



Dell™ NetVault™ Backup Plug-in for Hyper-V® 10.5 Release Notes, Revision 1

August 2015

Revised September 2015

These release notes provide information about the Dell™ NetVault™ Backup Plug-in for Hyper-V® release.

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About this release

Dell NetVault Backup (NetVault Backup) Plug-in for Hyper-V (Plug-in for Hyper-V) 10.5 is a minor release, with enhanced features and functionality. For complete product documentation, visit <http://software.dell.com/support/>.

- ① **IMPORTANT:** Starting with 10.0.0, NetVault Backup provides a web-based user interface (WebUI) to configure, manage, and monitor your NetVault Backup system and installed plug-ins. The procedures described in the user's guide for this version of the plug-in are intended for the new WebUI. For procedures based on the NetVault Backup Console (user interface available with NetVault Backup 9.x), see the documentation for an earlier version of the plug-in.

New features

New features in Plug-in for Hyper-V 10.5:

- Added support for renaming a virtual machine (VM) during an image-level restore. (FB 17229)
- Added support for file-level restores from image-level backups. (FB 17387)

This addition includes support for the following types of partitions and file systems:

- Master Boot Record (MBR)
- GUID Partition Table (GPT)
- Windows Server® New Technology File System (NTFS)
- Extended file systems: EXT2, EXT3, and EXT4
- Volumes managed by Logical Volume Manager (LVM) on Linux-based systems and Logical Disk Manager (LDM) on Windows-based systems as single or spanned disks
- Added support for NetVault Backup Virtual Client and failover cluster functionality. (FB 17459)

① **IMPORTANT:** NetVault Backup Virtual Client usage requires a Cluster Support license. If you have a valid Plug-in for Hyper-V license, you can also request a Cluster Support license for this release. For information on the licensing process, including how to obtain the proper license keys, see the *Dell NetVault Backup Installation Guide*.

Enhancements

The following is a list of enhancements implemented in Plug-in for Hyper-V 10.5.

Table 1. General enhancements

Enhancement	Issue ID
For Windows Server® 2012 and 2012 R2, added a Show VMs being managed by a cluster option to the Configure dialog box. To avoid confusion, Dell recommends that you do <i>not</i> enable this option.	FB 17297
For environments that use Windows Server 2012 and 2012 R2, increased the number of parallel write streams that can be run, which improves load balancing. You can increase the value up to 32.	FB 17469
Added support for hardware-based Volume Shadow Copy Service (VSS) providers, including Dell Compellent™ and EqualLogic™. Includes support of automatic failover to the software provider if errors occur with the hardware provider.	FB 17672

Resolved issues

The following is a list of issues addressed in this release.

Table 2. General resolved issues

Resolved issue	Issue ID
Corrected an issue in which recovering a VM in a Windows Server 2008 R2 environment appeared to succeed but a check of the Windows Event Viewer revealed the following message: <code>Cannot load a virtual machine configuration. General access denied error.</code>	FB 17332, FB 17335
Restored support for file-level backups and restores. To complete a file-level backup, process an image-level backup with the new Enable indexing for File Level Recovery option selected. Indexing lets you perform a subsequent file-level restore.	FB 17383
Corrected an issue that prevented a Windows Server® 2008 R2-based Hyper-V cluster from locating and backing up a VM on a remote host.	15117 (HYV-124), FB 17635
Corrected an issue that prevented an individual VM from displaying correctly. If the VM was the only entry and displayed as part of a cluster or listed under localhost, the name of the VM was not displayed.	FB 17636
Corrected an issue that caused backups to fail when a cluster includes more than nine Cluster Shared Volumes (CSVs).	FB 17776

Known issues

The following is a list of issues, including issues attributed to third-party products, known to exist at the time of release.

Table 3. General known issues

Known issue	Issue ID
The network adapter configuration is occasionally lost during recovery of a VM. If this issue occurs, manually select the network adapter from the Hyper-V® Manager.	15132 (HYV-22)
The Percentage Complete progress bar in the Monitor Job page is not currently populated with the appropriate progress of the job.	15160 (HYV-48)
The plug-in does not currently handle VMs that have names ending with a whitespace.	15171 (HYV-58)
The plug-in does not support Hyper-V® installations that have two or more VMs that share identical names.	15186 (HYV-71)

Table 3. General known issues

Known issue	Issue ID
<p>If you are using the Hyper-V® Role for Windows Server® 2008 R2 with Simplified Chinese, French, German, and Korean, permission is not correctly granted during the VM recovery, which renders the VM unrecognizable by Hyper-V® Manager. To grant permission to the restored files manually, run the following command on all restored files, including .vhd, .avhd, .xml, .bin, and .vsv, for the VM.</p> <pre>icacls <restore_file> /grant "NT VIRTUAL MACHINE/<VMID>":F /l</pre> <p>Replace "NT VIRTUAL MACHINE" with the language equivalent.</p>	21572
<div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;"> <p>Simplified Chinese: "NT 虚拟机"</p> <p>French: "Ordinateur Virtuel NT"</p> <p>German: "NT Virtueller Computer"</p> <p>Korean: "NT 가상 컴퓨터"</p> </div>	
<p>For example:</p>	
<pre>icacls "C:\ProgramData\Microsoft\Windows\Hyper-V\VirtualMachine\2CAB416C-6B89-4B76-958A-CEAE95D33BAD.xml" /grant "Ordinateur Virtuel NT\2CAB416C-6B89-4B76-958A-CEAE95D33BAD":F /l</pre>	
<p>The VMID is the GUID of the VM. Usually, the GUID is the same as the name of the .xml file.</p>	
<p>The "/l" is needed for symbolic-link files.</p>	
<p>The plug-in fails to mount an online virtual machine for backups if the VM name is too long. This length causes the "expose path," formed by combining the paths to the plug-in Working Directory and the virtual disk files, to exceed 260 characters.</p>	22818
<p>If you are using the Hyper-V Role for Windows Server 2012 or 2012 R2 with a localized version of the NetVault Backup Server or Client, or both, manually remove the VM <i>before</i> initiating image-level recovery. Otherwise, recovery fails even though files are correctly restored to the Working Directory.</p>	28005, FB 17369
<p>Names of VMs targeted for backup cannot contain Unicode Characters. Backing up a VM that contains Unicode Characters in its name generates an "Error writing to backup media" message.</p>	FB 17225
<p>If you use a localized version of the plug-in, the following items are not translated: Options included in the Actions list and on the Plugin Options dialog box, and Messages listed on the Job Status or View Logs page.</p>	FB 17344, FB 17346, FB 17351, FB 17361
<p>If you restore a VM whose source has the same disk ID as the host, the VM displays an error (0xc000000e) and fails to start.</p>	FB 17393
<p>Workarounds:</p>	
<ul style="list-style-type: none"> • Run the BCDEdit command-line tool, and point the boot manager to the correct disk. • If the source VM is cloned from the same Virtual Hard Disk (VHD or VHDX), update the disk ID of the source VM. That is, change the disk ID inside each cloned VM. 	
<p>Running a backup job that targets a VM whose operating system (OS) resides on a passthrough disk does not fail properly. This configuration is not supported; the backup job should fail and indicate that no disks were backed up. Instead of failing the job, the plug-in erroneously backs up configuration, .xml and recover_ctx.dat, files.</p>	FB 17395
<p>If your environment uses Windows Server 2008 R2 as the Hyper-V Server and you use the Rename feature during a restore, the recovery does not include network adapters that the VM backup included. After recovery is finished, use Hyper-V Manager to add the network adapters for the VM.</p>	FB 17804
<p>If your environment uses Windows Server 2008 R2 for Hyper-V Clustering, the number of parallel write streams that can be run is one. If you change the number, the plug-in prevents multiple backup streams from running simultaneously.</p>	FB 17808

Table 3. General known issues

Known issue	Issue ID
If you perform a file-level restore, do not use the Rename option in the Actions list for the VM node. Although the option is enabled, the plug-in ignores the Rename field and the restore completes with warnings.	FB 17824
If your environment includes Linux VMs and you perform a file-level recovery of a job that contains files with the same name but different capitalization, the job might complete with warnings. Because Windows is not case-sensitive, it does not recognize the distinction between the two files. All other selected files are recovered.	FB 17829
The plug-in does not correctly index compressed or sparse New Technology File System (NTFS) files on Windows Server. Because of this issue, you cannot recover compressed or sparse NTFS files during file-level recovery.	29043, FB 17836
The plug-in does not correctly index sparse files on extended (EXT) Linux file systems. Because of this issue, the sparse files cannot be recovered during file-level recovery.	27629, FB 17841
Workaround: To recover sparse files, perform an image-level recovery.	
The plug-in does not support recovery of backups taken using version 1.7, and it does not support file-level recovery of backups taken using version 10.0.1.	FB 17843
Workaround: To recover sparse files from backups taken using version 1.7, perform an image-level recovery.	
If your environment uses Windows Server 2012 or 2012 R2 as the Hyper-V Server and you use the default Virtual Hard Disks directory to store the VM's virtual disks, make sure that all the VM's disks reside in the same directory. If any disks reside elsewhere, recovery fails. This requirement is a limitation of the Hyper-V Import-VM cmdlet used in Windows PowerShell® to create the VM during recovery.	FB 17846
Workaround for a failed recovery:	
<ol style="list-style-type: none"> 1 To locate the disks expected by Import-VM cmdlet, do one of the following: <ul style="list-style-type: none"> • Move all VHD or VHDX files from the Virtual Hard Disks directory to another directory, and delete the Virtual Hard Disks directory. • Move all VHD or VHDX files to the Virtual Hard Disks directory. 2 Update the VM's .xml configuration file to reflect the paths for any relocated VHD or VHDX files. 3 To import the VM, do one of the following: <ul style="list-style-type: none"> • In Hyper-V Manager, use Action > Import Virtual Machine. • In PowerShell, started with elevated permissions, run: <code>Import-VM -Register -Path <pathToVMsXMLconfigFile></code> 	

Table 3. General known issues

Known issue	Issue ID
<p>If your VM relies on virtual disks created from a storage pool, the backup job fails. Also, file-level indexing is not supported.</p> <p>Workaround: Power down the VM, and run the backup job again.</p>	FB 17851
<p>Whitespace—unallocated blocks of data—in Hyper-V-based dynamically expanding Virtual Hard Disks (VHDs/VHDXs) are not ignored during backup, which might impede backup performance.</p> <p>If your environment uses fixed VHDs/VHDXs, this issue should not affect it because the plug-in has always backed up the whitespace of fixed disks.</p> <p>If your environment uses Dell DR Series appliance or EMC® Data Domain® Boost (DD Boost™) as the backup target, you should see less impact on performance than with other backup targets. These targets use source-side deduplication technology, which handles whitespace more efficiently.</p> <p>If your environment uses tape, a virtual tape library (VTL), or NetVault SmartDisk as the backup target, you might see an impact on performance. The impact depends on how much whitespace is present in the VHD/VHDX.</p> <p>Workaround: There is no workaround for this issue. If you use dynamically expanding disks and performance is affected, Dell recommends that you use Plug-in for Hyper-V- 10.0.1.</p> <p>For more information, see https://support.software.dell.com/kb/177612.</p>	FB 17952

Software requirements

Before installing Plug-in for Hyper-V 10.5, ensure that your system meets the requirements outlined in the *Dell NetVault Backup Compatibility Guide* available at <https://support.software.dell.com>.

The plug-in requires installation of Windows PowerShell® 3.0 or later. By default, Windows Server® 2008 R2 includes PowerShell 2.0, which you must update to 3.0 or later. By default, Windows Server 2012 and 2012 R2 already include 3.0 and 4.0, respectively.

Upgrade and compatibility

Plug-in for Hyper-V® 10.5 requires NetVault Backup 10.0.5 or later. For complete supported-platform information, see the *Dell NetVault Backup Compatibility Guide*.

△ | **CAUTION:** The plug-in does not support recovery of backups taken using version 1.7. If you must be able to recover backups taken using version 1.7, do not upgrade to version 10.0.1 or later.

Product licensing

To obtain the license key for your NetVault Backup Server environment, determine the NetVault Machine ID of your main NetVault Backup Server. Also identify the machine IDs of any clients running application plug-ins, such as Oracle[®], MySQL, PostgreSQL, SQL Server[®], and Exchange.

You can use the NetVault Configuration Wizard to install the product license keys. Alternatively, you can install the license keys from the Manage Clients page.

- [Obtaining a machine ID](#)
- [Installing a license key using the configuration wizard](#)
- [Installing a license key from the Manage Clients page](#)

Obtaining a machine ID

- 1 Start the NetVault Backup WebUI.
- 2 In the Navigation pane, click **Manage Clients**.
- 3 In the **NetVault Backup Clients** list, select the applicable machine, and click **Manage**.
- 4 On the **View Client** page, note the machine ID exactly as it appears in the **Client Summary** table.

Installing a license key using the configuration wizard

- 1 In the **Navigation** pane, click **Guided Configuration**.
- 2 On the **NetVault Configuration Wizard** page, click **Install Licenses**.
- 3 In the **NetVault Backup Clients** list, select the applicable machine, and click **Next**.
- 4 In the **Enter the license key string** box, type or copy and paste the license key, and click **Apply**.
After the key is applied successfully, a message is displayed.

Installing a license key from the Manage Clients page

- 1 In the **Navigation** pane, click **Manage Clients**.
- 2 In the **NetVault Backup Clients** list, select the applicable machine, and click **Manage**.
- 3 On the **View Client** page, click **Install License**.
- 4 In the **Install License** dialog box, type or copy and paste the license key, and click **Apply**.
After the key is applied successfully, a message is displayed.
- 5 To dismiss the dialog box, click **Close**.

Upgrade and installation instructions

- ① **IMPORTANT:** If you are upgrading from version 1.7 or earlier, *you must remove the existing plug-in and upgrade to NetVault Backup 10.0.5 or later before you install the new version.* The name of the plug-in was changed in version 10.0.1. This process ensures that items with the previous plug-in name are removed before items with the new name are installed.

If you are upgrading from version 10.0.1 and your environment contains a Hyper-V Cluster on the physical client, the upgrade process automatically removes the configured cluster; that is, it removes the server and credential information from the configuration file for the plug-in. The upgrade assumes that you intend to add a Virtual Client and configure the cluster again. Due to the introduction of the Virtual Client functionality, you should also delete backup jobs created for a cluster in version 10.0.1, and re-create the jobs using the new version.

If you use dynamically expanding VHDs/VHDXs, Dell recommends that you do not install this version until the Known Issue for FB 17952 is addressed.

If you intend to use the **NetVault Backup Virtual Client** functionality, do *not* complete the following procedures. The process of creating and using the Virtual Client automatically pushes the plug-in to the applicable physical clients. For complete information on using Virtual Clients, see the *Dell NetVault Backup Administrator's Guide*.

- Installing the plug-in on multiple clients simultaneously in a standalone environment
- Installing the plug-in on a specific client in a standalone environment

Installing the plug-in on multiple clients simultaneously in a standalone environment

- 1 In the Navigation pane, click **Guided Configuration**.
- 2 On the **NetVault Configuration Wizard** page, click **Install Plugins**.
- 3 On the next page, select the applicable clients.
- 4 Click **Choose Plug-in File**, and navigate to the location of the “.npk” installation file for the plug-in—on the installation CD or the directory to which the file was downloaded from the website.

Based on the OS in use, the path for this software may vary on the installation CD.

- 5 Select the file entitled “**hv-x-x-x-npk**,” where **xxxx** represents the version number and platform, and click **Next**.
- 6 Click **Next** to begin installation.

When the installation completes successfully, a message is displayed.

Installing the plug-in on a specific client in a standalone environment

- 1 In the Navigation pane, click **Manage Clients**.
- 2 On the **Manage Clients** page, select the machine that contains the Hyper-V® Server, and click **Manage**.
- 3 Click the **Install Plugin** button (+).
- 4 Click **Choose Plug-in File**, navigate to the location of the “.npk” installation file for the plug-in—on the installation CD or the directory to which the file was downloaded from the website.
Based on the OS in use, the path for this software may vary on the installation CD.
- 5 Select the file entitled “hv-x-x-x-x.npk,” where xxxx represents the version number and platform, and click **Next**.
- 6 Click **Install Plugin** to begin installation.

When the installation completes successfully, a message is displayed.

More resources

Additional information is available from the following:

- [Online product documentation](#)
- [NetVault](#)

Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations found elsewhere in the product documentation.

This release supports any single-byte or multi-byte character set. It supports simultaneous operation with multilingual data. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan.

The release is localized to the following languages: Chinese (Simplified), French, German, Japanese, Korean.

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Technical support resources

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The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. In addition, the Support Portal provides direct access to product support engineers through an online Service Request system.


The Support Portal enables you to:


- Create, update, and manage Service Requests (cases).
- View Knowledge Base articles.
- Obtain product notifications.
- Download software. For trial software, go to <http://software.dell.com/trials>.
- View how-to videos.
- Engage in community discussions.
- Chat with a support engineer.


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Legend

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

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

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