigation pane, click **Manage Clients**.
- 2 In the **NetVault Clients** list, select the client, and click **Manage**.
- 3 In the **Installed Plug-ins** table, select Quest® NetVault® Plug-in for Red Hat Virtualization® and click the **Remove Plugin** button (.
- 4 In the **Confirm** dialog box, click **Remove**.

Configuring the plug-in

- [Adding a server](#)
- [Reconfiguring a server](#)
- [Removing a server](#)

Adding a server

Plug-in for *Red Hat Virtualization* communicates with RHV using the RHV-M. Before you can use the plug-in for backups and restores, you must add the applicable RHV-M details to the plug-in. You must then configure a user account to be an admin user or have admin rights.

- 1 In the Navigation pane, do one of the following:
 - Click **Create Backup Job**.
 - Click **Guided Configuration**. On the **NetVault Configuration Wizard** page, click **Create Backup Jobs**.
- 2 To open the **NetVault Selections** page, click **+** next to the **Selections** list.
- 3 Open the NetVault Client on which the plug-in is installed.
- 4 Click **RHV**, and then select **Add** from the context menu.
- 5 Configure the following settings:
 - **RHV-Manager FQDN**: Type the Fully Qualified Domain Name (FQDN) of the RHV-M. As required by RHV, the backup proxy on which the plug-in is configured should be able to communicate with this FQDN using the previously configured DNS.
 - **Username**: Enter the name for the user account that can be used to log in to the RHV-M. The user account must have administrator privileges to create VMs and related devices.
 - **Domain**: Enter the name of the domain use by RHV-M. The default name is **internal**.
 - **Password (New Password when reconfiguring the server)**: Type the corresponding password for the preceding user name.
 - **Port**: The port on which the RHV-M UI runs. The default is 443.
 - **Windows Proxy on RHV Host**: Enter the name of the Windows proxy as it appears in the RHV user interface.
- 6 To save the settings, click **OK**.

The plug-in tries to log in to the server, and if successful, adds the server to the backup selection tree.

Reconfiguring a server

- 1 Start the Backup Job Wizard, and click **+** next to the **Selections** list.

- 2 Open the NetVault Client or the NetVault Server where the Plug-in *for Red Hat Virtualization* is installed, and then open **RHV plug-in**.
- 3 Click the RHV DataCenter, and select **Edit Server** from the context menu.
- 4 Reconfigure the applicable settings.
For more information about these settings, see [Adding a server](#).
- 5 To save the new settings, click **OK**.

Removing a server

- 1 Start the Backup Job Wizard, and click **+** next to the **Selections** list.
- 2 Open the NetVault Client or the NetVault Server where the Plug-in *for Red Hat Virtualization* is installed, and then open **RHV plug-in**.
- 3 Click the server, and select **Remove Server** from the context menu.
- 4 In the confirmation dialog box, click **OK**.

Backing up data

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- [Backup and recovery strategy](#)
- [Adding patterns to use for inclusion and exclusion of VMs](#)
- [Performing backups](#)
- [Using backup policies](#)

About backup methods and types

Backups use the RHV snapshot technology to provide point-in-time images of VMs. This includes all disk and configuration information of a VM. You can use these backups to perform the following types of recoveries:

- Recover a full VM to a previous known state.
- Restore one or more virtual disks for a VM along with the VM.
- Restore one or more virtual disks to another VM in the same cluster and storage domain.
- Relocate a VM to another cluster or storage domain.

The following backup types are supported:

- **Full Backup:** A Full Backup provides a backup of all disk blocks on a virtual disk. Full Backups take longer to complete and consume more backup media. These backups serve as the base backup for future Incremental and Differential backups.
- **Differential Backup:** A Differential Backup provides a backup of disk blocks that have changed since the last Full Backup. Differential Backups speed up recovery because the plug-in is only required to restore two savesets.
- **Incremental Backup:** An Incremental Backup provides a backup of disk blocks that have changed since the last Full or Incremental Backup. Incremental Backups consume minimum storage space and are quicker to perform. However, data recovery can take more time depending on the number of savesets that the plug-in is required to restore.

Important considerations

When employing Plug-in *for Red Hat Virtualization*, it is important to consider the following caveats:

- The plug-in cannot perform backups in the following scenarios:
 - When the RHV-M is inaccessible.
 - If the Windows backup proxy is not operational.
- The plug-in does not back up the following items:
 - Windows backup proxy VM
 - Shared disks

- A valid RHV-M name includes alphanumeric and “.”, “-”, “_” special characters only. RHV supports no other special characters.
- Before backing up a Windows VM with multiple dynamic disks, confirm that the SAN policy is set to OnlineAll. You must set the SAN policy through the Windows administrator user.
- To back up VMs with large disks, use four or less streams.

Backup and recovery strategy

A well-designed backup strategy helps you recover from the damages caused by failure and resume normal operations as quickly as possible. Before you start backing up your data, ensure that a good strategy is in place that safeguards your data against various failure modes, such as media failure, data corruption, user error, and complete loss of a data center.

Your backup plan should define what backup methods are used, when and at what intervals the backups are performed, how backups are stored, how long backups are retained, and how the backup media are reused.

The following are some example backup sequences to offer you guidelines:

- **Full Backups only:** You can choose to perform only Full Backups if the backup size is small, backup window is not an issue, or storage media is not a constraint. In such scenarios, you can schedule Full Backups every night or every <n> hours depending on the frequency of updates.

If a failure occurs, the plug-in is only required to restore a single saveset.

- **Full and Incremental Backups:** For quicker backups and minimum use of storage media, you can include Full and Incremental Backups in your strategy. For example, you can schedule Full Backups every Sunday and Incremental Backups every day or every <n> hours depending on the frequency of updates.

If a failure occurs, the plug-in is required to restore data from the recent Full Backup and each Incremental Backup in the backup sequence. The restore might take longer if several Incremental savesets have to be restored. For example, if the failure occurs on Saturday, the plug-in is required to restore the Full Backup taken on Sunday and Incremental Backups taken from Monday through Friday.

- **Full and Differential Backups:** For quicker restores and reduced media usage, you can include Full and Differential Backups in your strategy. For example, you can schedule Full Backups every Sunday and Differential Backups every day or every <n> hours depending on the frequency of updates.

If a failure occurs, the plug-in is required to restore data from the recent Full Backup and the last Differential Backup.

Adding patterns to use for inclusion and exclusion of VMs

In addition to selecting VMs from the backup selection tree, you can create and store patterns of VM names for inclusion and exclusion from backup jobs. When you specify VM name patterns to include or exclude, or both, the plug-in stores them with a Backup Selection Set. When you submit a backup job, you can select the set with the stored patterns. The plug-in then populates the backup list with VMs whose names match the specified pattern or patterns.

- IMPORTANT:** During a backup job, the plug-in applies the inclusion and exclusion feature only to the VMs specified in the Backup selection set.
Selecting an RHV host and patterns selects all of the VMs of the selected host.

To add patterns:

- 1 In the Navigation pane, click **Create Backup Job**.
- 2 Next to the **Selections** list, click **+**.
- 3 In the list of plug-ins on the **NetVault Selections** page, open **RHV Plugin** then the DataCenter, and then the cluster. Under the hosts, select the VMs that you want to back up.

Below the cluster node, the plug-in displays two additional items along with the hosts in the clusters, **Specify Inclusions** and **Specify Exclusions**. Clicking **Specify Inclusions** displays additional options, such as **Show include patterns** and **Add include pattern**. After you have selected **Show include patterns**, the option changes to **Hide include pattern**. Clicking **Specify Exclusion** displays additional options, such as **Show exclude patterns** and **Add exclude pattern**. After you have selected **Show exclude patterns**, the option changes to **Hide exclude pattern**. As you add patterns, the plug-in displays an informational node for each saved pattern.

- NOTE:** To apply the inclusion and exclusion patterns to all VMs on a host, select the RHV host.

- 4 To add a pattern that you want to include in a backup, click **Add include pattern**.
- 5 In the **Enter include pattern** dialog box, type the pattern that you want the plug-in to search for.
Use the regex pattern to include VMs that conform to the specified pattern. For example, if you want the plug-in to include all of the VMs that start with SQL, type (SQL).*
- 6 To save the pattern, click **OK**.
- 7 Repeat [Step 4](#) through [Step 6](#) for each pattern that you want to add for inclusion.
- 8 To add a pattern that you want to exclude from a backup, click **Add exclude pattern**.
- 9 In the **Enter exclude pattern** dialog box, type the pattern that you want the plug-in to search for using the same guidelines described previously for include patterns, and then click **OK**.
Continuing with the previous example, if you want the plug-in to locate all VMs that start with **SQL** but exclude specific versions of the SQL Server VMs, type the complete name of the VM that you want to exclude, such as **SQLQATest1**.
- 10 Repeat [Step 8](#) and [Step 9](#) for each pattern that you want to add for exclusion.
- 11 When you are finished, select all required VMs under the hosts, and select the applicable inclusion and exclusion patterns.
- 12 Click **Save**, enter a name in the **Create New Set** dialog box, and click **Save**.

The name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. On Windows, there is no length restriction. However, a maximum of 40 characters is recommended on all platforms.

Performing backups

i | **IMPORTANT:** RHV may prohibit snapshots for some VMs, which makes those VMs unavailable to select for backups.

RHV does not allow snapshots of VMs with a “Stateless” or “Suspended” status.

- 1 In the Navigation pane, click **Create Backup Job** to start the configuration wizard.

You can also start the wizard from the Guided Configuration link. In the Navigation pane, click **Guided Configuration**. On the **NetVault Configuration Wizard** page, click **Create backup jobs**.

- 2 In **Job Name**, specify a name for the job.

Assign a descriptive name that lets you easily identify the job for monitoring its progress or restoring data. A job name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. There is no length restriction. However, a maximum of 40 characters is recommended on all platforms.

- 3 Next to the **Selections** list, click **+**.

- 4 Open the NetVault Client on which the plug-in is installed, and then open **RHV plug-in**.

- 5 Open the RHV Data Center, and then open the RHV Cluster.

A list of RHV hosts with running VMs displays along with Switched Off VMs, and the Specify Inclusion and Specify Exclusion options.

i | **NOTE:** The RHV host displays only if it has running VMs. VMs that are not running appear under Switched Off VMs..

- 6 From the list of RHV host nodes and Switched Off VMs, select one or more of the VMs, that you want to back up.

i | **NOTE:** To select all running VMs on a host, select the host.

- 7 Click **Save**, enter a name in the **Create New Set** dialog box, and click **Save**.

A set name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. On Windows OS, there is no length restriction. However, a maximum of 40 characters is recommended.

- 8 In the **Plugin Options** list, select an existing Backup Options Set, or complete the following steps to create a set:

- a Next to the **Plugin Options** list, click **+**.

- b Select the **Backup Type**:

- **Full:** This option backs up a VM configuration and its associated disks. It applies to all of the VMs selected in the selection set. A Full Backup depends on no other backups and can be restored in one step. If this is the first backup for the selection, you must select this option.
- **Incremental:** This option backs up the current VM configuration and only the disk blocks for all disks of a VM that have changed since the last Full or Incremental Backup. This method applies to all VMs selected in the selection set.
- **Differential:** This option backs up the current VM configuration and the disk blocks for all disks of a VM that have changed since the last Full Backup. This method applies to all VMs selected in the selection set.

- c In the Maximum Number of Parallel Streams box, select the required number. The default is 8. The maximum is 16.

i | **NOTE:** The number of CPU cores of the Windows proxy VM should be greater than the number of streams you select for backup.
To back up VMs with large disks, use four or less streams.

d In **Set Name**, specify a name for the set, and click **Save**.

A set name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. On Windows OS, there is no length restriction. However, a maximum of 40 characters is recommended.

9 Select or create the Schedule Set, Target Set, and Advanced Options Set.

For more information about these sets, see the *Quest NetVault Administrator's Guide*.

10 To submit the job for scheduling, click **Save & Submit**.

To save the job definition without scheduling it, click **Save**. You can view, edit, or run this job from the **Manage Job Definitions** page. This job is not displayed on the **Job Status** page until you submit it.

You can monitor the job progress from the **Job Status** page and view the logs from the **View Logs** page.

i | **NOTE:** If you add a VM to the Backup Selection Set after the initial Full Backup or any subsequent Incremental or Differential Backup, the plug-in does the following:

- Creates a Full Backup of the new VM if you run an Incremental or Differential Backup.
- For subsequent Differential Backups, runs a Full Backup of the new VM.
- For subsequent Incremental Backups, runs an Incremental Backup of the new VM.

Example:

- 1 Select any VM, for example, MyVM1, and create a Backup Selection Set, for example, MySelectionSet.
- 2 Run a Full Backup using MySelectionSet.
- 3 Modify MySelectionSet, and add a VM, for example, MyVM2.
- 4 Run an Incremental or Differential Backup using MySelectionSet.
- 5 Run another Incremental Backup or Differential using MySelectionSet.

As a result, when you select **Incremental Backup** for the **Backup Type**, the plug-in creates a Full Backup of MyVM2 in [Step 4](#) and an Incremental of that VM in [Step 5](#). When you select **Differential Backup** for the **Backup Type**, the plug-in creates a Full Backup of MyVM2 in [Step 4](#) and [Step 5](#).

For more information about **Job Status**, **View Logs**, and **Manage Job Definitions**, see the *Quest NetVault Administrator's Guide*.

Using backup policies

You can use policies to submit one or more jobs that target one or more similar clients. The following procedure outlines the basic process. For more information, see the *Quest NetVault Administrator's Guide*.

- 1 In the Navigation pane, click **Manage Policies**.
- 2 On the **Manage Policies** page, click the browse button, and select **Add**.
- 3 Enter a **Policy Name**, and click **Add job**.
- 4 On the **Create Policy Job** page, complete the applicable sections, and click **Save**.

i | **TIP:** You can use the inclusion- and exclusion-pattern feature to select which VMs to back up. For more information, see [Adding patterns to use for inclusion and exclusion of VMs](#).

- 5 Click **Add Clients**, and select the applicable RHV clients.
- 6 To save the policy definition, click **Save Policy**.

Restoring data

- [Restoring image-level backups](#)
- [Renaming and relocating a VM during restore](#)

Restoring image-level backups

Before you begin an image-level restore, which restores an entire VM, verify that the names of the VMs that you want to restore uses only alphanumeric and “.”, “-”, and “_” characters in their names:

i | **IMPORTANT:** Plug-in *for Red Hat Virtualization* does not restore RHV Guest Agents as part of the recovery process.

The plug-in excludes shared disks from backups, which makes them unavailable for a restore.

1 In the Navigation pane, click **Create Restore Job**.

2 To filter the items displayed in the saveset table, click **Filter** .

The table displays the saveset name (job title and saveset ID), creation date and time, size, and catalog status. By default, the list is sorted by creation date.

3 In the saveset table, select the applicable saveset.

When you select a saveset, the following details are displayed in the **Saveset Information** area: Job ID, job title, server name, client name, plug-in name, saveset date and time, retirement setting, Incremental Backup or not, Archive or not, saveset size, and snapshot-based backup or not.

4 Select one of the following options:

- **Restore All Using Defaults:** To restore all VMs from the saveset using the prepopulated defaults, click this button, and proceed to [Step 6](#).
- **Restore:** To use the **Create Selection Set** page to select the items that you want to restore, click this button and proceed to the next step.

5 On the **Create Selection Set** page, expand the selection tree, select the VMs that you need to restore.

To restore only specific disks, expand the VM and select the disks that you need to restore.

i | **NOTE:** If you select an Incremental or Differential Backup, the plug-in automatically restores all savesets in the backup sequence up to the selected saveset.

You must select at least one bootable disk for the VM to start.

6 Click .

7 In the **Plug-in for Red Hat Virtualization Restore Options** dialog box, configure the following applicable options:

- **Recover entire VM:** To restore a VM and one or more virtual disks to the same cluster, select this option.
- **Recover Disk:** To restore one or more disks of the selected VMs, select this option.

i | **NOTE:** If you select an IDE interface to restore to another VM, then you should power off that VM.

- In the **VM to restore disk to** text box, enter the name of a VM that exists in the same RHV cluster and storage domain as the backup proxy VM.

i | **NOTE:** If you select a bootable disk to restore to another VM, then that disk becomes not bootable after you restore it to the other VM.

- **Power-on VM after recovery:** If you selected **Recover entire VM** and you want to enable power to the VM after the restore is successfully completed, select this option.
- **Delete original VM after recovery:** If you selected **Recover entire VM** and you want to delete the original VM, select this option.
- **VM to restore disk to:** Only if you selected Restore Disk, enter the name of a VM that exists in the same RHV cluster and storage domain as the backup proxy VM.

8 To save the settings, click **OK**, and then click **Next**.

9 In **Job Name**, specify a name for the job.

Assign a descriptive name that lets you easily identify the job for monitoring its progress. A job name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. There is no length restriction. However, a maximum of 40 characters is recommended on all platforms

10 In the **Target Client** list, verify that the client from which data was backed up is selected.

This client is selected by default. Do *not* change this setting.

11 Select or create the Schedule Set, Restore Source Set, and Advanced Options Set.

For more information about these sets, see the *Quest NetVault Administrator's Guide*.

12 To submit the job for scheduling, click **Submit**.

You can monitor the job progress from the **Job Status** page and view the logs from the **View Logs** page. For more information about these functions, see the *Quest NetVault Administrator's Guide*.

Renaming and relocating a VM during restore

The plug-in lets you restore a VM to a different name and location. The renaming of a VM can be useful if you do not want to overwrite the existing version. You can relocate a VM to a new cluster and storage domain, provided that the storage domain has a Windows backup proxy with NetVault client and Plug-in for Red Hat Virtualization running on it.

Restoring a VM to an alternate cluster and storage domain

This functionality is useful during disaster recovery operations. You can restore a VM to an alternate RHV cluster and storage domain.

Before you begin this process, verify that the following requirements are met on the new restore target:

- **Common RHV Manager:** The RHV Manager (RHV-M) should be common between the new and old cluster and storage domain.

- **Compatible RHV host versions:** The RHV host version should be the same between the new and old cluster and storage domain.
- **NetVault Plug-in for Red Hat Virtualization is installed:** Ensure that the same version of NetVault software and NetVault Plug-in for Red Hat Virtualization are installed and configured on the new restore target.
- **NetVault Client is added to the NetVault Server:** Add the target machine to the NetVault Server using the Manage Clients page of the NetVault Web UI.

To restore a VM to an alternate cluster and storage domain

- 1 In the Navigation pane, click **Create Restore Job**.
- 2 To filter the items displayed in the saveset table, click **Filter** .

The table displays the saveset name (job title and saveset ID), creation date and time, size, and catalog status. By default, the list is sorted by creation date.
- 3 In the saveset table, select the applicable saveset.

When you select a saveset, the following details are displayed in the **Saveset Information** area: Job ID, job title, server name, client name, plug-in name, saveset date and time, retirement setting, Incremental Backup or not, Archive or not, saveset size, and snapshot-based backup or not.
- 4 Click **Restore**.
- 5 On the **Create Selection Set** page, expand the selection tree, click the VM that you want to rename and relocate, and select **Rename** from the context menu.
- 6 In the **Rename/Relocate** dialog box, complete either or both fields:

- **Rename:** Enter the new name. The new name should have only alphanumeric and “.”, “-”, and “_” characters in accordance with RHV restrictions.
- **Relocate:** Enter the new cluster name and storage domain name as a key-value pair in the following format:

```
NewClusterName=<RHV-Cluster-Name>;NewStorageDomainName=<RHV-Storage-Domain-Name>
```

 **NOTE:** The cluster and storage domain must be related and valid. You must provide both the cluster and storage domain, even if one of the key values is the same as the older value. The key names must follow the formatting in the example, including case.

- 7 To apply your changes, click **OK**.

The VM name is accompanied by the rename and relocate information in parentheses.
- 8 Click .
- 9 Configure the applicable options in the **Plug-in for Red Hat Virtualization Restore Options** dialog box.
 - **Recover entire VM:** To restore a VM or one or more virtual disks to the same cluster, select this option.
 - **Recover disks only:** To restore one or more virtual disks to the same cluster, select this option.
 - **Delete original VM:** If you selected **Recover entire VM** and you want to delete the original VM, select this option.
 - **Power On VM:** If you selected **Recover entire VM** and you want to enable power to the VM after the restore is successfully completed, select this option.
- 10 To save the settings, click **OK**, and then click **Next**.
- 11 In **Job Name**, specify a name for the job.

Assign a descriptive name that lets you easily identify the job for monitoring its progress. A job name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. There is no length restriction. However, a maximum of 40 characters is recommended on all platforms

12 In the **Target Client** list, to relocate the VM to an alternate RHV server, select the alternate RHV server where the NetVault Plug-in *for Red Hat Virtualization* is running.

13 Select or create the Schedule Set, Restore Source Set, and Advanced Options Set.

For more information about these sets, see the *Quest NetVault Administrator's Guide*.

14 To submit the job for scheduling, click **Submit**.

You can monitor the job progress from the **Job Status** page and view the logs from the **View Logs** page. For more information about these functions, see the *Quest NetVault Administrator's Guide*.

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Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.com>.

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- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.