

Quest[®] NetVault[®] Backup Plug-in *for Nutanix AHV* 12.4 **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.
- **i IMPORTANT NOTE, NOTE, TIP, MOBILE**, or **VIDEO:** An information icon indicates supporting information.

NetVault Backup Plug-in *for Nutanix AHV* User's Guide Updated - September 2019 Software Version - 12.4

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Introducing NetVault Backup Plug-in for Nutanix AHV

- NetVault Backup Plug-in for Nutanix AHV: at a glance
- Key benefits
- Feature summary
- Target audience
- Recommended additional reading

NetVault Backup Plug-in *for Nutanix AHV*: at a glance

Quest[®] NetVault[®] Backup Plug-in *for Nutanix AHV* (Plug-in *for Nutanix AHV*) uses a web-based user interface (WebUI) and automated workflow process to support a centralized way for configuring backup and restore policies for virtual environments. The plug-in offers a detailed level of control that minimizes downtime by letting you restore complete virtual machine (VM) images or individual disks. Through integration with a range of backup devices, your data is protected and stored offsite to meet your disaster-recovery and business-continuity goals.

Key benefits

- Increase confidence when deploying the plug-in: Plug-in for Nutanix AHV is flexible enough to account
 for many recovery scenarios. By relying on the plug-in to implement your backup policies, you can focus on
 more critical tasks without risking your ability to recover what is needed if a failure occurs.
 Plug-in for Nutanix AHV also empowers you to create a comprehensive and flexible backup policy and
 reduces the need for scripting, which may increase the risk of syntax or human errors.
- Reduce risk with flexible backup and recovery options: Plug-in *for Nutanix AHV* equips administrators with a powerful set of tools to simplify backup and recovery of business-critical VMs. Crash-consistent snapshots protect VMs with file-level consistency. Application-consistent snapshots protect VMs with application-level consistency. Full image-level backups protect the VM from failures while also providing flexibility to support test environments and disaster recoveries. Individual-disk recovery supports the attachment of a disk to an applicable VM, which provides the flexibility of restoring a disk instead of a complete VM. Plug-in *for Nutanix AHV* offers the choice to restore a complete VM image or individual disks.
- Shorten backup windows and improve device usage: Plug-in for Nutanix AHV speeds VM image-level backups with high-performance Incremental and Differential Backups for data stored in VMs. The plug-in uses the Change Regions API from Nutanix to track changed data, thereby backing up only changed data.
- Maximize information technology (IT) efficiency: Plug-in for Nutanix AHV reduces administrator involvement in the recovery process while delivering faster and more reliable recoveries. Less-experienced personnel can initiate restores, thus reducing downtime and improving business continuity and freeing

administrators from being available 24x7. Less-experienced personnel can also perform routine administrative options, thus empowering administrators to create comprehensive backup policies with a reduced need to understand Plug-in *for Nutanix AHV* internals. The plug-in uses an automated workflow with point-and-click options for tasks such as defining backups and submitting job scheduling.

 Ensure business continuity: With offsite backups being an important part of the data-protection plan for business-critical applications, the plug-in takes advantage of NetVault Backup's integration with a range of backup devices. Plug-in for Nutanix AHV gives you the confidence that your virtualized environments are protected and stored offsite for disaster-recovery purposes.

Feature summary

- Acropolis Hypervisor (AHV) on a cluster running the Acropolis Operating System (AOS)
- · Crash-consistent and application-consistent backups
- Single plug-in for image-level backups and restores
- · Disk-level restores from image-level backups
- · Support for inclusion and exclusion configuration of VM names for use with backup selection
- Support for policy-based backups
- Restores of complete VM image or individual disks
- · Optional automatic power-on setting for VMs after recovery of image-level backups
- Rename a VM during image-level recovery
- · Relocate a VM to a different storage container during image-level or disk recovery
- · Optional automatic deletion of the original VM from the Nutanix cluster after successful restore

Target audience

This guide is intended for users who are responsible for the backup and recovery of VMs. Familiarity with the Windows operating system (OS) under which Plug-in *for Nutanix AHV* is running is assumed. Advanced knowledge of VMs is useful for defining an efficient backup-and-recovery strategy.

Recommended additional reading

Quest recommends that you have the following documentation available for reference while setting up and using this plug-in.

- Quest NetVault Backup Installation Guide: This guide provides details on installing the NetVault Backup Server and Client software.
- Quest NetVault Backup Administrator's Guide: This guide explains how to use NetVault Backup and describes the functionality common to all plug-ins.
- Quest NetVault Backup CLI Reference Guide: This guide provides a description of the command-line utilities.

You can download these guides from https://support.guest.com/technical-documents.

Installing or removing the plug-in

- Deploying the plug-in
- Prerequisites for installing the plug-in
- Installing or upgrading the plug-in
- Licensing the plug-in
- Removing the plug-in

Deploying the plug-in

You should install the plug-in on the VM that is running in the Nutanix AHV cluster. Throughout this document, this VM is referred to as the Backup Proxy. The Nutanix cluster is the collection of physical nodes that hosts the VMs— the plug-in is **not** installed on each of the protected VMs. One plug-in is enough to manage a multi-node cluster.

Prerequisites for installing the plug-in

Before installing the plug-in, verify that the following prerequisites are met on the Backup Proxy.

- Make sure that Backup Proxy is part of the Nutanix AHV cluster that you intend to protect: Before you install the NetVault Backup components, create the Windows VM on the Nutanix AHV cluster, make sure that network settings are complete, and that the Backup Proxy has an IP address.
- Install NetVault Backup Server and Client software: At a minimum, the NetVault Backup Client software must be installed on the Backup Proxy. For instructions on installing the NetVault Backup Client software and adding the Nutanix Server as a Heterogeneous Client, see the *Quest NetVault Backup Installation Guide*.

Installing or upgrading the plug-in

- 1 Access the NetVault Configuration Wizard or Manage Clients page.
 - i NOTE: If the selected clients are all the same type, you can use the configuration wizard to install the plug-in on multiple clients at the same time. From the **Manage Clients** page, you can only select one client for plug-in installation.
 - To access the NetVault Configuration Wizard page:
 - a In the Navigation pane, click Guided Configuration.
 - b On the NetVault Configuration Wizard page, click Install Plugins.
 - c On the next page, select the applicable clients.

- To access the Manage Clients page:
 - a In the Navigation pane, click Manage Clients.
 - b On the **Manage Clients** page, select the machine that contains the Nutanix Server, and click **Manage**.
 - c On the View Client page, click the Install Plugin button (...).
- 2 Click **Choose Plug-in File**, and navigate to the location of the "**.npk**" installation file for the plug-in—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.

- 3 Select the file entitled "**nu-x-x-x-x.npk**," where **xxxxx** represents the version number and platform, and click **Open**.
- 4 To begin installation, click Install Plugin.

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

Licensing the plug-in

Apply the license to the Backup Proxy. For information about the licensing process, including how to obtain the proper license keys, see the *Quest NetVault Backup Installation Guide*.

Removing the plug-in

For details on removing the Plug-in *for Nutanix AHV* in a clustered environment, see the applicable topic on working with client clusters in the *Quest NetVault Backup Administrator's Guide*.

- 1 In the Navigation pane, click Manage Clients.
- 2 On the Manage Clients page, select the applicable client, and click Manage.
- 3 In the **Installed Software** table on the **View Client** page, select **Plug-in** *for Nutanix AHV*, and click the **Remove Plugin** button ().
- 4 In the Confirm dialog box, click Remove.

Configuring the plug-in

- 1 In the Navigation Pane, click **Create Backup Job**, and click **+** next to the **Selections** list.
- 2 In the selection tree, open the applicable client node.
- 3 Click Nutanix Plugin, and select Configure from the context menu.
- 4 Enter the following information:
 - Cluster IP/FQDN: Enter the IP address or fully qualified domain name (FQDN) of the cluster.
 - Port No: Enter the port number used by the cluster.
 - **Username:** Enter the account name that has the permission and privileges required for administering the cluster and Nutanix; that is, a domain-administrator account.
 - Password: Enter the password associated with the user specified in the preceding field.
- 5 To save the settings, click **OK**.

Backing up data

- Backing up data: an overview
- Adding patterns to use for inclusion and exclusion of VMs
- Performing backups
- Using backup policies

Backing up data: an overview

Plug-in *for Nutanix AHV* supports image-level backups and restores. An image-level backup includes all disk and configuration information of a given VM, enabling restoration of the entire VM. You can use this type of backup if hardware fails or VM disks are deleted.

Important considerations

- · Backups cannot be performed if the Nutanix cluster is inaccessible.
- The plug-in supports application-consistent backups, which is useful for taking the consistent state of the applications running inside the VM. The plug-in also supports crash-consistent backups.

i IMPORTANT: For application-consistent snapshots, the protected VM must have Nutanix guest tools (NGT) installed. If NGT is not installed, application-consistent backups are converted to crash-consistent.

In addition to supporting the use of spaces within the name of a VM, the following characters are also supported:: A–Z, a–z, 0–9, ! # % ^ () - _ + = . { };

Be aware of the following guidelines and exceptions:

- Names are case-sensitive.
- Due to a Nutanix REST API restriction, the plug-in does not support names that exceed 64characters.
- The inclusion and exclusion features do not support the use of spaces at the beginning or end of a VM name pattern.
- The behavior of unsupported characters is unpredictable.

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 machines specified in the Backup selection set.

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 Backup Selections** page, open **Nutanix Plugin** and select the *<clusterIP>* or *<clusterFQDN>* nodes that you want to back up.

Below the *<clusterIP>* or *<clusterFQDN>* node, the plug-in displays two additional items, **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**. 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.

- 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 *<clusterIP>* or *<clusterFQDN>* node, 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

The procedure for performing image-level backups includes the steps outlined in the following topics.

- Selecting data for a backup
- Setting backup options
- Finalizing and submitting the job

Selecting data for a backup

You must use sets—Backup Selection Set, Backup Options Set, Schedule Set, Target Set, and Advanced Options Set—to create a backup job.

- i | TIP: To use an existing set, click Create Backup Job, and select the set from the Selections list.
 - 1 In the Navigation pane, click Create Backup Job.

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 when monitoring its progress or restoring data. The job 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.

- 3 Next to the Selections list, click +.
- 4 In the list of plug-ins on the **NetVault Backup Selections** page, open **Nutanix AHV**, and expand the *<clusterIP>* or *<clusterFQDN>* node to display the list of VM and Host nodes.

TIP: The plug-in supports two types of inventory view for browsing: Host View and VM View. To change the inventory view, click the Nutanix cluster node.

- 5 Choose one of the following:
 - Select the <clusterIP> or <clusterFQDN> node to include every VM that exists at the time of backup.
 - Select the applicable <host> nodes to include every VM that resides on the selected host nodes.
 - Select individual VMs to back up a specific set of VMs.
 - **IMPORTANT:** If VMs are explicitly selected with a green check mark, only the selected VMs are included in the backup, even if new VMs have been added to the Nutanix Server since the last backup.

If you are performing an Incremental or Differential Backup, select the Backup Selection Set of the last Full Backup.

6 Click Save to save the set, 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. There is no length restriction. However, a maximum of 40 characters is recommended.

Setting backup options

The next step involves creating the Backup Options Set or selecting an existing one.

TIP: To use an existing set, in the **Plugin Options** list, select the set that you want to use.

To select the backup options:

- 1 Next to the **Plugin Options** list, click +.
- 2 In the Backup Type section, select Full, Incremental, or Differential, whichever is applicable.

A Full Backup performs a complete backup of the set of items that have been selected. A Full Backup does not depend on any other backup and can be restored in a single step. An Incremental Backup backs up the set of items that have changed since the last backup. A Differential Backup backs up the set of items that have changed since the last Full Backup.

3 In the Maximum Number of Parallel Streams box, enter the applicable number.

The default is **4**. You can enter up to 32 to improve load balancing or performance, or both. However, if you are using tape drives, the number of parallel backup streams selected *must* be equal to or less than the number of available drives.

- 4 In the **Snapshot Type** section, select the applicable option.
 - Crash Consistent: To capture all the data on the VM at the same time, select this option.
 - Application Consistent: To capture all the data on the VM at the same time and to capture all data in memory as well as any transactions that are in process, select this option. This option is selected by default.
 - **NOTE:** If the default, **Application Consistent**, is used and the snapshot cannot be completed by the plug-in, the plug-in automatically creates a **Crash Consistent** snapshot.
- 5 Click Save, specify a name for the set 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.

Finalizing and submitting the job

- 1 Use the **Schedule**, **Target Storage**, and **Advanced Options** lists to configure any additional required options.
- 2 Click Save or Save & Submit, whichever is applicable.

TIP: To run a job that you have already created and saved, select **Manage Job Definitions** in the Navigation pane, select the applicable job, and click **Run Now**.

You can monitor progress on the **Job Status** page and view the logs on the **View Logs** page. For more information, see the *Quest NetVault Backup Administrator's Guide*.

- **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.

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 Backup 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.

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 Nutanix clients.
- 6 To save the policy definition, click Save Policy.

Restoring data

- Restoring image-level backups
- Performing disk-level recovery
- Using other restore procedures

Restoring image-level backups

You can perform an image-level recovery, which restores the entire VM. The process restores files either to their original location or to a location specified by you when you create a selection set and enter information in the Rename/Relocate dialog box.

i | IMPORTANT: Nutanix guest tools (NGT) are not restored as part of the recovery process.

This process includes the steps outlined in the following topics:

- Prerequisites for image-level restore
- Selecting data for an image-level restore
- Setting image-level restore options
- · Finalizing and submitting an image-level restore job

Prerequisites for image-level restore

Verify that the following prerequisites are met:

- The Rename feature supports a maximum of 64 characters for the VM names.
- Use the Relocate feature to move all the disks of the VM to an applicable storage container.

Selecting data for an image-level restore

- 1 In the Navigation pane, click **Create Restore Job**.
- 2 On the Create Restore Job—Choose Saveset page, select Plug-in for Nutanix AHV from the Plugin Type list.
- 3 To filter the items displayed in the saveset table further, use the Client, Date, and Job ID lists.

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

4 In the saveset table, select the applicable item.

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, and saveset size.

- 5 Click Restore All Using Defaults or Restore.
 - **TIP:** Clicking **Restore All Using Defaults** selects the entire saveset and pre-populates the details on the Create Restore Job page.
- 6 On the **Create Selection Set** page, select the *<clusterIP>* or *<clusterFQDN>* node to display the VMs, and then select one or more VMs to restore.
 - **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.

Setting image-level restore options

If you are restoring a backup that was created using an earlier version of the plug-in, complete the steps outlined in the user's guide for the corresponding version; this section only applies to the current version of the plug-in.

- 1 On the Create Selection Set page, click 🗹.
- 2 Select the applicable option, Recover entire VM to a cluster or Recover Disks Only.
- 3 If you selected **Recover entire VM to a cluster**, select the following options, if applicable:
 - If you want the recovered VM to be restarted automatically, select the Power-on VM after recovery option.
 - If you want the original VM deleted after a successful recovery, select the Delete Original VM after recovery option.

Finalizing and submitting an image-level restore job

The final steps include setting additional options on the Schedule, Source Options, and Advanced Options pages, submitting the job, and monitoring the progress through the Job Status and View Logs pages. These pages and options are common to all NetVault Backup Plug-ins. For more information, see the *Quest NetVault Backup Administrator's Guide*.

- 1 To save the settings, click **OK**, and then click **Next**.
- 2 In Job Name, specify a name for the job if you do not want to use the default setting.

Specify a detailed title that lets you easily identify the job when monitoring its progress. The 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 In the Target Client list, select the machine on which you want to restore the data.

TIP: You can also click **Choose**, and then locate and select the applicable client in the **Choose the Target Client** dialog box.

- 4 Use the **Schedule**, **Source Options**, and **Advanced Options** lists to configure any additional required options.
- 5 Click Save or Save & Submit, whichever is applicable.

You can monitor progress on the **Job Status** page and view the logs on the **View Logs** page. For more information, see the *Quest NetVault Backup Administrator's Guide*.

Performing disk-level recovery

You can restore individual disks from an image-level backup. The process includes the steps outlined in the following topics:

- Selecting data for a disk-level restore
- Setting disk-level restore options
- · Finalizing and submitting a disk-level restore job
- **i IMPORTANT:** You can select multiple disks from different VMs for a disk-level restore job. Nutanix guest tools (NGT) are not restore as part of the recovery process.

Selecting data for a disk-level restore

- 1 In the Navigation pane, click Create Restore Job.
- 2 On the Create Restore Job—Choose Saveset page, select Plug-in for Nutanix AHV from the Plugin Type list.
- 3 To filter the items displayed in the saveset table further, use the Client, Date, and Job ID lists.

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

4 In the saveset table, select the applicable item.

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, and saveset size.

- 5 Click Restore.
- 6 On the **Create Selection Set** page, expand the **VM** node to display the disks contained within, and then select one or more disks for the restore.
 - **IMPORTANT:** Do *not* use the **Rename** option in the context menu. Although the option is displayed, the plug-in ignores the **Rename** field and the restore completes with warnings.

Setting disk-level restore options

- 1 On the Create Selection Set page, click 🗹.
- 2 Select the Recover Disks Only option.
- 3 In the **Attach Restored Disk to VM** box, enter the name of the VM to which the restored disks should be attached.

Finalizing and submitting a disk-level restore job

The final steps include setting additional options on the Schedule, Source Options, and Advanced Options pages, submitting the job, and monitoring the progress through the Job Status and View Logs pages. These pages and options are common to all NetVault Backup Plug-ins. For more information, see the *Quest NetVault Backup Administrator's Guide*.

- 1 To save the settings, click **OK**, and then click **Next**.
- 2 In Job Name, specify a name for the job if you do not want to use the default setting.

Specify a detailed title that lets you easily identify the job when monitoring its progress. The 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 Use the **Schedule**, **Source Options**, and **Advanced Options** lists to configure any additional required options.
- 4 Click Save or Save & Submit, whichever is applicable.

You can monitor progress on the **Job Status** page and view the logs on the **View Logs** page. For more information, see the *Quest NetVault Backup Administrator's Guide*.

Using other restore procedures

This topic describes other restore operations that you can perform with the plug-in:

- Renaming and relocating a VM during image-level restore
- Restoring data to an alternate Nutanix Server

Renaming and relocating a VM during imagelevel 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.

- **i IMPORTANT:** If your environment uses Windows Server 2008 R2 and you use the Rename feature, the recovery does *not* include network adapters that the VM backup included.
 - 1 In the Navigation pane, click **Create Restore Job**, select **Plug-in** *for Nutanix AHV* from the **Plugin Type** list, select the applicable saveset, and click **Next**.
 - 2 On the **Create Selection Set** page, select the **<***clusterIP***>** or **<***clusterFQDN***>** node to display the VMs, and then select the VM to restore.
 - 3 With the VM selected on the Create Selection Set page, select Rename from the context menu.
 - 4 In the Rename/Relocate dialog box, complete either or both fields:
 - Rename: Enter the new name. The name supports a maximum of 64 characters.
 - **Relocate:** Enter the name of the new storage container.
 - 5 To apply your changes, click **OK**.

The VM name is accompanied by the rename and relocate information in parentheses.

6 Continue with the restore procedure as explained in Restoring image-level backups.

7 If your environment uses Windows Server 2008 R2 and the original VM included network adapters, use Nutanix Manager to add the network adapters.

Restoring data to an alternate Nutanix Server

This functionality is useful during *disaster recovery* operations. You can restore a VM to a different Nutanix Server by using the steps provided in the following topic.

- 1 Verify that the following requirements are met on the new restore target before continuing this process.
 - Compatible version of Nutanix AHV cluster installed: The Nutanix cluster version must be compatible with the version running on the existing server.
 - NetVault Backup software and the Plug-in for Nutanix AHV installed: The same version of NetVault Backup software and the plug-in must be installed and configured on the new restore target.
 - Client added to the NetVault Backup Server: The target machine must be added to the NetVault Backup Server by using the Manage Clients page of the NetVault Backup WebUI.
- 2 In the Navigation pane, click **Create Restore Job**, select **Plug-in** *for Nutanix AHV* from the **Plugin Type** list, select the applicable saveset, and click **Next**.
- 3 Select the VM to be restored from the backup saveset.
- 4 On the Create Selection Set page, click *I*, and select the Recover entire VM to host and/or cluster option.

For information about other options available, see Setting image-level restore options.

- 5 To save the settings, click **OK**, and then click **Next**.
- 6 In **Job Name**, specify a name for the job if you do not want to use the default setting.

Assign a descriptive name that lets you easily identify the job when monitoring its progress. The job 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.

- 7 In the Target Client list, select the alternate Nutanix Server.
- 8 Use the **Schedule**, **Source Options**, and **Advanced Options** lists to configure any additional required options.
- 9 Click Save or Save & Submit, whichever is applicable.

You can monitor progress on the **Job Status** page and view the logs on the **View Logs** page. For more information, see the *Quest NetVault Backup Administrator's Guide*.

10 After the restore is finished, use Nutanix Manager to import the new VM.

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- · View services to assist you with your product.