

Veritas NetBackup™ Plug-in for VMware vCenter Guide

Release 8.0

VERITAS™

Veritas NetBackup™ Plug-in for VMware vCenter Guide

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https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf

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Introduction and notes

This chapter includes the following topics:

- [About the NetBackup plug-in for VMware vCenter](#)
- [Updates to this guide for NetBackup 8.0](#)
- [Notes and recommendations on the NetBackup plug-in](#)
- [How to access the features of the NetBackup plug-in](#)

About the NetBackup plug-in for VMware vCenter

With the NetBackup plug-in for vCenter, you can use vSphere Client to monitor virtual machine backups and recover a virtual machine from a backup.

You can use the plug-in to do the following:

- View the backup status of virtual machines at various vSphere levels. For example: Datacenter, resource pool, ESXi host.
- View messages that are related to backups, such as snapshot deletion failure.
- Sort and filter the backup information and export the information for analysis.
- Recover virtual machines. (The recovery feature is optional and is not required for monitoring virtual machine backups.)

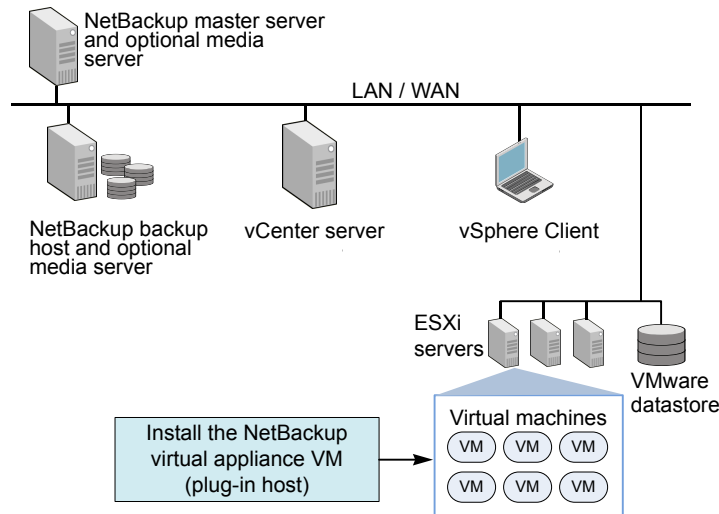
The backup information appears on the **Veritas NetBackup** tab in the vSphere Client interface.

You can start a virtual machine recovery from any of several points in the vSphere Client interface.

See [“How to access the NetBackup Recovery Wizard”](#) on page 36.

[Figure 1-1](#) shows a VMware environment with NetBackup servers and the NetBackup plug-in.

Figure 1-1 VMware environment with NetBackup plug-in



Support for ESX and ESXi

NetBackup for VMware supports both ESX and ESXi servers. In this document, any reference to ESXi also refers to ESX.

Note that VMware no longer supports ESX in the latest versions of vSphere.

For the VMware versions that the NetBackup plug-in supports:

[Support for NetBackup in virtual environments](#)

Updates to this guide for NetBackup 8.0

This guide contains the following changes:

- Directions for enabling web services and for configuring web ports on the NetBackup master server have been removed. Web services are automatically enabled when the NetBackup 8.0 (or later) master server is installed.

Note: If the NetBackup master server is earlier than 8.0, refer to the previous version of this plug-in guide for instructions on enabling web services.

See the following tech note for the web server tasks you must perform before installing the master server:

https://www.veritas.com/support/en_US/article.000081350

- Added a procedure to install an SSL certificate from a certificate authority. See [“Installing an SSL certificate from a Certificate Authority”](#) on page 19.

Notes and recommendations on the NetBackup plug-in

Note the following about the NetBackup plug-in for vCenter:

- The best screen resolution for the plug-in is 1280 x 1024 or greater.
- The plug-in does not support auto-refresh. To refresh the display, click the refresh button at the top.
- In vCenter, the default retention period for vCenter events is 180 days. This value is the recommended setting.
- The plug-in does not support use of the `https://<IP_address>:5480/` URL for setting properties.
- The plug-in does not support multiple vCenter servers. The plug-in is intended for monitoring and restoring virtual machines within one vCenter server. The plug-in Recovery Wizard can browse and restore images of virtual machines from only one vCenter.

To use the plug-in with another vCenter, you must either unregister the current vCenter or install another plug-in.

See [“Manually unregistering the NetBackup plug-in for vCenter”](#) on page 16.

- If **Enhanced Security Configuration** is enabled in Internet Explorer on the vSphere Client host, you may need to add the plug-in as a Trusted site. This step is only required when you first open the **Veritas NetBackup** tab on the vSphere Client host.
- If the plug-in virtual appliance is configured on an NFS datastore, the NFS server determines the type of disk provisioning that you can use. Note that thick provisioning may not be available.

The following VMware article contains more information:

[VMware vSphere Online Library: About Virtual Disk Formats](#)

- Depending on your firewall configuration, you may need to modify your firewall rules to allow the vSphere Client host to access the plug-in host. vSphere Client must have access to the port to which the plug-in host is configured.
Note: The default port for the plug-in host is 9445.
- If an ESXi server is removed from vCenter and is later re-added, the events for the VMs managed by that ESXi are lost. The plug-in shows the status of such

VMs as "No Backup Information." The status changes as new backup events occur for each VM.

- See [“Notes on restoring virtual machines with the NetBackup Recovery Wizard”](#) on page 35.
- When the plug-in installation completes, restart the vCenter service `VMware VirtualCenter Server` if you use vCenter 4.0.
- The plug-in monitors backups that a NetBackup VMware policy made. The plug-in does not monitor backups from other policy types.

Note the following exceptions:

- The plug-in does not monitor backups from a VMware policy that had **Use Replication Director** enabled and **Application Consistent Snapshot** disabled (under **Options**).
- The plug-in does not monitor all the copies that a storage lifecycle policy (SLP) makes: It monitors the first image only.

How to access the features of the NetBackup plug-in

[Table 1-1](#) describes the location of the NetBackup plug-in features in vSphere Client.

Table 1-1 Basic functions in the NetBackup plug-in

Feature	How to access in vSphere Client
Monitor the status of virtual machine backups	Use the Veritas NetBackup tab. See “Veritas NetBackup tab in vSphere Client” on page 22.
Restore a virtual machine	You can access the Recovery Wizard in several ways. See “How to access the NetBackup Recovery Wizard” on page 36. Note: The Recovery Wizard is optional. It is not required for monitoring virtual machine backups.

Installing the NetBackup Plug-in for vCenter

This chapter includes the following topics:

- [Requirements for the NetBackup plug-in for vCenter](#)
- [Configuration overview for the NetBackup plug-in for vCenter](#)
- [Consistent naming for the vCenter server](#)
- [Upgrading the NetBackup plug-in for vCenter](#)
- [Installing the NetBackup plug-in for vCenter](#)
- [Disabling or uninstalling the NetBackup plug-in for vCenter](#)
- [Manually unregistering the NetBackup plug-in for vCenter](#)

Requirements for the NetBackup plug-in for vCenter

For a list of supported NetBackup versions, VMware versions, and other support requirements for the plug-in, see the following document:

- *Support for NetBackup in virtual environments:*
<http://www.veritas.com/docs/000006177>

Configuration overview for the NetBackup plug-in for vCenter

[Table 2-1](#) lists NetBackup configuration requirements that are related to the plug-in.

Table 2-1 NetBackup configuration related to the plug-in

Task	Description and notes
<p>NetBackup must be configured to back up the virtual machines.</p>	<p>For example, the NetBackup administrator must configure the following:</p> <ul style="list-style-type: none"> ■ The VMware backup host (access host). ■ The NetBackup credentials for the vCenter server. <p>Note: The vCenter credentials can be entered as a fully qualified domain name or IP address. Specify the vCenter server in the same way when you install the plug-in.</p> <ul style="list-style-type: none"> ■ Policies of type VMware, with the Post events to vCenter option set to All Events. <p>The <i>NetBackup for VMware Administrator's Guide</i> contains details on setting up VMware policies.</p>

Table 2-2 lists the steps for installing the NetBackup vCenter plug-in. See the reference topic in the table for details about each step.

Table 2-2 Installing the plug-in

Step	Description	Reference topic and notes
1	<p>Install the virtual appliance and plug-in for vCenter.</p>	<p>See "Installing the NetBackup plug-in for vCenter" on page 13.</p> <p>Note: From the vSphere Client host, install the virtual appliance while you are logged into the vCenter. Network issues may occur if you are logged directly into the ESXi server.</p>
2	<p>Install the trusted SSL certificate.</p>	<p>See "Installing the trusted SSL certificate" on page 20.</p> <p>Alternatively, you can install a certificate from a certificate authority.</p> <p>See "Installing an SSL certificate from a Certificate Authority" on page 19.</p>

Table 2-3 lists the steps for setting up the NetBackup vCenter plug-in for monitoring backups.

Table 2-3 Setting up the plug-in for backup monitoring

Description	Reference topic and notes
Set vCenter privileges.	See “Setting vCenter privileges for backup monitoring” on page 22.

[Table 2-4](#) lists the steps for setting up the NetBackup vCenter plug-in for recovering virtual machines (the NetBackup Recovery Wizard).

Note: This wizard is not required for monitoring virtual machine backups.

Table 2-4 Setting up the plug-in for the NetBackup Recovery Wizard

Step	Description	Reference topic
1	Create an authentication token file.	See “Creating an authentication token” on page 31.
2	Authorize the plug-in to restore virtual machines.	See “Authorizing the plug-in to restore virtual machines” on page 33.
3	Set vCenter privileges for virtual machine recovery.	See “Setting vCenter privileges for recovering virtual machines” on page 34.

Consistent naming for the vCenter server

The name of the vCenter server must be identical in the following locations:

- In the NetBackup credentials.
- In the NetBackup plug-in installation.
- In the vCenter server installation.

If the fully qualified name of the vCenter server was not used during installation of the vCenter, do the following in vSphere Client: click **View > Administration > Server Settings**, then click **Advanced Settings**. Set the `VirtualCenter.VimApiUrl` key to the fully qualified domain name.

If the vCenter server name is not entered correctly, the plug-in may not be able to access one or more of the virtual machine images.

Upgrading the NetBackup plug-in for vCenter

Follow these steps to upgrade the plug-in from an earlier version.

Table 2-5 Upgrading the plug-in from an earlier version

Step	Description	Reference topic and notes
1	Review the requirements for the plug-in.	For a list of supported NetBackup versions, VMware versions, and other support requirements for the plug-in, see the following document: <i>Support for NetBackup in virtual environments</i> http://www.veritas.com/docs/000006177 See "Configuration overview for the NetBackup plug-in for vCenter" on page 10.
2	Unregister the existing plug-in.	See "Manually unregistering the NetBackup plug-in for vCenter" on page 16.
3	Uninstall the existing virtual appliance and plug-in.	See "Disabling or uninstalling the NetBackup plug-in for vCenter" on page 15.
4	Install the latest version of the virtual appliance and plug-in.	See "Installing the NetBackup plug-in for vCenter" on page 13.

Installing the NetBackup plug-in for vCenter

The NetBackup plug-in for vCenter is provided as a virtual appliance in a preconfigured virtual machine. The virtual appliance is available in a .zip file on the MyVeritas website, as described in this installation procedure.

Note: After the virtual appliance is installed, it should be dedicated to hosting the NetBackup plug-in: it should not be used for other purposes.

To install the plug-in, you need the following information about the vCenter server:

- Host name or IP address
- User name and password
- Port number for the vCenter server (default is 443).

To install the virtual appliance and plug-in for vCenter

- 1 If you are a new Licensing Portal user, contact your company's administrator or Veritas Customer Care for assistance with obtaining a MyVeritas account.

<https://my.veritas.com/>

You can email us at:

CustomerCare@veritas.com

- 2 On the MyVeritas website, log on with your MyVeritas account.
- 3 Under **Licensing**, use your entitlement ID to locate the NetBackup plug-in and download the `NetBackup_8.0_Plugins.zip` file.

See the following MyVeritas guide for assistance with the Veritas Licensing Portal:

https://www.veritas.com/support/en_US/article.000001129

- 4 Unzip the file and copy the plug-in `.ova` package to a location that is accessible to the vSphere Client host.
- 5 From the vSphere Client host, log on to the vCenter server.
- 6 On the vCenter server, select **File > Deploy OVF template**.

Install the virtual appliance in vCenter, not directly in the ESXi server.

- 7 Browse to the location of the plug-in `.ova` package.

Click **Next** to work through the screens.

- 8 On the **Properties** screen, enter static network addresses only. Dynamic Host Configuration Protocol (DHCP) is not supported.

If your entries do not display properly on the **Properties** screen, use the Windows **Display** Control Panel to reduce the size of the text.

See “[The Network Properties screen in the Deploy OVF Template wizard does not display properly](#)” on page 46.

- 9 Follow the remaining screens to finish installing the virtual appliance.

- 10 Click the `NBvcplugin` virtual machine and click the **Console** tab.

The boot process continues and asks for a new root password. Set the root password for the virtual appliance. The boot process continues until the following appears:

```
Veritas NetBackup Plugin for vCenter 8.0 Installation Program
```

11 Follow the installation prompts.

Enter the host name or IP address for the vCenter server, and a user name and password. For the vCenter server port number and web server port number, accept the defaults.

Note: You are allowed to re-enter the vCenter logon credentials five times. Without a valid logon for the vCenter, the installation stops. Delete the `NBvcplugin` virtual machine, obtain the correct logon information, and begin the installation procedure again.

Note: You may need to modify your firewall rules to allow vSphere Client to access the plug-in host. The vSphere Client host must have access to port 9445 of the plug-in host.

The plug-in installation begins.

12 When installation completes, restart the following:

- vSphere Client
- The vCenter service (restart required only for vCenter 4.0)

The virtual appliance boot process continues.

13 Verify that the plug-in has the correct time.

If the time is not correct, go to the console of the virtual appliance and use the `date` command to change the time, as follows.

- Set the date and time by means of the `-s` option.

For example:

```
date -s "Wed Feb 3 09:41:54 UTC 2016"
```

Note: Veritas recommends keeping the plug-in in UTC.

- Then restart the virtual appliance.

Disabling or uninstalling the NetBackup plug-in for vCenter

You can disable the NetBackup plug-in, or remove the virtual appliance that contains the plug-in.

To disable the NetBackup plug-in

- 1 In vSphere Client, click **Plugins > Manage Plug-ins**.
- 2 Right-click on **Veritas NetBackup plugin for vCenter** and click **Disable**.
The Veritas NetBackup tab is removed.
- 3 To re-enable the plug-in, right-click on **Veritas NetBackup plugin for vCenter** and click **Enable**.

To uninstall the NetBackup plug-in

- 1 Right-click on the virtual appliance that contains the plug-in and select **Remove from Inventory**.
If necessary, the virtual appliance can be re-imported from the datastore. For permanent removal of the virtual appliance, click **Delete from disk**.
- 2 To reinstall the plug-in, you must manually unregister it.

Manually unregistering the NetBackup plug-in for vCenter

Note: The NetBackup plug-in installer allows one plug-in instance per vCenter server. You must uninstall the current plug-in before you can re-register it with the same vCenter server.

To manually unregister the plug-in

- 1 Open a web browser and use the following to log on to the vCenter Server Managed Object Browser (MOB):

Keep all on one line:

```
https://vCenter Server IP or host name  
/mob/?moid=ExtensionManager&method=unregisterExtension
```

Where *vCenter Server IP or host name* is the IP address or system name of the vCenter Server where the NetBackup plug-in is registered.

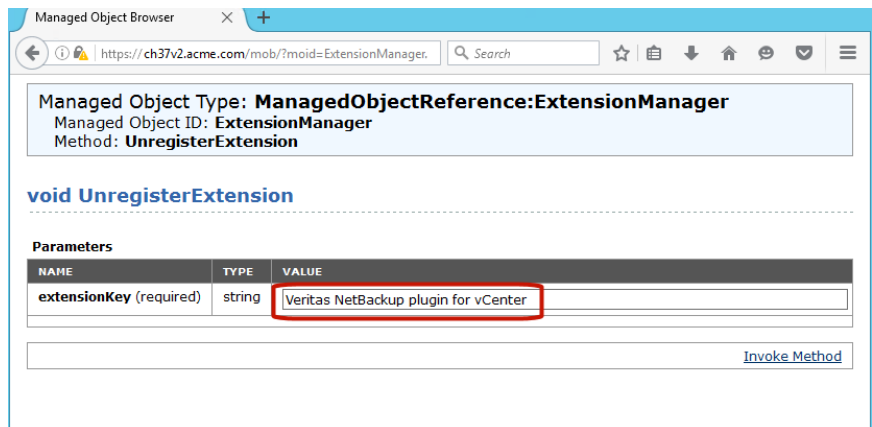
If the VMware web service does not use the default port 443, specify the following (all on one line):

```
https://vCenter Server IP or host name:  
PortNumber/mob/?moid=ExtensionManager&method=unregisterExtension
```

Where *PortNumber* is the VMware web service port number.

- 2 At the prompt, enter the vCenter server credentials.
You must have the Unregister extension privilege on the vCenter server.
- 3 In the **UnregisterExtension** window, enter the following in the **extensionKey** value field:

Veritas NetBackup plugin for vCenter



- 4 Click **Invoke Method**.
The NetBackup plug-in is unregistered from the vCenter Server.

Monitoring backup status

This chapter includes the following topics:

- [Configure the NetBackup plug-in for vCenter for backup monitoring](#)
- [Veritas NetBackup tab in vSphere Client](#)
- [Summary display](#)
- [Virtual Machines display](#)
- [Events display](#)
- [Using the Veritas NetBackup tab for backup reporting](#)
- [How to respond to backup status](#)

Configure the NetBackup plug-in for vCenter for backup monitoring

Before you can use the plug-in to monitor virtual machine backups, configure the following:

- Optionally, install an SSL certificate from a certificate authority.
See [“Installing an SSL certificate from a Certificate Authority”](#) on page 19.
- Install a trusted SSL certificate.
See [“Installing the trusted SSL certificate”](#) on page 20.
- Set vCenter privileges.
See [“Setting vCenter privileges for backup monitoring”](#) on page 22.

Installing an SSL certificate from a Certificate Authority

Optionally for the NetBackup plug-in for vCenter, you can install an SSL certificate from a Certificate Authority that you trust. To do so, you must have both an SSL certificate and an accompanying chain certificate. This procedure renames the alias of the existing certificate for the Apache Tomcat® server that is packaged with the NetBackup plug-in for vCenter. Only one alias can exist for the certificate for Tomcat.

If you do not install an SSL certificate from a CA, you may be prompted to install a certificate.

See [“Installing the trusted SSL certificate”](#) on page 20.

To install an SSL certificate from a Certificate Authority

1 Enable SSH on the NetBackup plug-in for vCenter virtual appliance, as follows:

- a. Log on to the plug-in virtual appliance by using a vSphere console.
- b. Edit the `/etc/ssh/sshd_config` file and set `PermitRootLogin` to `yes`.
- c. Start the `sshd` service by entering the following command:

```
/etc/init.d/sshd start
```

2 Ensure that the `JRE_HOME` environment variable on the virtual appliance is set to `/opt/SYMCnbvcPlugin/jre`.

3 Copy the SSL certificate and chain certificate to the virtual appliance. Use secure file transfer to copy the files.

4 Stop the Apache Tomcat server by entering the following command on the virtual appliance:

```
/opt/SYMCnbvcPlugin/tomcat/bin/shutdown.sh
```

5 Change the alias of the existing certificate in the keystore by entering the following command on the virtual appliance:

```
/opt/SYMCnbvcPlugin/jre/bin/keytool -changealias -alias "tomcat"  
-destalias new_alias_name -keystore /root/.keystore
```

The value of the `new_alias_name` is not significant for this operation.

Note: The keystore password is located in the Tomcat configuration file (`/opt/SYMCnbvcPlugin/tomcat/conf/server.xml`)

- 6 Import the chain certificate into the keystore by entering the following command on the virtual appliance:

```
/opt/SYMCnbvcPlugin/jre/bin/keytool -import -alias "root"  
-keystore /root/.keystore -trustcacerts -file  
chain_certificate_file
```

- 7 Import the SSL certificate into the keystore by entering the following command on the virtual appliance:

```
/opt/SYMCnbvcPlugin/jre/bin/keytool -import -alias "tomcat"  
-keystore /root/.keystore -file ssl_certificate_file
```

- 8 Start the Tomcat server by entering the following command on the virtual appliance:

```
/opt/SYMCnbvcPlugin/tomcat/bin/startup.sh
```

- 9 Disable SSH on the virtual appliance, as follows:

- a. Edit the `/etc/ssh/sshd_config` file and set `PermitRootLogin` to `no`.
- b. Stop the `sshd` service by entering the following command:

```
/etc/init.d/sshd stop
```

Installing the trusted SSL certificate

When you first use the NetBackup plug-in for vSphere Client, you are prompted to install a trusted SSL certificate. This certificate gets installed on the computer on which vSphere Client is running. This certificate authenticates and secures communication from the vSphere Client to the NetBackup plug-in host.

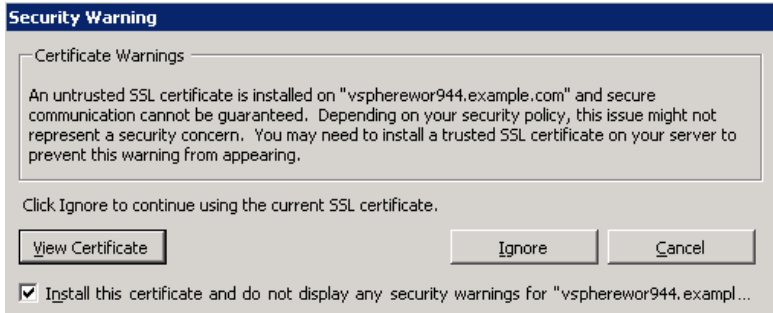
If you ignore the certificate warning, the same message appears whenever you log into vCenter. To stop the messages, install the SSL certificate in the Trusted Root Certification Authorities store, as follows.

Note: If you install a certificate from a certificate authority, you are not prompted about an untrusted SSL certificate. Therefore, you do not have to install the NetBackup trusted SSL certificate.

See [“Installing an SSL certificate from a Certificate Authority”](#) on page 19.

To install the trusted SSL certificate

- 1 When the Security Warning appears, click **Install this certificate and do not display any security warnings for xxxx**. Then click **View Certificate** to examine the certificate and authenticate the identity of the connecting NetBackup plug-in host.



- 2 On the **Certificate** dialog, click **Install Certificate....**
- 3 On the **Certificate Import Wizard**, click **Next**.
- 4 On the **Certificate Store** dialog, click **Place all certificates in the following store**. Click **Browse**.
- 5 Select **Trusted Root Certification Authorities** and click **OK**.



- 6 Click **Next**.

- 7 On the final screen, click **Finish**.
A warning message describes the certificate to be installed.
- 8 Click **Yes**.

Setting vCenter privileges for backup monitoring

Use the following procedure to set the user privileges in vCenter that the NetBackup plug-in requires.

To set required vCenter privileges for backup monitoring

- ◆ If the user account to access the plug-in cannot be assigned administrator privileges, you must set the following permissions at the vCenter level.

In vSphere Client, click **Home > Roles** and set the following:

To monitor virtual machine backups	Global > Manage custom attributes
	Global > Set custom attribute

Veritas NetBackup tab in vSphere Client

The NetBackup plug-in for vCenter displays backup information on the **Veritas NetBackup** tab in vSphere Client.

In the vSphere Client, go to **Home > Inventory > Hosts and Clusters** and select a vSphere object.

Note: You must select an object beneath the vCenter server, such as a folder, datacenter, or ESXi host. The information that appears in the **Veritas NetBackup** tab applies to the VMs within the object that you select.

[Table 3-1](#) describes the displays that appear on the **Veritas NetBackup** tab.

Table 3-1 Summary, Virtual Machines, and Events displays

Display	Information shown
Summary	A summary and graphical view of backup success and backup events, for a specified time period. Can show the current backup status for a selected VM. See “Summary display” on page 23.

Table 3-1 Summary, Virtual Machines, and Events displays (*continued*)

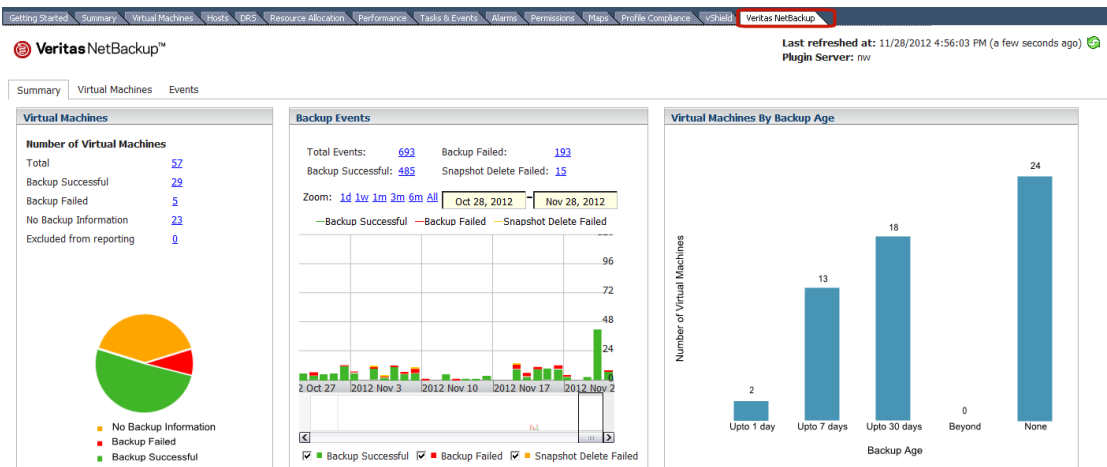
Display	Information shown
Virtual Machines	<p>Tabular view of backup information for a group of VMs.</p> <p>Note: This display is available when you click on a vSphere object that is above the level of a VM.</p> <p>You can filter the information with a range of criteria. Includes an option for customized sorting in multiple columns.</p> <p>See “Virtual Machines display” on page 24.</p>
Events	<p>More detailed tabular view of backup information based on events. Can show backup events for a VM or its parent object.</p> <p>You can filter the information with a range of criteria. Includes an option for customized sorting in multiple columns.</p> <p>See “Events display” on page 26.</p>

Summary display

The Summary display summarizes backup status, backup events, and backup age for the VMs in the vSphere object that you select. If you select an individual VM, the Summary display shows backup status and events for that VM.

Figure 3-1 shows an example of the Summary display for multiple VMs.

Figure 3-1 Summary display with backup data for multiple VMs



The Summary display presents backup information in the following panels.

Table 3-2 Summary panels

Panel	Description
Virtual Machine(s)	<p>Shows the current backup status and related information for a particular VM or for all the VMs that belong to the selected vSphere object.</p> <p>If the panel applies to more than one VM: click on the underlined values (such as for Total or Backup Successful) to see the details in the Virtual Machines display.</p>
Backup Events	<p>Shows the total number of backup events, and a breakdown of the events in three categories: Backup Successful, Backup Failed, and Snapshot Delete Failed.</p> <p>Also includes a bar chart that represents the type and number of backup events that occurred within a specified period. Each bar represents the events that occurred on a particular day. Hover over a bar to see the number of events for that day: the updated totals appear directly over the chart.</p> <p>You can configure the chart as follows:</p> <ul style="list-style-type: none"> ■ Select the types of events that appear in the chart by clicking on the colored check boxes. ■ Move the slider to adjust the time period, or click on a Zoom time period. <p>You can also specify the date range by entering start and end dates in the edit boxes. The maximum date range is one year by default.</p> <p>Note: Click on the values for Total Events, Backup Successful, Backup Failed, or Snapshot Deletion Failed to list those events in the Events display.</p>
Virtual Machines By Backup Age	<p>Shows the backup age of the VMs in a bar chart. This panel is available only for a vSphere object that is higher than the level of a VM.</p>

Virtual Machines display

The Virtual Machines display is available when you click on a vSphere object that is higher than the level of a VM. For each VM it lists the following: backup information, the host or cluster, the backup policy, the master server, backup age, VM age, and the number of consecutive failures.

Use the arrow on the right-most column header to hide or show a column. See [Figure 3-2](#).

Figure 3-2 Enable or disable columns in Virtual Machines display (detail)

Policy	Master	Consecutive Failures
test1	lqsol	1
test2	lqsol	1
RD_V	hypervm	5
Issue	vsphere	1
Issue	vsphere	1
Issue	vsphere	1
Issue	vsphere	1
Issue	vsphere	1
Issue	vspherevmc11	1
Issue	vspherevmc11	1

Note: You can move the table columns right or left (drag and drop).

You can also filter the information that appears in this display (**View, Filter, Backup Age**).

The display in [Figure 3-3](#) has been filtered to show data only for VMs that meet the following criteria: the VM has a successful backup, the backup image is up to seven days old, and the name of the VM contains the letters `vm`.

Figure 3-3 Virtual Machines display

Veritas NetBackup™ Last refreshed at: 11/28/2012 4:56:03 PM (7 minutes ago)
Plugin Server: nw

Summary Virtual Machines Events

View: Backup Successful Filter: Name contains vm Add Clear All Backup Age: Last 7 Days

Total Count: 4

Name	Host / Cluster	Backup Status	Last Successful Backup	Backup Age (days)	Policy	Master	Consecutive Failures
small_vm	vCloud_Cluster	Backup Successful	11/22/2012 2:29:54 PM	6	Beta1_Win	vnet1	-
vm2	vCloud_Cluster	Backup Successful	11/22/2012 12:17:38 PM	6	policy_1	v-120374a	-
vm1	vCloud_Cluster	Backup Successful	11/22/2012 12:17:40 PM	6	policy_1	v-120374a	-
vm3	vCloud_Cluster	Backup Successful	11/22/2012 12:32:09 PM	6	policy_1	v-120374a	-

[Table 3-3](#) describes the options for filtering or changing the display.

Table 3-3 Display options in the Virtual Machines display

Option	Description
View	Filters the display according to backup status (Backup Successful, Backup Failed, No Backup Information, Excluded from reporting). For example: If View is set to Backup Successful, it displays only the VMs that were backed up successfully.
Filter contains	Allows additional filtering. Select a type for Filter and enter a filter value in the contains field. For example: If it is set to <code>Name nfs</code> , it displays only the VMs that have a name that contains the characters <code>nfs</code> .
Add	Saves the current Filter type and value (in a blue-highlighted field), to allow the addition of more filters. Each Filter that you add further narrows the results. Click on a filter to remove it and refresh the display.
Clear All	Removes all filtering criteria from the Filter and contains fields and refreshes the display.
Backup Age	Filters the display according to the age of the backups.
Exclude	Marks a selected VM so that its backup status and other information are not displayed.
Include	Reverses the Exclude option: Adds a VM's backup status and other information to the display.
Export	Saves the information as an Excel file (.xls), as a comma-separated text (CSV) file, or to the Clipboard.
Sort	Allows customized sorting in multiple columns. Each selection for Column and Order is a level. For example: If one level is Name A to Z , and you add the level Policy Z to A , the information appears as follows: the VMs appear by name in ascending order, then the VMs appear by policy name in descending order. To change the order in which the sorting occurs, select a level and click Move Up or Move Down .

Events display

The Events display shows backup information based on events. It can show backup events for a single VM or for all VMs in the selected object.

Most of the filtering options on this display are described in another topic:

See [“Virtual Machines display”](#) on page 24.

Show events since filters the events according to the time period you select.

[Figure 3-4](#) shows an Events display with unfiltered data (the default).

Figure 3-4 Events display

Event Time	Event Type	Virtual Machine	Policy	Schedule Name	Schedule Type	Client	Master	Job ID	Job Duration
3/15/2012 9:17:27 PM	Backup Failed	new1	FID3122_snap	s	Full	hyp	hyp24	21	0 hrs 1 min 26 sec
3/15/2012 9:15:14 PM	Backup Failed	new1	FID3122_snap	s	Full	hyp	hyp24	-	-
3/15/2012 8:39:15 PM	Backup Failed	newtest	FID3122	s	Full	hyp	hyp24	8	0 hrs 3 min 40 sec
3/15/2012 9:22:19 PM	Backup Successful	new1	FID3122_snap	s	Full	hyp	hyp24	24	0 hrs 2 min 39 sec
3/15/2012 8:37:53 PM	Backup Successful	newtest	FID3122	s	Full	hyp	hyp24	8	0 hrs 2 min 17 sec
3/15/2012 8:29:30 PM	Backup Successful	newtest	FID3122	s	Full	hyp	hyp24	6	0 hrs 2 min 21 sec
3/15/2012 8:23:53 PM	Backup Successful	test_FID31	FID3122	s	Full	hyp	hyp24	4	0 hrs 2 min 48 sec
3/14/2012 9:19:10 PM	Backup Successful	test_FID31	Test_3122	s	Full	hyp	hyp24	49	0 hrs 1 min 18 sec
3/15/2012 9:22:38 PM	Snapshot Delete Failed	new1	FID3122_snap	s	Full	hyp	hyp24	24	-

Note the following:

Snapshot Delete Failed: After it creates a snapshot, NetBackup deletes the snapshot when the backup completes. If NetBackup fails to delete snapshots, the performance of the VM may eventually decline. In that case, you may need to delete the snapshots manually.

Using the Veritas NetBackup tab for backup reporting

The following procedures explain how to find VM backup status in the **Veritas NetBackup** tab.

In the vSphere Client interface: Go to **Home > Inventory > Hosts and Clusters** and select a vSphere object (such as a datacenter, ESXi host, or VM). The information that appears in the **Veritas NetBackup** tab applies only to the object that you select.

To find backup status for a single VM

- 1 Select the VM in vSphere Client.
- 2 Click the **Veritas NetBackup** tab.
- 3 Under **Summary**, **Virtual Machine**, see the **Current Backup Status** and the **Backup Events**.

To find backup status for multiple VMs

- 1 Select the appropriate object in vSphere Client (such as datacenter or ESXi host).
- 2 Click the **Veritas NetBackup** tab.
The **Summary** display shows the backup success rate for the VMs overall.
See [“Summary display”](#) on page 23.
- 3 For the backup status of particular VMs, click the **Virtual Machines** display and find the VMs in the **Name** column.
Use the **View** field to select the type of backup message to show (such as **Backup Successful** or **Backup Failed**).
Use **Filter** to further limit the type of information that appears.
Use **Backup Age** to filter the display by backup age.
See [“Virtual Machines display”](#) on page 24.

To determine which VMs are not backed up

- 1 Select the appropriate object in vSphere Client (such as datacenter or ESXi host).
- 2 Click the **Veritas NetBackup** tab.
- 3 Click the **Virtual Machines** display.
- 4 Set the **View** field to **Backup Failed**.
- 5 You can use **Filter** and **Backup Age** to filter the display.
- 6 To save the report, click **Export** and select an output type.

To determine the age of existing backups

- 1 Select the appropriate object in vSphere Client (such as datacenter or ESXi host).
- 2 Click the **Veritas NetBackup** tab.
In the **Summary** display, **Virtual Machines By Backup Age** shows the age of the backups (up to one day, up to seven days, and so forth).
- 3 For information on backup age per VM, click the **Virtual Machines** display and look at the **Backup Age (days)** column.
Set **View** to **All** or to **Backup Successful**.
If necessary, use **Filter** to filter the displayed information.
- 4 To save the report, click **Export** and select an output type.

How to respond to backup status

For the backup status that is reported in the plug-in, the following example actions may be appropriate. You may need to confer with the NetBackup administrator.

Table 3-4 Tips for responding to backup status in the NetBackup vCenter plug-in

Status	Action
Backup failures	<ul style="list-style-type: none">■ Look at the number of consecutive failures on the Virtual Machines display.■ If too many failures have occurred, export the display results and send the file to the NetBackup administrator.
No backup information	<ul style="list-style-type: none">■ The VM may not be included in a NetBackup policy, or the Post events to vCenter policy option may not be correctly configured. Contact the NetBackup administrator.■ The VM may be intentionally excluded from scheduled backups (contact the NetBackup administrator). In that case, you can use the Exclude option on the plug-in Virtual Machines display to remove the VM's status from the display.■ The ESXi server may have been removed from the vCenter server. See “Notes and recommendations on the NetBackup plug-in” on page 8.
Snapshot delete failed	NetBackup attempts to delete old snapshots at the start of each backup. If snapshots are not deleted, you can manually delete them in vSphere Client.

Recovering virtual machines

This chapter includes the following topics:

- [Configure the NetBackup Recovery Wizard](#)
- [Notes on restoring virtual machines with the NetBackup Recovery Wizard](#)
- [How to access the NetBackup Recovery Wizard](#)
- [NetBackup Recovery Wizard screens](#)

Configure the NetBackup Recovery Wizard

Note: The NetBackup Recovery Wizard is an optional feature of the NetBackup plug-in for vCenter, for recovering virtual machines. It is not required for monitoring virtual machine backups.

To use the NetBackup Recovery Wizard to restore virtual machines, configure the following:

Table 4-1 Configuring the NetBackup Recovery Wizard

Step	Description	Reference topic
1	Create an authentication token file.	See “Creating an authentication token” on page 31.
2	Authorize the plug-in to restore virtual machines.	See “ Authorizing the plug-in to restore virtual machines” on page 33.

Table 4-1 Configuring the NetBackup Recovery Wizard (*continued*)

Step	Description	Reference topic
3	Set the required vCenter privileges.	See “Setting vCenter privileges for recovering virtual machines” on page 34.

Creating an authentication token

To allow the plug-in to restore VMs, you must generate an authentication token on the NetBackup master server (or on the appliance as master server).

To create an authentication token on the NetBackup master server

- 1 Enter the following on the master server:

Windows

```
install_path\NetBackup\wmc\bin\install\manageClientCerts.bat  
-create plugin_host
```

UNIX, Linux

```
/usr/openv/wmc/bin/install ./manageClientCerts -create plugin_host
```

plugin_host is the fully qualified domain name of the virtual machine (virtual appliance) where the NetBackup plug-in is installed.

The `manageClientCerts` command returns the location of a compressed file that contains the authentication token.

- 2 Provide the compressed file to the vCenter administrator.

Caution: Be sure to share or send the compressed file in a secure manner.

With the master server token, the plug-in can be authorized to restore virtual machines.

See [“Authorizing the plug-in to restore virtual machines”](#) on page 33.

To create an authentication token (certificate) on the NetBackup appliance as master server

- 1 To generate the certificate, see the "Manage > Certificates" topic in the *NetBackup Appliance Administrator's Guide*, available from this location:
<http://www.veritas.com/docs/000002217>
- 2 Provide the compressed certificate file to the vCenter administrator.

Caution: Be sure to share or send the compressed file in a secure manner.

With the master server certificate, the plug-in can be authorized to restore virtual machines.

See “[Authorizing the plug-in to restore virtual machines](#)” on page 33.

Revoking an authorization token

You can delete or revoke a master server authentication token, as follows.

To revoke the authorization token

- 1 Enter the following on the master server:

Windows

```
install_path\NetBackup\wmc\bin\install\manageClientCerts.bat  
-delete vCenter_plugin_host
```

UNIX, Linux

```
/usr/opensv/wmc/bin/install ./manageClientCerts -delete  
vCenter_plugin_host
```

where *vCenter_plugin_host* is the fully qualified domain name of the vCenter in which the plug-in is installed.

The `-delete` option removes the authentication token and its compressed file from the master server. The plug-in is no longer authorized to restore virtual machines from backups that were made by this master server.

- 2 To re-authorize the plug-in for restores for this master server, create a new token and if necessary re-add the master server in vSphere Client.

See “[Creating an authentication token](#)” on page 31.

See “[Authorizing the plug-in to restore virtual machines](#)” on page 33.

Listing all current authorization tokens

You can list all the master server authentication tokens that are presently in use.

To list all current authorization tokens

- ◆ Enter the following on the master server:

Windows

```
install_path\NetBackup\wmc\bin\install\manageClientCerts.bat -list
```

UNIX, Linux

```
/usr/opensv/wmc/bin/install ./manageClientCerts -list
```

Sample output:

Client	Expiry Date
vCenter-server-1	Thu Feb 06 16:16:51 GMT+05:30 2014
vCenter-server-2	Fri Feb 07 11:22:53 GMT+05:30 2014

The command lists the vCenter servers for which the tokens were created as well as their expiration dates. It can help diagnose communication problems between the plug-in host and the master server when a certificate has expired.

- For well-formatted output, set the command prompt or shell screen size to more than 100 units.
- Server names that are longer than 40 characters are truncated: Characters beyond the first 40 are replaced with "...".

Authorizing the plug-in to restore virtual machines

The NetBackup master server initiates and controls the backup of virtual machines. To use the plug-in to restore virtual machines, you must obtain a master server authentication token from the NetBackup administrator. Then you can authorize the plug-in to restore the virtual machines that were backed up by that master server.

To authorize the plug-in to restore virtual machines

- 1 Ask the NetBackup administrator to provide an authentication token file.
See ["Creating an authentication token"](#) on page 31.
- 2 Copy the authentication token file to the vSphere Client host (make a note of the location).
- 3 In vSphere Client, click **Home**.
- 4 Click the **Veritas NetBackup** icon.

- 5 Click **Add/Remove Servers**.
- 6 Enter the following to specify a NetBackup master server and its authentication token.

Add NetBackup Master Server

- **NetBackup Master Server**

Enter the fully qualified domain name of the master server.

- **Port for NetBackup Web Services**

If the NetBackup administrator has not changed the port, accept the default (8443). Otherwise, contact the administrator for the correct port number.

- **Upload Authentication Token**

Click **Browse** to select the authentication token file that the NetBackup administrator provided.

- Click **Add Server**. The server is added to the list of master servers that the plug-in can communicate with.

Note: If an "Out of sync" message appears after you add a master server, click on the message as requested. This message can be ignored: it does not indicate a problem in adding the NetBackup authentication token.

Note: If a "Connection Refused" message appears, the ports for the NetBackup Web Services may not be correctly configured on the master server. Contact the NetBackup administrator.

- 7 Add other master servers and their authentication tokens as needed.
- 8 You can also remove a master server from the list of servers, or validate the connection from the plug-in to a master server.

Validate/Remove NetBackup Master Server

After the master server is added to the list, you can validate the connection. Type or select the master server and click **Validate**.

Click **Remove** to remove the server from the list. The plug-in is no longer able to monitor or restore the backups that the master server performed.

Setting vCenter privileges for recovering virtual machines

Use the following procedure to set the user privileges in vCenter for the NetBackup Recovery Wizard.

To set required vCenter privileges for recovering virtual machines

- ◆ If the user account to access the plug-in cannot be assigned administrator privileges, you must set the following permissions at the vCenter level.

In vSphere Client, click **Home > Roles** and set the following:

To recover virtual machines

NetBackup Recovery > Add or Remove NetBackup Servers

NetBackup Recovery > Virtual Machine Recovery

Global > Log Event

Note: When you deploy the plug-in, NetBackup recovery privileges are automatically enabled for the Administrator role. These privileges allow the VMware administrator to use the NetBackup Recovery Wizard to recover virtual machines to any destination in vCenter. To give the recovery privileges to other users, you must enable the NetBackup Recovery privileges for other roles.

Caution: The NetBackup Virtual Machine Recovery privilege grants global recovery authorization. It allows users with that role to recover any virtual machine that resides on that vCenter. Use caution when granting this privilege to users.

Notes on restoring virtual machines with the NetBackup Recovery Wizard

Use the **Veritas NetBackup Recovery Wizard** in vSphere Client to restore a virtual machine from its NetBackup image. You can restore the virtual machine to its original location or to a different location.

Note the following about the NetBackup Recovery Wizard:

- For the pre-requisites for using the Recovery Wizard:
See "[Configure the NetBackup Recovery Wizard](#)" on page 30.
- The NetBackup Recovery Wizard is an optional feature of the plug-in. It is not required for monitoring virtual machine backups.
- The NetBackup Recovery Wizard is for recovery of an entire virtual machine, not for recovery of individual files. To recover individual files from the virtual machine backup, use the NetBackup Backup, Archive, and Restore interface. See "About restore of individual files" and "Restoring individual files" in the *NetBackup for VMware Administrator's Guide*.

- The Recovery Wizard does not support recovery of vCloud Director backup images. To recover virtual machines into vCloud Director, use the NetBackup Backup, Archive, and Restore interface.
See the "Use NetBackup for vCloud Director" chapter in the *NetBackup for VMware Administrator's Guide*.
- The Recovery Wizard does not use NetBackup's Instant Recovery feature.

How to access the NetBackup Recovery Wizard

In vSphere Client, you can launch the Recovery Wizard in any of three ways as shown in [Table 4-2](#).

Table 4-2 Three ways to start the **NetBackup Recovery Wizard** in vSphere Client

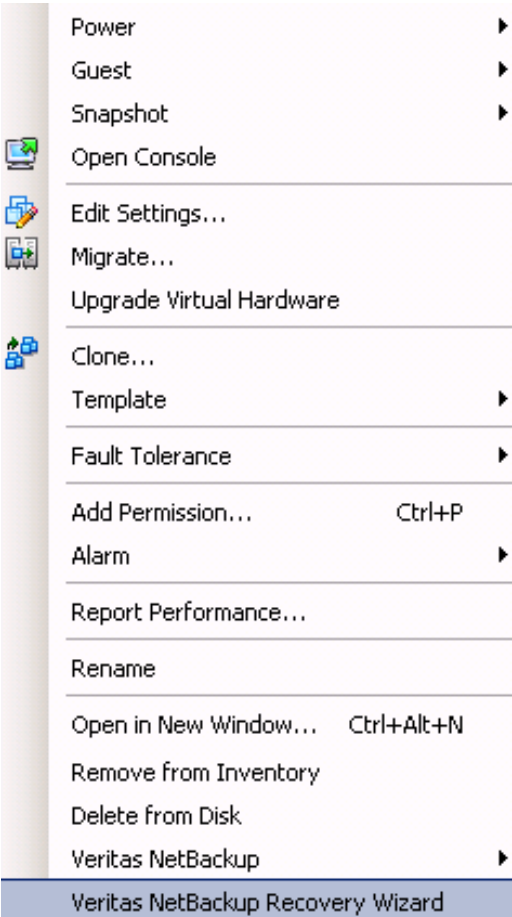





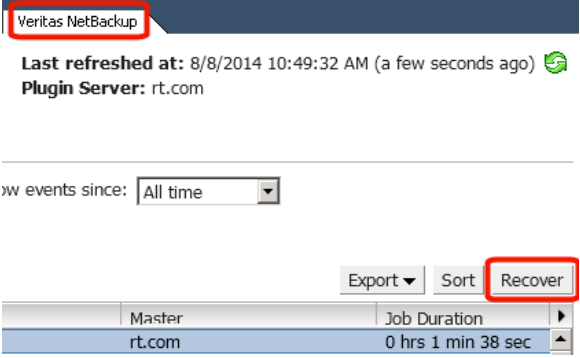
Action	Description
 <p>Power ▶</p> <p>Guest ▶</p> <p>Snapshot ▶</p> <p> Open Console</p> <hr/> <p> Edit Settings...</p> <p> Migrate...</p> <p>Upgrade Virtual Hardware</p> <hr/> <p> Clone...</p> <p>Template ▶</p> <hr/> <p>Fault Tolerance ▶</p> <hr/> <p>Add Permission... Ctrl+P</p> <p>Alarm ▶</p> <hr/> <p>Report Performance...</p> <hr/> <p>Rename</p> <hr/> <p>Open in New Window... Ctrl+Alt+N</p> <p>Remove from Inventory</p> <p>Delete from Disk</p> <p>Veritas NetBackup ▶</p> <p>Veritas NetBackup Recovery Wizard</p>	<p>Right click on the virtual machine and select Veritas NetBackup Recovery Wizard.</p> <p>By default, the wizard selects the original location as the target for the restore. You can overwrite the virtual machine in the original location or direct the restore to another location.</p>
 Veritas NetBackup	<p>Click Home, click the Veritas NetBackup Recovery icon, and then click Start VM Recovery Wizard.</p>

Table 4-2 Three ways to start the **NetBackup Recovery Wizard** in **vSphere Client** (*continued*)

Action	Description
 <p>The screenshot shows the Veritas NetBackup interface. At the top, there is a header 'Veritas NetBackup' with a refresh icon. Below it, the text reads 'Last refreshed at: 8/8/2014 10:49:32 AM (a few seconds ago)' and 'Plugin Server: rt.com'. There is a dropdown menu for 'w events since:' set to 'All time'. At the bottom, there are buttons for 'Export', 'Sort', and 'Recover', with the 'Recover' button highlighted by a red box. Below the buttons is a table with columns 'Master' and 'Job Duration'. The table contains one row with 'rt.com' under 'Master' and '0 hrs 1 min 38 sec' under 'Job Duration'.</p>	<p>In the Veritas NetBackup tab, click the Events tab, click on a successful backup event for the virtual machine, and click the Recover tab.</p>

NetBackup Recovery Wizard screens

Use the following screens to restore a virtual machine with the VMware vSphere Client interface.

Select source virtual machine

Select the virtual machine to restore.

Table 4-3 Select source virtual machine (NetBackup plug-in Recovery Wizard)

Field	Description
Select NetBackup Master Server	<p>Use the drop-down list to select the master server that made the backup.</p> <p>If the master server is not in the drop-down, you must add the server to the master server list.</p> <p>See “To authorize the plug-in to restore virtual machines” on page 33.</p>

Table 4-3 Select source virtual machine (NetBackup plug-in Recovery Wizard) (*continued*)

Field	Description
Enter Display Name or UUID or DNS Name or Host Name	<p>Enter the virtual machine name (or portion of the name) that you want to restore, and click Search.</p> <p>Note: This field is case-sensitive.</p> <p>When you access this dialog by means of Home > Veritas NetBackup > Recovery Wizard, this field does not accept pasting values from the Clipboard. You must enter a value manually. For security reasons, VMware does not allow pasting values into this field.</p>
Select Client	<p>The results of the search appear in this list.</p> <p>Click the virtual machine to restore and then click Next.</p>

Select Backup

In the NetBackup plug-in Recovery Wizard, select the backup image from which to restore the virtual machine.

Table 4-4 Select Backup (NetBackup plug-in Recovery Wizard)

Field	Description
Select Backup	<p>Use the drop-down to select the backup, as follows</p> <ul style="list-style-type: none"> ■ Latest Backup Selects the latest available backup image. ■ Manually Specify Click this option to select a different backup image. The Browse backups button appears. Click that button and enter a date range within which to search for images. The vmdk files for the image you select appear under the Virtual Machine Attributes area. A red triangle next to the date field indicates the entry of an unsupported date format. Use the calendar icon to select a date. The Select Backup screen in some cases allows the incorrect entry of a date. Click Select this backup to select the backup image.
Backup Details	<p>Displays the information on the backup image and the attributes of the virtual machine at the time it was backed up.</p>

Destination Options

Specify the destination for the restored virtual machine.

Table 4-5 Destination Options (NetBackup plug-in Recovery Wizard)

Field	Description
Original Location	Lists the details of the original location.
Use Original Location	Selects the original location (ESXi server, folder, resource pool, datastore, or cluster) as the restore location. (This setting is the default.) To accept the original location, click Next .
ESXi	The ESXi server for the restored virtual machine. Click Change to browse for an ESXi server.
VM Folder	The folder for the restored virtual machine. Click Change to browse for a folder.
Resource Pool	The resource pool for the restored virtual machine. Click Change to browse for a resource pool.
Datastore or Cluster	The datastore or datastore cluster for the restored virtual machine. Click Change to browse for a datastore or datastore cluster.
Display Name	The display name for the restored virtual machine. You can enter the name.

Transport Modes

Select the recovery host and data transfer mode for the virtual machine restore.

Table 4-6 Recovery host and transport modes (NetBackup plug-in Recovery Wizard)

Field	Description
NetBackup Recovery Host	The host that performs the recovery. The default is the host that performed the backup (the backup host). In most cases, use the host that performed the backup. Selecting a different host as the recovery host can result in a slow restore or a failed restore, depending on the transport mode. For example, the restore may fail if you select the SAN transport mode in the following case: <ul style="list-style-type: none"> ■ The host that performed the backup used a SAN connection to access the datastore. ■ The host you select as recovery host does not have SAN access to the datastore.

Table 4-6 Recovery host and transport modes (NetBackup plug-in Recovery Wizard) (*continued*)

Field	Description
Transport Modes	<p>Determines how the restore data is sent from the recovery host to the VMware datastore. The appropriate option depends in part on the type of network that connects the VMware datastore to the recovery host.</p> <p>Click a mode on the left and use the arrow to add it to the Selected modes in preference order panel on the right. The first mode that is added is the first transfer mode that NetBackup tries for the restore.</p>
san	For unencrypted transfer over Fibre Channel (SAN) or iSCSI.
nbd	For unencrypted transfer over a local network that uses the Network Block Device (NBD) driver protocol. This mode of transfer is usually slower than Fibre Channel.
nbdssl	For encrypted transfer (SSL) over a local network that uses the Network Block Device (NBD) driver protocol. This mode of transfer is usually slower than Fibre Channel.
hotadd	<p>Requires that the recovery host is in a virtual machine.</p> <p>For instructions on this transport mode and on installing the recovery host in a virtual machine, refer to your VMware documentation.</p>

Disk Options

Select the provisioning for the restored disks.

Table 4-7 Disk options (NetBackup plug-in Recovery Wizard)

Field	Description
Same as original	Restores the virtual machine's virtual disks with their original provisioning.
Thick Provision Lazy Zeroed	Configures the restored virtual disks in the thick format. The virtual disk space is allocated when the disk is created. This option restores the populated blocks, but initializes vacant blocks with zeros later, on demand.
Thick Provision Eagerly Zeroed	Configures the restored virtual disks in the thick format. Restores the populated blocks and immediately initializes vacant blocks with zeros (eagerly zeroed). Creation of the virtual disks may take more time with this option. However, if the restore occurs over a SAN, the eagerly zeroed feature may speed up the restore by reducing network communication with the vCenter server.
Thin Provisioning	Configures the restored virtual disks in the thin format. Restores the populated blocks but does not initialize vacant blocks or commit them.

Virtual Machine Options

Select the recovery options for the virtual machine.

Table 4-8 Virtual machine options (NetBackup plug-in Recovery Wizard)

Field	Description
Restore BIOS UUID instead of creating a new	Retains the UUID of the original virtual machine (note that the UUID is a globally unique identifier). The virtual machine is restored with the same UUID that it had before the restore. Note the following: <ul style="list-style-type: none"> ■ If a virtual machine with the same display name but with a different UUID exists at the target restore location, the restore fails. You must either delete the existing virtual machine and run the restore, or keep the existing virtual machine and abandon the restore. ■ If you do not want to keep the existing virtual machine, you can do one of the following: Remove the existing virtual machine, or log into the ESXi server and remove the directory where the virtual machine resides.
Power on virtual machine after recovery	The recovered virtual machine is automatically turned on when the recovery is complete.
Overwrite existing virtual machine	If a virtual machine with the same display name exists at the destination, that virtual machine must be deleted before the restore begins. Otherwise, the restore fails. Select this option to have the virtual machine deleted.
Retain hardware version	This option restores the virtual machine with its original hardware version (such as 4). It retains the original version even if the target ESXi server by default uses a later hardware version (such as 7 or 8). If this option is disabled, the restored virtual machine is converted to the default hardware version that the ESXi server uses.

Network Connectivity Options

Select the networks for the recovered virtual machine.

Table 4-9 Network connectivity options (NetBackup plug-in Recovery Wizard)

Field	Description
Select All	Selects or unselects all the networks that are available. If a network is selected, the restored virtual machine is automatically connected to that network. You can select individual networks for the restored virtual machine.

Recovery Summary

Preview the recovery details.

Table 4-10 Recovery summary (NetBackup plug-in Recovery Wizard)

Field	Description
Destination	Lists the settings that are used for the recovery.
Pre-Recovery Check Results	Click Run Pre-Recovery Check . Verifies the credentials and appropriate paths and connectivity, determines whether the datastore or datastore cluster has available space, and reviews other requirements. You must run this check at least once. You can proceed with the restore even if the check fails.
Recover	Starts the recovery of the virtual machine. This button is not available until you run a pre-recovery check.

Troubleshooting

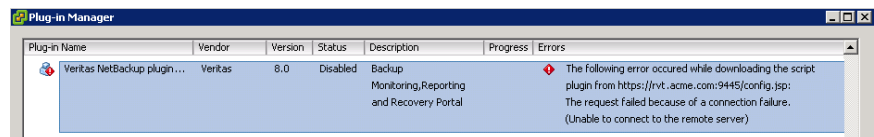
This chapter includes the following topics:

- The NetBackup vCenter plug-in does not appear in vSphere Client
- Reducing the load time for the NetBackup vCenter plug-in
- The Network Properties screen in the Deploy OVF Template wizard does not display properly
- The Veritas NetBackup tab is blank
- The Recovery Wizard does not find any backup images
- The Recovery Wizard does not find a particular backup image

The NetBackup vCenter plug-in does not appear in vSphere Client

The plug-in may not appear if vSphere Client fails to access the plug-in host.

In vSphere Client, click **Plug-ins > Manage Plug-ins**. A NetBackup plug-in message similar to the following indicates that vSphere Client cannot connect to the plug-in.



Recommended actions:

- Verify that the vSphere Client host can access the plug-in by name. You may have to modify `C:\Windows\System32\drivers\etc\hosts` on the vSphere Client host to correct the name resolution.

- Verify that the plug-in host (virtual appliance) is running.
- Verify that the host name being accessed is correct. If the plug-in host is configured with the wrong host name, delete the virtual appliance and reinstall it.

Reducing the load time for the NetBackup vCenter plug-in

If the plug-in takes a long time to load, too many backups may have occurred in your environment.

To reduce the load time for the NetBackup vCenter plug-in

- 1** Log in to the plug-in virtual appliance using vSphere Client.
 Log in as the root user and specify the password that was supplied during the plug-in installation.
- 2** Open the following file in a text editor:

```
/etc/nbvcpplugin.env
```
- 3** Find the following line in the file:

```
export MAX_EVENT_HISTORY_IN_DAYS=365
```

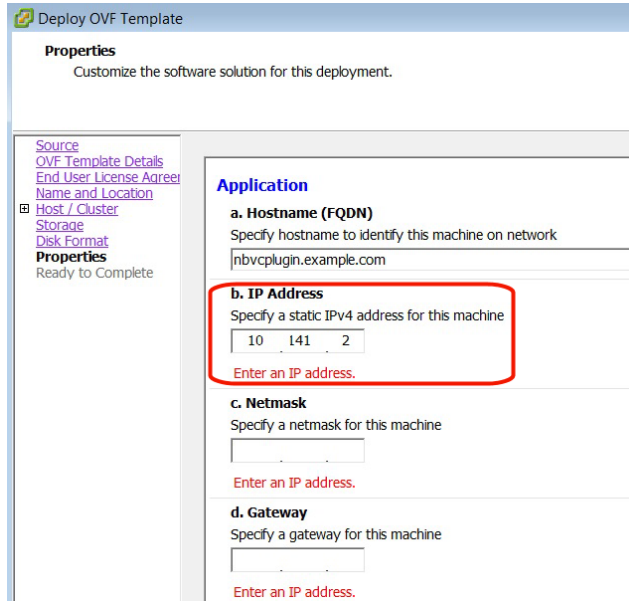
 By default, the vCenter plug-in retrieves backup events for the last 365 days.
- 4** Change the numeric value of MAX_EVENT_HISTORY_IN_DAYS to a lower positive number (non-zero). For example: 30.
 This change limits the number of backup events that the plug-in retrieves. As a result, it reduces the plug-in's initial load time.
- 5** Save the file and exit the text editor.
- 6** For this setting to take effect, enter the following commands to restart the plug-in service:

```
service nbvcplugin stop

service nbvcplugin start
```
- 7** Log out of the plug-in virtual appliance.

The Network Properties screen in the Deploy OVF Template wizard does not display properly

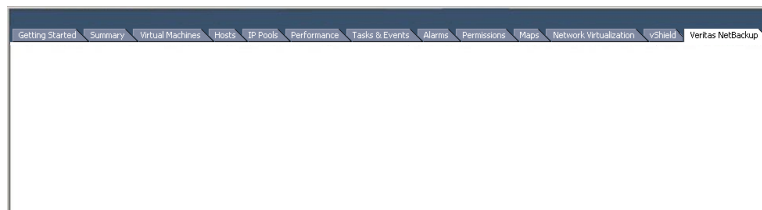
During installation of the virtual appliance, the deployment wizard **Network Properties** screen may display improperly if the Windows text size is set too large. For example:



To correct the display, go to the Windows Control Panel and click **Display**. Set the text size to **100%**.

The Veritas NetBackup tab is blank

In vSphere Client, if an operation in the **Veritas NetBackup** tab results in a blank display, close and restart the vSphere Client. Then retry the operation.



The Recovery Wizard does not find any backup images

The NetBackup plug-in Recovery Wizard may encounter this problem for any of the following reasons:

- The vCenter name resolution for the master server IP on the plug-in host is different from the name resolution for the master server IP on the master server.
- The vCenter was added to the master server using its name but the plug-in was configured using its IP.
- The time setting on the plug-in host is incorrect.

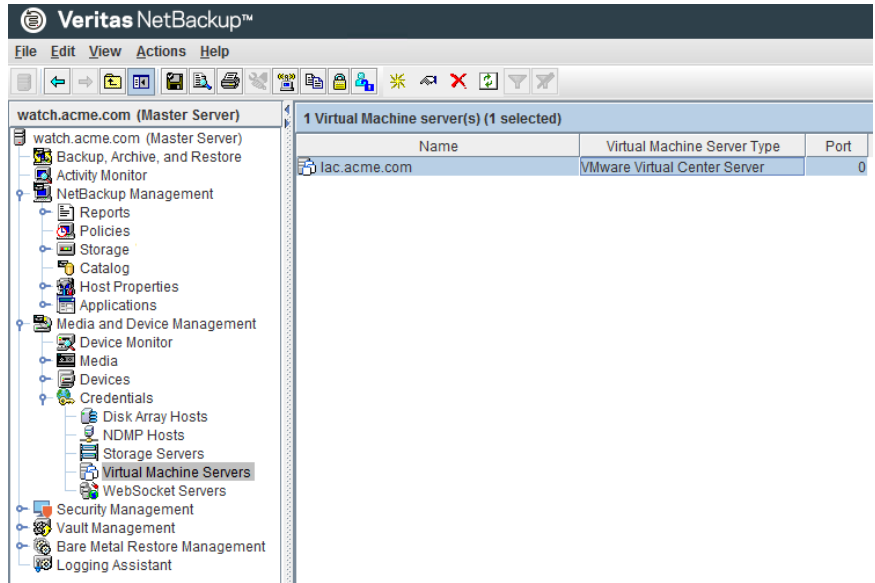
Recommended actions:

- Verify that the name of the plug-in on the plug-in host is identical to the name entered under **Credentials** on the NetBackup master server. The following two name entries should match:
 - On the plug-in host enter the following:


```
/opt/SYMCnbvcPlugin/tomcat/webapps # cat /etc/nbvcplugin.env |  
grep SERVER_NAME
```

Example result: SERVER_NAME=vmserver.acme.com
 - Find the virtual machine server name in the Administration Console on the NetBackup master server, under **Media and Device Management > Credentials > Virtual Machine Servers:**

The Recovery Wizard does not find a particular backup image



The name that appears in the Administration Console should match the name that was returned on the plug-in host.

- Verify that the time setting on the plug-in host (virtual appliance) is correct. If necessary, set the current time using the `date` command.

For example:

```
date -s "Wed Feb 6 09:41:54 UTC 2013"
```

Note: Substitute the current date and time for the values in this example.

Then restart the virtual appliance.

The Recovery Wizard does not find a particular backup image

The NetBackup plug-in Recovery Wizard may not find the backup image for a particular VM if the VM display name contains special characters.

To locate the backup image, start the recovery as follows:

- In vCenter, click **Home**, click the **Veritas NetBackup Recovery** icon, and then click **Start VM Recovery Wizard**.
- In the wizard, enter the VM name (full or partial) to begin recovery.