## Veritas NetBackup™ Add-in for Microsoft SCVMM Console Guide

Release 9.1



### Veritas NetBackup<sup>™</sup> Add-in for Microsoft SCVMM Console Guide

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## Chapter

## Introduction and notes

This chapter includes the following topics:

- About the NetBackup Add-in for System Center Virtual Machine Manager (SCVMM)
- Notes on the NetBackup Add-in for SCVMM
- Updates to this guide for NetBackup 8.2

## About the NetBackup Add-in for System Center Virtual Machine Manager (SCVMM)

You can use the NetBackup Add-in for Microsoft System Center Virtual Machine Manager (SCVMM) to recover virtual machines from NetBackup backup images.

You can use the add-in to do the following in the SCVMM console:

- Recover the full virtual machine to its original location or to an alternate location.
- Monitor the progress of recovery jobs that the add-in initiated.

Figure 1-1 shows an SCVMM environment with NetBackup servers and the NetBackup add-in.

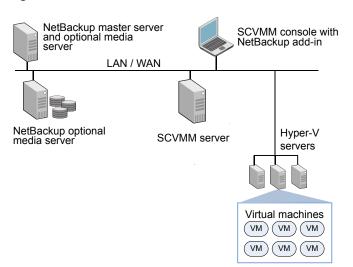


Figure 1-1 NetBackup and SCVMM environment with NetBackup add-in

### Notes on the NetBackup Add-in for SCVMM

Note the following about the NetBackup add-in:

- This release of the NetBackup add-in for SCVMM does not support the following: Monitoring of virtual machine backups, restore of individual files from virtual machine backups, or restore of the virtual machine to a staging location.
   See "Notes on restoring Hyper-V virtual machines with the Recovery Wizard" on page 36.
- To use the NetBackup add-in, you must log on to the SCVMM console with the Administrator role. For any user that is logged on with a different role, the add-in functionality is disabled.
- The NetBackup add-in must be installed by every user who wants to use it. See "Accessing the Recovery Wizard" on page 37.
- Regarding future versions of the NetBackup Add-in for SCVMM: Due to Microsoft limitations on 3rd party add-ins, the NetBackup add-in does not support upgrades to the existing version of the add-in. When a new release of the add-in is available, the current version must be uninstalled.

Note: You can upgrade SCVMM without needing to reinstall the add-in.

### Updates to this guide for NetBackup 8.2

 Added topics on configuring the plug-in to communicate with a NetBackup master server that uses an external certificate.
 See "Configuring the add-in for an external certificate" on page 19.
 See "Reconfiguring the add-in for a NetBackup CA-signed certificate" on page 20.

## Chapter

## Installing the NetBackup Add-in for SCVMM

This chapter includes the following topics:

- Requirements for the NetBackup Add-in for SCVMM
- Installing the NetBackup Add-in for SCVMM
- Installation message: Add-in cannot be installed
- Installation message regarding localized environments
- Configuring the add-in for an external certificate
- Reconfiguring the add-in for a NetBackup CA-signed certificate
- Uninstalling the NetBackup Add-in for SCVMM
- Configuring the NetBackup Recovery Wizard

## Requirements for the NetBackup Add-in for SCVMM

For a list of supported NetBackup versions and SCVMM versions, see the *NetBackup Software Compatibility List* (SCL) available from the following location:

NetBackup Master Compatibility List

### Installing the NetBackup Add-in for SCVMM

This topic describes how to obtain the installation files and install the NetBackup Add-in for SCVMM.

Requirement	Notes
NetBackup add-in installation file	You can download the installation file <pre>NetBackup_9.1_Plugins.zip from the following location: https://my.veritas.com/</pre>
SCVMM console host	Download the installation .zip file to the SCVMM console host, or to a different Windows host.
	<b>Note:</b> The Windows host must have network connectivity to the SCVMM server.
SCVMM	When the add-in is installed, it runs in the SCVMM console.
server(s) and their credentials	The following are required to complete the add-in installation:
	<ul> <li>Host name or IP address of each SCVMM server.</li> </ul>
	<ul> <li>User name and password of each SCVMM server.</li> </ul>
	<ul> <li>Port number for each SCVMM server (default is 443).</li> </ul>
Additional user	Additional user access may be needed in the following situation:
access	<ul> <li>User Account Control is enabled on the SCVMM console host.</li> </ul>
	<ul> <li>The user who installs the add-in is not the user who installed the System Center.</li> </ul>
	See "Installation message: Add-in cannot be installed" on page 15.

 Table 2-1
 NetBackup Add-in for SCVMM: installation requirements

### To install the NetBackup Add-in for SCVMM

**1** On the MyVeritas website, log on with your MyVeritas account:

### https://my.veritas.com/

For logon assistance, see your account Administrator, or contact Veritas:

### Veritas Support

Email: CustomerCare@veritas.com

2 Click Licensing on the MyVeritas menu bar.

The Veritas Entitlement Management System (VEMS) appears.

- 3 Click Entitlements, then click More Options.
- 4 In the **Product Name** field, enter NetBackup and click **Apply Filters**. Your NetBackup product entitlements appear in the list.

**5** For one of the NetBackup products in the list, click the Download Product icon under **Actions**.

A list of NetBackup product versions appears.

- 6 For one of the NetBackup products, click the Download Product icon again.
- 7 Select the NetBackup\_9.1\_Plugins.zip file and download the file to the SCVMM console host.

For assistance with the Veritas Entitlement Management System, see the following article:

Veritas Entitlement Management User's Guide

8 Unzip the downloaded NetBackup\_9.1\_Plugins.zip file and locate the VRTSNBUAddIn.zip file.

The path to the VRTSNBUAddIn.zip file is the following:

\NB 9.1 Plugins\NBscvmmAddIn\NetBackup scvmmAddIn Win\VRTSNBUAddIn.zip

Note: Do not unzip the VRTSNBUAddIn.zip file. That zip file is needed for installation of the add-in.

Zip files for other NetBackup plug-ins are also included in the downloaded NetBackup\_9.1\_Plugins.zip file. Those files are not required for the NetBackup Add-in for SCVMM.

9 Launch the SCVMM console and connect to the SCVMM server.

You need the server's host name or IP address, and its logon credentials.

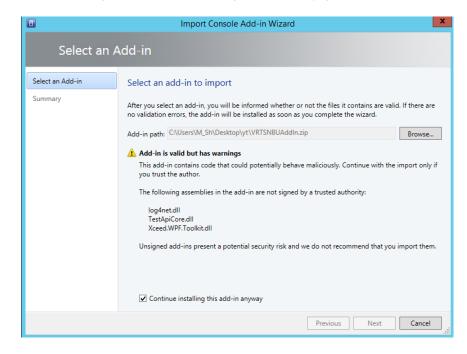
**10** In the SCVMM console, open the **Settings** workspace, then click the **Import Console Add-in** option in the SCVMM ribbon.



The Import Console Add-in Wizard appears.

11 In the Select an Add-in screen, click Browse and browse for the VRTSNBUAddIn.zip file.

Several warnings appear. These warnings can be safely ignored.



### **12** Click Continue installing this add-in anyway.

If the **Import Console Add-in Wizard** states "The Add-in cannot be installed," you may need additional user access.

See "Installation message: Add-in cannot be installed" on page 15.

When you have the required user access, browse for the NetBackup add-in file again (step 11) and continue this installation procedure.

	Import Console Add-in Wizard
Summary	
Select an Add-in Summary	Confirm the settings View Script
	Name:         Veritas NetBackup Add-in           Author:         Veritas Technologies LLC           Version:         8.1.0.0
	Description: Veritas NetBackup SCVMM Add-in for restoring virtual machines from backup images.
	Previous Finish Cancel

### 13 On the Summary screen, click Finish.

If the NetBackup add-in is installed on a Windows host that has a non-English system locale, SCVMM may issue a message when the installation completes.

See "Installation message regarding localized environments" on page 18.

The imported add-in appears in the **Jobs** window of the SCVMM console, and in the **Settings** workspace under **Console Add-ins**.

Home								^ 🤅
Create Create Run Create Servicing User Role As Account Window	g Import Console Add-in	Backup	PowerShell Jobs PRO	Remove	Properties			
Create	Import	Backup	Window	Remove	Properties			
Settings <								
ta General								م
A 💦 Security	Name	Aut	hor	⊤ De	escription			Version
	Veritas NetBackup Add	in Veri	itas Technologies L	LC Ve	eritas NetBackı	up SCVMM Add-in for	restoring virtual mach	nin 8.1.0.0
🛃 Run As Accounts								
Servicing Windows	Ē.				Jobs		-	. 🗆 X
遵 Configuration Providers	Recent Jobs (2)							
🗃 System Center Settings								٩
Console Add-ins	Name			S	tatus 👻	Start Time	<ul> <li>Result Name</li> </ul>	Owner 👻
10.2	📀 Install console a	dd-in: Verit	as NetBackup Add	-in Co	mpleted	9/1/2017 10:57:38 PM	A Object Deleted	WIN2012
Microsoft Azure Site Recovery								
	🔮 Install console a	dd-in: Veri	itas NetBackup Ad	d-in				~
	Show this windo	w when new	w objects are creat	ed			Restart	Cancel

**14** If you had logged into the SCVMM console with your own credentials, restart the SCVMM console when prompted.

**Note:** If you selected the **Use current Microsoft Windows session identity** option, a restart is not required.

**Note:** To use the NetBackup add-in, you must log on to the SCVMM console with the Administrator role. If you log on to SCVMM with a different role, the add-in functionality is disabled.

**Note:** The first time you use the NetBackup add-in, an End User License Agreement (EULA) appears. To use the add-in, you must accept the EULA.

**15** If the NetBackup master server uses an external certificate, see the following topic:

See "Configuring the add-in for an external certificate" on page 19.

### Installation message: Add-in cannot be installed

Lack of user permissions may cause the error "Add-in cannot be installed" during installation of the NetBackup Add-in for SCVMM.

For example, the error may occur in the following situation:

- User Account Control is enabled on the SCVMM console host, and
- The user who installs the add-in on the SCVMM console is not the user who installed the System Center.

During the add-in installation, the following message appears:

	Import Console Add-in Wizard	x
Select an A	Add-in	
Select an Add-in Summary	Select an add-in to import         After you select an add-in, you will be informed whether or not the files it contains are valid. If there are no validation errors, the add-in will be installed as soon as you complete the wizard.         Add-in path:       C\Users\W_Sh\Desktop\yt\VRTSNBUAddIn.zip         Browse       Browse         Add-in cannot be installed       The assembly "Microsoft.SystemCenter.VirtualMachineManager.UIAddIns.dll" referenced by the add in assembly "was included with the add-in package.	
	Previous Next Cancel	

To grant installation permissions to all authenticated users on the SCVMM console host

1 On the SCVMM console host, browse to the following location:

C:\Program Files\Microsoft System Center 2012\Virtual Machine Manager\bin

2 Right-click the AddInPipeline folder, and click Properties.

₿.	AddInPipeline Properties					
General Shari	ing Security Previous Versions Customize					
L	AddInPipeline					
Туре:	File folder					
Location:	C:\Program Files\Microsoft System Center 2012 R2\					
Size:	127 KB (130,977 bytes)					
Size on disk:	144 KB (147.456 bytes)					
Contains:	9 Files, 5 Folders					
Created:	Thursday, October 31, 2014, 10:01:51 PM					
Attributes:	<ul> <li>Read-only (Only applies to files in folder)</li> </ul>					
	Hidden Advanced					
	OK Cancel Apply					

3 Click Advanced on the Security tab, and click Continue.

4 Select the **BUILTIN** group, and click **Edit**.

		Advanced Security	Settings for AddInPipel	
Name:	C:\Program Files	Microsoft System Center 2012	R2\Virtual Machine Manage	r\bin\AddInPipeline
Owner:	SYSTEM Change	e		
Permissions	Auditing	Effective Access		
or additiona	al information, double	e-click a permission entry. To	modify a permission entry, se	lect the entry and click Edit (if available).
ermission e				
	Principal	Access	Inherited from	Applies to
Allow	BUILTIN (BUILTIN)	Read, write & e		This folder, subfolders and files
🛃 Allow	Administrators (R\A	Ad Full control	None	This folder, subfolders and files
😣 Allow	SYSTEM	Full control	None	This folder, subfolders and files
Add Enable inh		Edit		
	I child object permiss	ion entries with inheritable pe	rmission entries from this obj	ect
Replace al				OK Cancel Apply

5 Click Select a principal.

		Permission Entry for AddInPipeline
Principal: Type:	BUILTIN (BUILTIN) Select a principal	<b>v</b>
Applies to:	This folder, subfolders and files	~
Basic perm	issions: ☐ Full control ☐ Modify ✔ Read & execute ✔ List folder contents ✔ Read ✔ Write ☐ Special permissions	

6 Enter Authenticated Users, and click OK.

Select User, Computer, Service Account, or	Group
Select this object type:	
User, Group, or Built-in security principal	Object Types
From this location:	
lab.ao.com	Locations
Enter the object name to select (examples):	
Authenticated Users	Check Names
Advanced OK	Cancel

7 To close each properties dialog, click **OK**.

The following Microsoft article contains further information on this issue:

http://support.microsoft.com/kb/2904712

8 To install the NetBackup Add-in for SCVMM:

See "Installing the NetBackup Add-in for SCVMM" on page 9.

## Installation message regarding localized environments

If the NetBackup add-in is installed on a Windows host that has a non-English system locale, SCVMM may issue a message when the installation completes. The message states that an argument cannot be validated because it contains more than 64 characters. The error results from a Microsoft limitation on the length of the add-in name, which varies with the selected locale.

For example: The following appears if Windows was set to the French system locale:



Note: This message can be ignored. The add-in is installed correctly.

### Configuring the add-in for an external certificate

The add-in communicates with the NetBackup master server securely by means of certificate-based authentication. By default, the master server uses NetBackup CA-signed certificates. As an alternative, the master server can be configured to use an externally issued certificate. In that case, use the following procedure to configure the add-in for the external certificate.

#### Configure the add-in for an external certificate

1 Enter the following command on the master server:

### Windows

```
install_path\NetBackup\wmc\bin\install\configureCertsForPlugins.bat
-registerExternalCert -certPath "path_to_external_certificate_file"
-privateKeyPath "path_to_certificate_key_file"
-trustStorePath "path to ca certificate file"
```

### UNIX, Linux

```
/usr/openv/wmc/bin/install/configureCertsForPlugins
-registerExternalCert -certPath "path_to_external_certificate_file"
-privateKeyPath "path_to_certificate_key_file"
-trustStorePath "path to ca certificate file"
```

### For example:

```
configureCertsForPlugins.bat -registerExternalCert -certPath
"c:\server.pem" -privateKeyPath "c:\key.pem" -trustStorePath
"c:\intermediateOrRootCA.pem"
```

This command configures the add-in to use the external certificate by importing the certificate into the keystore on the master server. The command options are as follows:

- -certPath: Specifies the path to the certificate for the web server. This file should have a single certificate in PEM format.
- -privateKeyPath: Specifies the path to the private key for the web server certificate.
- -trustStorePath: Specifies the path to the certificate of the intermediate or root certification authority that has issued the web server certificate. This file should have a single certificate in PEM format. The subject of this certificate should match the issuer of the web server certificate.
   For further information on external certificates, see the NetBackup Security and Encryption Guide.
- 2 Restart the NetBackup Web Management Console service on the master server.

In the Activity Monitor of the NetBackup Administration Console: Click the **Daemons** tab, right-click the service, and click **Stop Daemon**. When the service has stopped, click **Start Daemon**.

3 Renew the authentication token on the master server:

See "Renewing an authorization token" on page 33.

**Note:** Perform this step for each add-in that needs to communicate with the master server.

**4** On the add-in, remove the existing master server and then add the master server that now has the renewed token:

See "Authorizing the NetBackup add-in to restore virtual machines" on page 25.

## Reconfiguring the add-in for a NetBackup CA-signed certificate

If the master server is reconfigured to use a NetBackup CA-signed certificate, use the following procedure to configure the add-in for that certificate.

### Reconfigure the add-in to use a NetBackup CA-signed certificate

1 Enter the following command on the master server:

#### Windows

install\_path\NetBackup\wmc\bin\install\configureCertsForPlugins.bat
-registerNBCAcert

### UNIX/Linux:

/usr/openv/wmc/bin/install/configureCertsForPlugins
-registerNBCAcert

This command reconfigures the add-in to use the NetBackup CA-signed certificate.

2 Restart the NetBackup Web Management Console service on the master server.

In the Activity Monitor of the NetBackup Administration Console: Click the **Daemons** tab, right-click the service, and click **Stop Daemon**. When the service has stopped, click **Start Daemon**.

**3** Renew the authentication token on the master server:

See "Renewing an authorization token" on page 33.

**Note:** Perform this step for each add-in that needs to communicate with the master server.

**4** On the add-in, remove the existing master server and then add the master server that now has the renewed token:

See "Authorizing the NetBackup add-in to restore virtual machines" on page 25.

### Uninstalling the NetBackup Add-in for SCVMM

### To uninstall the NetBackup Add-in for SCVMM

- 1 In the SCVMM console, open the **Settings** workspace.
- 2 In the **Console Add-ins** node, click on the Veritas NetBackup Add-in and then click **Remove**.

Home							^ 🕐
Create Create Run Create Servicin User Role As Account Window	ng Import Console Add-in	Backup	≥ PowerShell ☐ Jobs ■ PRO	Rer	move Properties		
Create	Import	Backup	Window	Rer	move Properties		
Settings <							
🜆 General							٩
4 🤮 Security	Name	Autł	nor	Ŧ	Description	Version	
👶 User Roles	Veritas NetBackup Add	l-in Veri	tas Technologies LL(	С	Veritas NetBackup SC	8.0.0.0	
🕵 Run As Accounts							
Servicing Windows							
🖞 Configuration Providers							
📹 System Center Settings							
👰 Console Add-ins							
Microsoft Azure Site Recovery							

**3** When you are prompted to confirm the removal, click **Yes**.

The uninstallation should appear in the **Jobs** window of the SCVMM console.

### **Configuring the NetBackup Recovery Wizard**

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

### Table 2-2 Configuring the NetBackup Recovery Wizard

Step	Description	Reference topic
1	Create an authentication token file.*	See "Creating an authentication token for the NetBackup add-in for SCVMM" on page 23.

Step	Description	Reference topic
2	Authorize the NetBackup Add-in to restore virtual machines.	See "Authorizing the NetBackup add-in to restore virtual machines" on page 25.

 Table 2-2
 Configuring the NetBackup Recovery Wizard (continued)

\*In certain circumstances, it may be necessary to associate an authentication token with additional SCVMM console host names or IP addresses:

See "Adding or deleting an additional host name or IP address for an authentication token" on page 29.

## Creating an authentication token for the NetBackup add-in for SCVMM

To allow the add-in to restore VMs, generate an authentication token on the NetBackup master server (or certificate on the NetBackup appliance as master server). When an authentication token is created on a master server and deployed on the NetBackup add-in, it allows that add-in to restore any Hyper-V backups from that 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 clientName

### UNIX, Linux

/usr/openv/wmc/bin/install/manageClientCerts -create clientName

*clientName* is the DNS name of the SCVMM console host where the add-in is installed. The manageClientCerts command returns the location of a compressed file that contains the authentication token.

**Note:** If the SCVMM console host is a separate host from the SCVMM server, generate the token for the SCVMM console host (not for the SCVMM server host name).

**2** Provide the compressed authentication token file to the SCVMM server administrator.

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

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

See "Authorizing the NetBackup add-in to restore virtual machines" on page 25.

### 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 SCVMM administrator.

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

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

See "Authorizing the NetBackup add-in to restore virtual machines" on page 25.

### Authorizing the NetBackup add-in to restore virtual machines

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

### To authorize the add-in to restore virtual machines (or to edit or delete an authorization)

**1** Ask the NetBackup administrator to provide an authentication token file.

See "Creating an authentication token for the NetBackup add-in for SCVMM" on page 23.

**2** Copy the authentication token file to the computer or laptop where the SCVMM console is launched.

Make a note of the location.

3 In the SCVMM console ribbon, click the **NetBackup** option.

Create Host Create V Group Networ		Verview VMs	Services VM Networks Show	Veritas NetBackup™	<ul> <li>PowerShell</li> <li>Jobs</li> <li>PRO</li> <li>Window</li> </ul>
< Veritas NetBack	<sup>kup</sup> t <b>as</b> NetBacku	ip™			(i) <b>?</b>
Manage Ma Servers		v Wizard	Settings		00
		Manage	Master Servers	-	- <b>-</b> X
Maste	r Servers (0)				
Master	Server Name				Actions
		No re	cords found		
Add M	laster Server —				
Ma	ster Server Name:				
We	b services port:		8443	•	
Aut	thentication token:	You must en authenticatio	ter a file path to a Ne on token.		Browse
				Add	Cancel
					Close

### 4 Click Manage Master Servers.

**5** Enter the following under **Add Master Server** to specify a NetBackup master server and its authentication token.

Add MasterMaster Server NameServerEnter the fully qualified domain name of the master server.

- Web services port
   If the NetBackup administrator has not changed the port, accept
   the default (8443). Otherwise, contact the administrator for the
   correct port number.
- Authentication token
   Click Browse to select the authentication token file that the NetBackup administrator provided.
   Click Add. The server is added to the list of master servers that the add-in can communicate with.
- 6 To verify that the SCVMM console can communicate with the master server, click **Check Status**.

If the communication is successful, the **Connection Status** field reads **Connected**.

- 7 To add other master servers and their authentication tokens, click Add Master Server in the upper right and repeat step 5 and 6.
- 8 To delete an authorization, click the delete icon next to the master server name.

8	_ <b></b>			
Master Servers (1)	🛖 Add Master Server			
Master Server Name	Actions			
vm020.tec.com				
	_			

When the authorization is deleted, the add-in can no longer restore from the backups that the master server performed.

**9** To edit an authorization, click the edit icon opposite the master server name.

8	_ <b>D</b> X			
Master Servers (1)	🚽 Add Master Server			
Master Server Name	Actions			
vm020.tec.com	× 2			
	_			

You can enter a different web services port, or click **Update Token** to select a different authentication token.

•	Manage Master Servers	_ 🗆 🗙
Master Servers (1)		Add Master Server
Master Server Name		Actions
vm020.tec.com		🔰 🔀
Edit Master Server Details		
Master Server Name:	vm020.tec.com	
Web services port:	8443 🗢	
Authentication token:	Valid till Saturday, August 26, 2017	Update Token
	5	Save Cancel
		Close

- 10 Click Save.
- 11 Click Close.

## Adding or deleting an additional host name or IP address for an authentication token

The manageClientCerts command generates an authentication token for a specific SCVMM console host. The token gives the SCVMM console host access to the NetBackup master server where the token was generated. The token works if the SCVMM console host name is identical to the name that was entered on the manageClientCerts command.

For some environments, it may be necessary to allow the token to work with additional host names or IP addresses. An example is a clustered SCVMM server:

the request for access to the NetBackup master may come from a different host name or IP address than the one that was provided when the token was generated.

To allow access to NetBackup from such environments, you can use the manageClientCerts command to do the following:

- Add another host name (or IP address) of the SCVMM console host for the existing token. The added host name or IP address is referred to as an *alias*. Note: You can add multiple aliases for a token.
   Note that IPv4 and IPv6 addresses are supported.
- Delete a host name or IP address from a token.
- Allow the token to be used on any SCVMM console host.
- List existing aliases for a token.

The manageClientCerts command is in the following location:

#### Windows:

install path\NetBackup\wmc\bin\install\manageClientCerts.bat

### UNIX, Linux:

/usr/openv/wmc/bin/install/manageClientCerts

### Table 2-3 Add a host name or IP address for an existing authentication token

Task	Enter the following on the NetBackup master server:					
Add a host name	<pre>manageClientCerts -addAlias host_name_used_to_generate_token -HOST additional_host_name_for_token</pre>					
	Where <i>host_name_used_to_generate_token</i> is the host name that was specified when the token was generated, and <i>additional_host_name_for_token</i> is the additional host name of the SCVMM console host.					
	For example:					
	manageClientCerts -addAlias SCVMM1 -HOST SCVMM1.example.com					
	Command output:					
	Successful -addAlias, for client: SCVMM1, type: HOST, alias: SCVMM1.example.com					
	In this example, the added host name is SCVMM1.example.com.					
	<b>Note:</b> You can add multiple host names for a token. Add one host name for each instance of manageClientCerts.					

	token (continued)
Task	Enter the following on the NetBackup master server:
Add an IP address or	<pre>manageClientCerts -addAlias host_name_used_to_generate_token -IP IP_address_for_token   IP_address_with_netmask_for_token</pre>
range of IP addresses	Where <i>host_name_used_to_generate_token</i> is the host name that was specified when the token was generated. The IP address to add can be a single address ( <i>IP_address_for_token</i> ) or a range of addresses ( <i>IP_address_with_netmask_for_token</i> ).
	For example:
	To add a single IP address:
	<pre>manageClientCerts -addAlias SCVMM1 -IP 10.80.154.1</pre>
	To add a range of IP addresses using a netmask:
	<pre>manageClientCerts -addAlias SCVMM1 -IP 10.80.154.0/29</pre>
	In this example, 10.80.154.0/29 allows 6 hosts with IP addresses from 10.80.154.1 to 10.80.154.7 to use the same token.
	<b>Note:</b> For a range of IP addresses, manageClientCerts supports IP net masking, sometimes called Classless Inter-Domain Routing notation (CIDR).
	<b>Note:</b> You can add multiple IP addresses for a token. If not adding a range of addresses, add one IP address for each instance of manageClientCerts.
	Note: IPv4 and IPv6 addresses are supported.
Allow the	<pre>manageClientCerts -addAlias host_name_used_to_generate_token -ANY</pre>
token to operate with any host	Where <i>host_name_used_to_generate_token</i> is the host name that was specified when the token was generated. –ANY allows any host or any IP address to communicate with the NetBackup server by means of this token.
	<b>Caution:</b> Use the -ANY option with care. Allowing any host to use the token may introduce a security risk.

Add a host name or IP address for an existing authentication Table 2-3

Table 2-4 Remove a host name or IP address from an existing authentication token

Task	Enter the following on the NetBackup master server:
Delete a host name	<pre>manageClientCerts -deleteAlias host_name_used_to_generate_token -HOST host_name_to_delete</pre>
	Where <i>host_name_used_to_generate_token</i> is the host name that was specified when the token was generated, and <i>host_name_to_delete</i> is the name to be removed.

### Table 2-4 Remove a host name or IP address from an existing authentication token (continued)

Task	Enter the following on the NetBackup master server:					
Delete an IP address	<pre>manageClientCerts -deleteAlias host_name_used_to_generate_token -IP IP_address_to_delete</pre>					
	Where <i>host_name_used_to_generate_token</i> is the host name that was specified when the token was generated, and <i>IP_address_to_delete</i> is the IP address to be removed.					
Delete the -ANY option	manageClientCerts -deleteAlias <i>host_name_used_to_generate_token</i> -ANY Where <i>host_name_used_to_generate_token</i> is the host name that was specified when the token was generated. The -ANY option is removed from the token. If particular aliases (host names or IP addresses) had been added for the token, those aliases remain in force.					

 Table 2-5
 List the host names or IP addresses (aliases) that have been defined for a token

Task	Enter the following on the NetBackup master server:				
List host	<pre>manageClientCerts -listAliases host_name_used_to_generate_token</pre>				
names or IP addresses (aliases)	Where <i>host_name_used_to_generate_token</i> is the host name that was specified when the token was generated.				
()	For example:				
	manageClientCerts -listAliases SCVMM1				
	Command output:				
	Aliases for SCVMM1: HOST = SCVMM1.example.com				
	In this example, the alias is SCVMM1.example.com. If the token was set with the -ANY option (to accept connections from any host or any IP address), the -listAliases output is the following:				
	Aliases for SCVMM1: HOST = *				

Further assistance is available:

See "Troubleshooting master server communication failures in the NetBackup Add-in for SCVMM" on page 54.

### Revoking an authorization token

You can delete or revoke an authentication token, as follows.

### To revoke the authorization token

• Enter the following on the master server:

#### Windows

install\_path\NetBackup\wmc\bin\install\manageClientCerts.bat
-delete clientName

### UNIX, Linux

/usr/openv/wmc/bin/install/manageClientCerts -delete clientName

Where *clientName* is the DNS name of the SCVMM console host where the add-in is installed.

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

### Renewing an authorization token

You can renew an authentication token that has expired, as follows.

Note: Authentication tokens expire after one year.

#### To renew an authentication token

1 Enter the following on the master server:

#### Windows

install\_path\NetBackup\wmc\bin\install\manageClientCerts.bat
-renew clientName

### UNIX, Linux

/usr/openv/wmc/bin/install/manageClientCerts -renew clientName

Where *clientName* is the DNS name of the SCVMM console host where the add-in is installed.

The -renew option deletes the token and creates a new one. Any aliases that existed for the token are retained.

See "Listing all current authorization tokens" on page 34.

See "Adding or deleting an additional host name or IP address for an authentication token" on page 29.

2 Use the add-in's **Register Master Servers** option to re-register the master server using the renewed authentication token.

See "Authorizing the NetBackup add-in to restore virtual machines" on page 25.

### Listing all current authorization tokens

You can list all the current authentication tokens that were generated on the current master server.

### 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/openv/wmc/bin/install/manageClientCerts -list

### Sample output:

Client

Expiry Date

SCVMM_console_host_1	Thu	Feb	06	16:16:51	GMT+05:30	2016
SCVMM_console_host_2	Fri	Feb	07	11:22:53	GMT+05:30	2016

The command lists the SCVMM console hosts for which the tokens were created as well as their expiration dates. It can help diagnose communication problems between the SCVMM console 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 "…".

## Chapter

# Recovering virtual machines

This chapter includes the following topics:

- Notes on restoring Hyper-V virtual machines with the Recovery Wizard
- Accessing the Recovery Wizard
- Restore Virtual Machine Wizard screens
- Checking the status of a recovery job

## Notes on restoring Hyper-V virtual machines with the Recovery Wizard

Use the NetBackup **Recovery Wizard** in the SCVMM console to restore a virtual machine from its NetBackup image.

Note the following about the NetBackup Add-in Recovery Wizard:

- The NetBackup Recovery Wizard is for restore of an entire virtual machine, not for restore of individual files. To restore individual files from the virtual machine backup, use the NetBackup Backup, Archive, and Restore interface.
   See the topics on restoring individual files in the NetBackup for Hyper-V Administrator's Guide.
- The NetBackup Recovery Wizard does not support restore to a staging location. To restore the virtual machine to a staging location, use the NetBackup Backup, Archive, and Restore interface.
- Changes that are made through Hyper-V Manager on individual Hyper-V hosts or clusters can take up to 24 hours to be reflected in the SCVMM Console. Until then, the NetBackup add-in Recovery Wizard may not have the latest virtual

machine configuration state. In that case, the Recovery Wizard's pre-recovery checks related to the VM's location may not be based on the most recent data in SCVMM. You may have to make a different selection in the Recovery Wizard. See "The pre-recovery checks in the Recovery Wizard of the NetBackup Add-in for SCVMM return out-of-date information about the VM" on page 52.

- The NetBackup Administration Console includes the following enhancements for restoring a VM:
  - A new VM GUID is generated by default when you restore a VM to an alternate location.
  - A new VM display name can be specified when you restore a VM.

**Note:** The NetBackup Recovery Wizard does not support these restore enhancements. Use the NetBackup Administration Console or the nbrestorevm command to generate a new GUID or set a new display name when restoring a VM.

 For the pre-requisites for using the Recovery Wizard: See "Configuring the NetBackup Recovery Wizard" on page 22.

## Accessing the Recovery Wizard

In the SCVMM console, you can launch the Recovery Wizard from the NetBackup add-in as described in this topic.

**Note:** To have access to the add-in, you must install it yourself. If you did not install it, the **NetBackup** option does not appear in the SCVMM ribbon.

#### To access the Recovery Wizard

- 1 In the SCVMM console, open the VMs and Services workspace.
- 2 Click All Hosts.

3 In the SCVMM ribbon, click the **NetBackup** option.

The first time you use the NetBackup add-in, an End User License Agreement (EULA) appears. To use the add-in, you must accept the EULA.

The components of the NetBackup add-in appear.

	Home	Folder	Host Cluster								^ 🔞
treate Create Service	Create Virtu Machine		Create Host Group	Create VM Network	Assign Cloud Cloud	Overview	VMs	Services Sho	Networks	Veritas NetBackup™	<ul> <li>PowerShell</li> <li>Jobs</li> <li>PRO</li> <li>Window</li> </ul>
VMs and	Services		< Veritas	NetBackup							
💖 Te 🜰 Cla	ouds		ē	) Veritas	NetBa	ickup™					(i) ?
Azure Subscriptions UM Networks Storage			nage Master	Por	overy Wizard		Setti	<b>}</b>			
4 🚞 All				Servers	Rec	overy wizard		Setti	ngs		
🕨 🗑 f	sa										
	ond86										
10 H	nyper1										
🊁 VN	As and Serv	rices									
🔮 Fa	bric										
🗮 Library											
Jobs											
Settings											

4 Click the Recovery Wizard.

The Virtual Machine Selection screen appears.

See "Virtual Machine Selection screen" on page 38.

## **Restore Virtual Machine Wizard screens**

Use the following screens in the NetBackup add-in to restore a Hyper-V virtual machine.

### Virtual Machine Selection screen

Use this screen to specify the virtual machine to restore.

### Figure 3-1 Virtual Machine Selection screen in the NetBackup Recovery Wizard for SCVMM

8	Recovery Wizard	- 🗆 X
Virtual Machine Sel	lection	
Virtual Machine Selection Backup Image Selection Restore Options Review Settings	Select the virtual machine to restore Master Server: vm020.tec.com VM Identifier: Please enter VM display name, hostname or GUID	
	Previous Next Cancel	]

Table 3-1	Fields in the Virtual Machine Selection screen of the NetBackup
	Recovery Wizard

Field	Description
Master Server	Use the drop-down list to select the master server that made the backup.
	If the master server is not in the drop-down, you must add the server to the master server list.
	See "Authorizing the NetBackup add-in to restore virtual machines" on page 25.
VM Identifier	Enter the display name, host name, or GUID of the virtual machine that you want to restore. <b>Note:</b> This field is not case-sensitive.
Next	When you are done, click <b>Next</b> to go to the next screen of the wizard.

### Backup Image Selection screen

Use this screen to select a backup image from which to restore the virtual machine.

8	Recovery V	/izard	
Backup Image Sele	ction		
Virtual Machine Selection	Colort the backup image to reste		
Backup Image Selection	Select the backup image to resto	re	
Restore Options	Backup Image Details	Selec	t Another Image
Review Settings	Backup Time: Aug 30 2016, 7:01PM VM Identifier: Winvm02	Policy: hyperv-policy Master Server: vm020.tec.com	
	Virtual Machine Attributes Hyper-V MVM017 Server:	VM GUID: 396DF5DA-5CCI 85A08420D383	3-4AAA-99FD-
	Virtual Machine Files		
	Name	Modification Time	Size
	/C/ProgramData/Microsoft/Windows/H /C/ProgramData/Microsoft/Windows/H		
	/C/ProgramData/Microsoft/Windows/F /C/Users/Public/Documents/Hyper-V/	2 · · ·	
	/C/Users/Public/Documents/Hyper-V/	2	
			tal Size: 8.11 MB
		Previous Next Cano	el

### Figure 3-2 Backup Image Selection screen in the NetBackup Recovery Wizard for SCVMM

Table 3-2

Fields in the Backup Image Selection screen

Field	Description
Backup Image Attributes	Lists the information about the virtual machine backup image.
	By default, the most recent backup image is displayed.
Select Another Image	Click this option to select a different backup image. See the table in the following topic:
	See "Select Another Image screen" on page 41.
Virtual Machine Attributes	Lists the information about the virtual machine at the time it was backed up.
Virtual Machine Files	Lists the files that are included in the virtual machine image.
	<b>Note:</b> To see the entire path, you can pull the <b>Name</b> column border to the right, or hover over the row to display a tool tip.
Next	When you are done, click <b>Next</b> to go to the next screen of the wizard.

### Select Another Image screen

Use the **Select Another Image** screen to find a backup image, then select the image in the lower pane and click **Select**. The virtual machine files from that image are displayed in the **Backup Image Selection** screen.

Figure 3-3 Select Another Image screen in the NetBackup Recovery Wizard for SCVMM

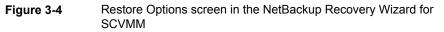
E Sele		other Image	_ <b>D</b> X				
Select a preset below or specify a custom date range to search backup images							
Last 7 Days Last 14 Days	Last 7 Days Last 14 Days Last 30 Days Custom						
Backup Time	Schedule Type	Policy	Size				
Aug 30 2016, 7:01PM	Full	hyperv-policy	8.11 MB				
			Select Cancel				

 Table 3-3
 Fields in the Select Another Image screen

Field	Description
Last 7 Days	Shows the backup images that were made within the last week,
Last 14 Days	last 2 weeks, last month, or within a period that you specify.
Last 30 Days	Click <b>Custom</b> to select the period. Use the pull-down arrows to select a different date, and click <b>Search</b> . The images that fall within
Custom	the search dates are displayed.
	Select an image and click Select.

### **Restore Options screen**

Use this screen to specify destination options for the restored virtual machine.



•	Recovery Wizard	_ [	x
Restore Options			
Virtual Machine Selection	Select the restore options		
Backup Image Selection			
Restore Options	Restore Destination		
Review Settings		Change Browse	
	Restore Options <ul> <li>Overwrite existing virtual machine</li> </ul>		
	Previous Next Cancel	I	

### Table 3-4 Fields in the Restore Options screen

Fields	Description
Restore Destination	Lists the details on the restore destination.
VM identifier	The display name or other identifier of the virtual machine to restore.
Hyper-V server	The Hyper-V server on which to restore the virtual machine. The default is the original server.
	To restore the virtual machine to an alternate Hyper-V server, click <b>Change</b> and use the pull-down to select a different server.
	The pull-down lists the Hyper-V servers that the SCVMM server manages.

Fields	Description			
Restore Location	The directory in which to restore the virtual machine. The default is the original directory.			
	To select an alternate restore directory, click <b>Browse</b> and select the directory:			
	Select Destination Folder			
	Browsing min-vm19.eng min-vm19.eng C:\ [9.73 GB free of 40.00 GB, SAN (Migration Capable)] Storage (F:\) [418.92 GB free of 500.00 GB, SAN (Migration Capable)] SRECYCLE.BIN d. SRECYCLE.BIN d. Second Exported Virtual Machines (E:\) [72.68 GB free of 100.00 GB, SAN (Migration Capable)]			
	Explore directory       OK       Cancel         Note: To create a new directory for the restore location, click the			
	<ul> <li>Explore directory link at the bottom of the Select Destination Folder dialog. Administrator privileges may be required.</li> <li>Note: When browsing for directories, the Microsoft</li> <li>RemoteFileBrowserDialog widget may display a dynamic volume with its GUID instead of with a volume letter. You can still select a destination folder under the GUID-identified volume. See the following Microsoft article on this issue:</li> <li>Using Dynamic Disks to host virtual machine files in Virtual Machine</li> </ul>			
	Manager			
Reset to Original	Resets the restore location to the original Hyper-V server and original directory.			
Restore Options	Lists the restore options.			
Overwrite	If a virtual machine with the same display name exists at the destination, that virtual machine must be deleted before the restore begins.			
existing virtual machine	Otherwise, the restore fails.			

**Table 3-4**Fields in the Restore Options screen (continued)

Table 3-4	Fields in the Restore Options screen (continued)
Fields	Description
Next	When you are done, click <b>Next</b> to go to the next screen of the wizard.

### **Review Settings screen**

Use this screen to review the settings that are used for the recovery and to start the recovery.

Figure 3-5 Review Settings screen in the NetBackup Recovery Wizard for SCVMM

		Recovery Wizard			_ <b>D</b> X
Review Settings					
Virtual Machine Selection Backup Image Selection Restore Options		gs and initiate restore			
Review Settings	Virtual Machine D VM Identifier: Image Details	Winvm02	Original Hyper-V Server:	MVM017	
	Backup Time: Schedule Type:	Aug 30 2016, 7:01PM Full	Policy: Master Server:	hyperv-policy vm020.tec.com	i.
	Restore Destination		Destination Hyper-V Server:	MVM017	
	Restore Options Overwrite Existing	VM: Yes			
		[	Previous	t	Recover

### **Table 3-5**Fields in the Review Settings screen

Field	Description	
Virtual Machine Details	Lists the details of the virtual machine that is selected for restore.	
Image Details	Lists the details of the backup image from which the virtual machine is to be restored.	

Field	Description
Restore Destination	Lists the details of the restore destination.
Restore Options	Lists the restore options.
Recover	Runs pre-recovery checks to validate your selections. If the checks are successful, it starts the recovery.
	When you click <b>Recover</b> , a pop-up shows the job ID of the recovery job. The following topic explains how to check the status of the recovery:
	See "Checking the status of a recovery job" on page 45.
	<b>Note:</b> If changes to the VM were recently made through Hyper-V Manager (not through SCVMM), the pre-recovery checks may encounter out-of-date information about the VM.
	See "The pre-recovery checks in the Recovery Wizard of the NetBackup Add-in for SCVMM return out-of-date information about the VM" on page 52.

**Table 3-5**Fields in the Review Settings screen (continued)

## Checking the status of a recovery job

You can check the status of a recovery job that is in progress and view the history of all recovery jobs.

### To check the status of a recovery job

- 1 In the SCVMM console, open the **Jobs** workspace.
- 2 For the jobs that are in progress, click **Running**.

Home Home										^	• 🕜
Refresh Load More	Recent	Last 24 Hours		Restart	Cancel	27 PowerShell Dobs					
Results			Date Filter	Jo	b	Window					
Jobs	<	Runnii	ng Jobs (1)								
民 Running											٩
History		Ν	Name		Status	Ŧ	Start Time	Ŧ	Result Name	Owner	~
		🕑 F	Restore Win2 (Job: 62 ID:	86b8960c)		96 %	11/25/2014 1:1	2:05 PM		MIN\dd	
		<				Ш					>

The Status column shows the job's percent completion.

**3** For a listing of recent jobs and past jobs, click **History**.

Home					^
Refresh Load More Results	Last 24 Hours Days Date Filter	Restart Cancel	<ul> <li>PowerShell</li> <li>Jobs</li> <li>PRO</li> <li>Window</li> </ul>		
lobs <	History – Recent Jobs (1,000) Last refresh: 11/25/2014 3:06:56				
History	Name	Status	· Start Time	Result Name	Owner -
🚺 Critical Failures	8 Restore Win2	Failed	11/25/2014 2	:55:05 PM Job Failed	MIN\dd
	-	Failed	11/25/2014 2		MIN\vmadmin
		Completed	11/25/2014 2	· · · · · · · · · · · · · · · · · · ·	MIN\vmadmin
	<ul> <li>Refresh virtual machine</li> <li>Restore Win2 (Job: 63 ID:</li> </ul>	Completed 7555fcf7)	11/25/2014 2	:44:36 PM min-vm18.eng	MIN\vmadmin
w VMs and Services	Status: Failed Command: New-SCExternal Result name:	Error (27	301)	ackup error code 2821	
Fabric	Started: 11/25/2014 2:55 PM	505	ended Action	ickup enor code 2621	1
🧮 Library	Duration: 00:13:10		ction again or conta	ct your administrator.	*
Jobs	Owner: MIN	Copy Errors			
	Summary Details Change Tr	acking			

For all jobs not in progress, the Status column reads Completed or Failed.

If the NetBackup master server is disconnected or goes down during the recovery, the **Status** column is updated to:

Failed - Lost connection with NetBackup Master Server.

Note: You can reorder the listing by clicking on a column header.

Note: The **Restart** and **Cancel** buttons are not supported and are grayed out.

## Chapter

## Troubleshooting

This chapter includes the following topics:

- About logging for the NetBackup Add-in for SCVMM
- Viewing log messages for the NetBackup Add-in for SCVMM
- Changing the logging level for the NetBackup Add-in for SCVMM
- The pre-recovery checks in the Recovery Wizard of the NetBackup Add-in for SCVMM return out-of-date information about the VM
- Next button in the NetBackup Add-in Recovery Wizard is enabled even though required input has not been entered
- The NetBackup Add-in Recovery Wizard does not prompt to overwrite the VM, and the recovery fails
- Troubleshooting master server communication failures in the NetBackup Add-in for SCVMM

# About logging for the NetBackup Add-in for SCVMM

The NetBackup Add-in for SCVMM records log messages about the following activities:

- Restoring VMs by means of the NetBackup add-in.
- Adding or removing NetBackup master servers from the NetBackup add-in.

Logging details	Description
Log message format	yyyy-mm-dd hh:mm:ss,ms [pid] message For example: 2014-09-24 14:57:32,408 [1] INFO - Loading SCVMMAddin
Logging levels	Several logging levels (verbosity) are available: See "Changing the logging level for the NetBackup Add-in for SCVMM" on page 51.
Log location	The log location depends on where SCVMM is installed and who is logged on. The following is an example log location for user JDoe: C:\Program Files\Microsoft System Center 2012 R2\Virtual Machine Manager\Bin\AddInPipeline\AddIns\JDoe\SymcNBUAddI \Logs See "Viewing log messages for the NetBackup Add-in for SCVMM " on page 49.
Log retention period	All log messages are written to the same log file in a 24-hour period. Each log file is retained for 7 days and then is automatically deleted.

 Table 4-1
 Logging for NetBackup Add-in for SCVMM

# Viewing log messages for the NetBackup Add-in for SCVMM

Note: Log files are retained for 7 days and then are automatically deleted.

**Note:** If no log-related activity occurs in the NetBackup add-in during a 24-hour period, no log file is created.

### To view the NetBackup Add-in for SCVMM log messages

- 1 In the SCVMM console, open the VMs and Services workspace.
- 2 Click All Hosts.
- 3 In the SCVMM ribbon, click the **NetBackup** option.

- 4 Click Settings.
- 5 Click View Logs.



The log files are shown as follows:

🔉 l 🕞 🚯 = l				Logs		
File Home Shar	re View					
🔄 🕘 = 🕇 퉬 « I	Program Files 🔸 Microsoft System Center 2012 R2	<ul> <li>Virtual Machine Mar</li> </ul>	ager ► bin ► AddIn	Pipeline 🕨 Addlr	ns ▶ User1 ▶ SymcNBUAde	dIn ▶ Logs
🛠 Favorites	Name	Date modified	Туре	Size		
Desktop	SymcNBU_addin_2014-09-30.log	9/30/2014 3:34 PM	Text Document	0 KB		
Downloads						
🖳 Recent places						
👰 This PC						
⊊ C						
i Desktop						

**Note:** The logs are written to the directory where you installed the NetBackup add-in.

6 Double-click on a log file.

The log file opens as follows:

	SymcNBU_addin_2014-09-24.log - Notepad	
File	Edit Format View Help	
201	-09-24 14:43:41,465 [1] DEBUG - Manage Master Servers	^
201	I-09-24 14:43:53,437 [1] DEBUG - Settings	
201	I-09-24 14:44:04,335 [1] INFO - Changing log level to ERROR	
201	I-09-24 14:44:26,911 [1] DEBUG - Settings	
	I-09-24 14:44:38,515 [1] DEBUG - Open log directory: C:\Program Files\Microsoft System Center	
	I-09-24 14:46:23,741 [1] DEBUG - Open log directory: C:\Program Files\Microsoft System Center	
	I-09-24 14:46:51,027 [1] DEBUG - Settings	
	I-09-24 14:46:53,117 [1] DEBUG - Open log directory: C:\Program Files\Microsoft System Center	
	I-09-24 14:48:19,056 [1] DEBUG - Open log directory: C:\Program Files\Microsoft System Center	
	I-09-24 14:50:09,688 [1] DEBUG - Settings	
	I-09-24 14:50:10,563 [1] DEBUG - Open log directory: C:\Program Files\Microsoft System Center	
	I-09-24 14:57:32,408 [1] INFO - Loading SCVMMAddin	
	I-09-24 14:57:32,422 [1] DEBUG - Clean up log files	
	I-09-24 14:57:34,685 [1] DEBUG - Settings	
201	I-09-24 14:57:40,292 [1] INFO - Changing log level to ERROR	
		$\sim$
	III	, di

7 When you are finished, close the **Logs** window and click **Cancel**.

# Changing the logging level for the NetBackup Add-in for SCVMM

### To change the logging level

- 1 In the SCVMM console, open the VMs and Services workspace.
- 2 Click All Hosts.
- **3** Click the **NetBackup** option in the SCVMM console ribbon.
- 4 Click Settings.

5 Use the Set Log Level pull-down to select a different level.

E	Settings	X
Set Log Level:	Error	View Logs
	Error	
	Warning	
	Information	Cancel
	Debug	Cancer

By default, logging is set to the minimum level of detail (Error level). The following levels are available:

Error	The default level.
Warning	Includes the error messages.
Information	Includes the warning and the error messages.
Debug	Includes the information, warning, and error messages - the highest level of detail.

6 Click Save.

## The pre-recovery checks in the Recovery Wizard of the NetBackup Add-in for SCVMM return out-of-date information about the VM

When you click **Recover** on the **Review Settings** screen of the Recovery Wizard, the wizard runs pre-recovery checks to validate your selections and the recovery destination. However, if changes to the VM were recently made through Hyper-V Manager (not through SCVMM), the pre-recovery checks may encounter out-of-date information about the VM. Changes that are made through Hyper-V Manager on individual Hyper-V hosts or clusters can take up to 24 hours to be reflected in SCVMM. This delay is due to the Microsoft SCVMM refresh cycle, which the NetBackup add-in does not control.

For example: If the VM was recently deleted through the Hyper-V Manager, the deletion may not be reflected yet in SCVMM. In this case, the add-in's pre-recovery checks report that the VM still exists. The following message appears:

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Next button in the NetBackup Add-in Recovery Wizard is enabled even though required input has not been
entered

A virtual machine with the same identity exists on <host> and the overwrite option was not selected. Please review restore options and select overwrite to continue.

To recover the VM, go back to the wizard's **Restore Options** screen and select **Overwrite existing virtual machine**, and rerun the recovery.

**Note:** In an SCVMM environment, Microsoft recommends making VM configuration changes through SCVMM (not through the Hyper-V Manager on individual hosts or clusters). Changes that are made through the SCVMM Console are reflected immediately in SCVMM. The add-in's pre-recovery checks therefore reflect the current state of the VM.

## Next button in the NetBackup Add-in Recovery Wizard is enabled even though required input has not been entered

In the Recovery Wizard of the NetBackup Add-in for SCVMM, the **Next** button is enabled even if some required input has not been entered. In the following case, the Recovery Wizard of the NetBackup Add-in for SCVMM enables the **Next** button prematurely:

- On the Add-in's Manage Master Servers screen, an authentication token was added for an invalid master server. For example: The token was generated for an existing master server, but the server name was entered incorrectly on the Manage Master Servers screen.
- A second master server and its authentication token are added, and the master server's name is entered correctly.

When you select the second master server in the wizard's Virtual Machine Selection screen, you can click **Next** without selecting a VM identifier. The wizard lets you progress from screen to screen without completing the input for each screen. If you continue without making the required input, the Recovery button on the wizard's last screen is grayed out.

**Note:** The wizard's **Next** button should remain grayed out until the input for each screen is completed. To run the restore, go back through the wizard and make the required entries. You should also delete the invalid master server.

# The NetBackup Add-in Recovery Wizard does not prompt to overwrite the VM, and the recovery fails

The NetBackup Add-in for Microsoft SCVMM Console does not complete a VM recovery in the following situation:

- On the Virtual Machine Selection screen of the Add-in Recovery Wizard, the VM is identified by its GUID or host name (not its display name).
- On the Restore Options screen of the wizard, the Overwrite existing virtual machine option is not selected.
- The same VM exists at the recovery destination.

When you click **Recover**, the wizard should detect the VM at the recovery destination and then prompt you to select the overwrite option. However, the prompt does not appear; the recovery job starts but then fails with status 2821.

To recover the VM, select **Overwrite existing virtual machine** on the **Restore Options** screen and rerun the recovery.

# Troubleshooting master server communication failures in the NetBackup Add-in for SCVMM

To recover VMs, the add-in must have a registered NetBackup master server with a valid and correct authentication token. The NetBackup administrator generates the authentication token on a specific NetBackup master server for a specific SCVMM console host. The token gives the SCVMM console host access to the NetBackup master server where the token was generated. (Note: you can validate authentication tokens for currently registered master servers by means of the **Manage Master Servers** option in the add-in.)

If the TCP/IP address or host name of the SCVMM console host does not exactly match the information in the authentication token, the following operations fail: the Manage Master Servers operation, and VM recovery. Error messages such as the following may appear:

Unable to connect the Netbackup Master Server. Do you want to add this master server?

Authentication failed. Please verify that the master server token is valid and correct using the 'Manage Master Servers' dialog box

To correctly determine the problem and the corrective action, you must review the VxUL log file. On the master server, enter the following command:

vxlogview -i nbwebservice -p nb -L -E

### Error example 1

The log file includes messages similar to the following:

02/17/2017 10:03:37.831 [Error] Remote host name does not match the name in the certificate, remote name:scvmm02.domain.com, name from certificate:scvmm02

In the log snip shown, the name in the token is scvmm02 and the required name is scvmm02.domain.com.

Veritas recommends that you revoke the existing token, generate a new token with the required name, and use the new token on the SCVMM console host. If you cannot do that, add the SCVMM console host's fully qualified domain name as an alias for the existing token, as follows:

manageClientCerts -addAlias scvmm02 -HOST scvmm02.domain.com

As an alternative, you can use the -ANY option:

manageClientCerts -addAlias scvmm02 -ANY

-ANY allows any host or any IP address to communicate with the NetBackup server by means of this token.

**Caution:** The -ANY option is not a secure method for restores. Please see the *NetBackup Commands Reference Guide* for more information on the manageClientCerts command.

### Error example 2

The log file includes messages similar to the following:

```
02/17/2017 16:18:13.951 [Error] Remote host name does not match the name in the certificate, remote name:10.10.10.11, name from certificate:scvmm02
```

In the log snip shown, the name in the token is scvmm02 and the required name is 10.10.10.11.

Veritas recommends that you revoke the existing token, generate a new token with the required name, and use the new token on the SCVMM console host. If you cannot do that, add the SCVMM console host's TCP/IP address as an alias for the existing token, as follows:

manageClientCerts -addAlias scvmm02 -IP 10.10.10.11

As an alternative, you can use the -ANY option:

manageClientCerts -addAlias scvmm02 -ANY

-ANY allows any host or any IP address to communicate with the NetBackup server by means of this token.

Caution: The -ANY option is not a secure method for restores.

Additional information is available:

See "Adding or deleting an additional host name or IP address for an authentication token" on page 29.

See the manageClientCerts command in the NetBackup Commands Reference Guide.