


#1 VM Backup

Veeam Backup & Replication What's New in 6.5

More ways to WOW!

Veeam Backup & Replication now protects **7 million VMs** around the globe. Here's what a few of our **50,000 customers** and others have to say about the new 6.5 release:

Wow - @Veeam Explorer for Exchange is really slick!

@JeffHengesbach

@veeam Ran my first Exchange Explorer restore and the whole process took 58.39 seconds! How awesome is that?! #veeam

@Bobbyv30

"I'll wave bye-bye to the Backup Exec Exchange agent!"

*Lars Ytte
IT Manager*

*Danish Association of
Occupational Therapists*

"We have a new powerful way to guarantee more frequent backups via storage snapshots, and have everything managed nonetheless via the Veeam console."

*Luca Dell'Oca
Virtualization and Storage Expert
Moresi.Com SA*

"If a VM admin wants to walk the walk with regard to great user support and wants to vastly simplify his or her life, this is THE tool that needs to be in the arsenal."

*Scott Lowe
Blogger and former CIO*

"Veeam understands that the real focus is on one's agility to restore, instead of just the ability to back up, so their new Exchange and SAN snapshot recovery capabilities are just more goodness in the overall solution."

*Jason Buffington
Senior Data Protection Analyst
Enterprise Strategy Group*

Virtualization changes everything—especially what you can do with backup. Veeam® recognized the disruptive power of virtualization early on, and designed a solution from the ground up specifically for the new platform.

The result is powerful, easy-to-use and affordable backup that fully leverages the virtual environment and eliminates the need for agents.

Veeam Backup & Replication™ 6.5 extends these concepts with even more groundbreaking capabilities—so you can use virtualization in more ways to deliver more value to your organization.

This document details the enhancements in version 6.5. For information about the enhancements in previous v6 releases, see the [What's New in 6.0](#) and the [What's New in 6.1](#).

E-discovery and item recovery for Exchange

Version 6.5 introduces Veeam Explorer™ for Microsoft Exchange, which provides instant visibility into backups of Exchange Server 2010 virtual machines (VMs). Browse, search and selectively restore items (emails, notes, contacts, etc.) directly from Veeam backups, replicas, and HP StoreVirtual VSA and LeftHand snapshots.

Restore from SAN snapshots

Version 6.5 also introduces Veeam Explorer for SAN Snapshots, which provides granular VMware recovery from HP StoreVirtual VSA and LeftHand snapshots. Co-developed with HP, Explorer for SAN Snapshots lets you perform Veeam restores (Instant VM Recovery, Instant File-Level Recovery and Explorer for Exchange item recovery) of VMware VMs directly from array-based snapshots.

Reminder: Although SAN snapshots can provide excellent RPOs (recovery point objectives) for certain operational disasters, they cannot serve as real backups since they would be lost along with production data in the event of a storage disaster. Thus, you should never rely solely on SAN snapshots for data protection. To ensure protection against all types of disasters, continue to perform regular backup of all VMs to backup storage using Veeam backup jobs or VeeamZIP™.

vSphere 5.1 support

Veeam Backup & Replication 6.5 provides full support for VMware vSphere 5.1. And like vSphere 5.1, Veeam Backup & Replication 6.5 supports VMs running Windows Server 2012 or Windows Server 8.

Windows Server 2012 Hyper-V support

Veeam Backup & Replication 6.5 provides full support for Windows Server 2012 Hyper-V (and Microsoft Hyper-V 2012), including:

- Changed block tracking on CSV v2 and SMB v3 shared storage
- Support for VHDX disk format
- Support for large virtual disks (up to 64TB)

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Not only does Veeam Backup & Replication 6.5 support the new version of Hyper-V, it can also facilitate deployment of 2012 Hyper-V:

- **Safeguard in-place upgrades:** Make a backup copy of VMs before performing an in-place upgrade. If something goes wrong, you can reinstall 2008 R2 Hyper-V and restore VMs from backup.
- **Simplify migration:** Backup VMs on 2008 R2 Hyper-V and restore to 2012 Hyper-V. You can also replicate VMs from 2008 R2 Hyper-V to 2012 Hyper-V.

Advanced monitoring, reporting and capacity planning

This document details the enhancements in Veeam Backup & Replication 6.5. Veeam Management Suite™ 6.5 also includes new functionality for Veeam Backup & Replication—namely, advanced monitoring, reporting and capacity planning for the backup infrastructure.

This functionality is delivered by Veeam ONE™ through new integration with Veeam Backup & Replication (both are part of the Veeam Management Suite), and includes:

- Real-time monitoring of the backup infrastructure
- Identification of unprotected VMs
- Resource analysis
- and more

For further information, see the [What's New in Veeam ONE 6.5](#).

Additional enhancements

Version 6.5 includes a number of other enhancements, as well as all patches for versions 6.0 and 6.1. The remainder of this document provides a list of the most significant enhancements.

Windows Server 2012 and Windows 8 support

Version 6.5 includes full support for Windows Server 2012 and Windows 8, including:

- **Guest OS.** Backup, replicate and restore VMs running Windows Server 2012 or Windows 8, whether on vSphere or Hyper-V, with advanced application-aware image processing.
- **ReFS volumes.** Full support for Microsoft's new Resilient File System (ReFS), including direct file restore (described later), guest file system indexing and 1-Click File Restore.
- **Global data deduplication.** Leverage data deduplication in Windows Server 2012 to minimize the size of backup repositories. This includes deduplicating data between backup files produced by different backup jobs. Veeam has tested and certified Windows Server 2012 deduplication for use with Veeam Backup & Replication.
- **Veeam components.** Install any Veeam component (backup server, backup proxy server, backup repository, Enterprise Manager) on Windows Server 2012 or Windows 8.

Engine

- **Synthetic full transformation and reversed incremental backup.** Improved performance (up to several times, depending on backup storage).
- **Storage optimization.** New storage optimization setting provides improved performance and resource utilization for backup jobs with backup files over 16TB in size.
- **Memory consumption.** Average memory consumption by the job manager process has been reduced up to 3 times.
- **Network packet loss.** Increased the processing engine's tolerance to network packet loss.
- **Network traffic verification engine.** New network traffic verification engine detects and automatically recovers from in-flight data corruption caused by malfunctioning network equipment and similar issues.
- **Improved NAT support.** Control whether the source backup proxy server or the backup repository/target backup proxy server establishes network connectivity. This is helpful when deploying Veeam Backup & Replication in a network with NAT and firewalls.
- **Storage space notification.** Added support for low disk space notification for CIFS-based backup repositories.

- **Microsoft SQL Server 2012 support.** Added support for Microsoft SQL Server 2012 as a backend database.
- **Microsoft .NET 4.0.** Migrated user interface and management components to Microsoft .NET 4.0 for reduced resource consumption and improved performance, stability and security.

Backup

- **Configuration backup.** Automatically (and periodically) backup the Veeam product configuration to a specified backup repository. Useful when your backup server is physical and cannot protect itself, and when migrating a backup server to another computer. Configuration restore automatically rescans all backup repositories and replica hosts to register any additional restore points that were created after the configuration backup took place.

Job scheduling

- **Chained execution.** Chain job execution directly in the backup console, without having to use scripts or post-job actions. New scheduler setting allows a job to start automatically once the job it depends on finishes processing all VMs.
- **Start time.** Specify an exact start time (within the hour) for jobs that run on an hourly or less frequent basis.
- **Continuous jobs.** Define an allowed window and prohibited hours for a continuous job. For consistency, continuous jobs have been moved under the periodic jobs option in the user interface.

Application-aware processing

- **EFI boot.** Added support for VMs that use EFI boot.
- **Log reduction.** Significantly reduced the number of logs produced on VMs.
- **Timeouts.** Increased network-less processing operations timeouts to reduce failures when processing VMs with applications that take longer to perform a VSS freeze.
- **Reverse order.** Added support for the *InverseVssProtocolOrder* registry value (DWORD). When this registry value is set to 1, the sequence of application-aware processing is reversed, making jobs try network-less processing mode before network processing mode.

File-level restore

- **Direct file restore.** When restoring a guest file back to its original location from the backup console (Backup Browser), perform the restore with a single click. You no longer need to supply destination information, and Veeam Backup & Replication does not have to stage the file locally on a backup server or on a network share.
- **Dynamic disks.** Extended support for file-level restores from dynamic disks to include spanned, striped, mirrored and RAID-5 volumes.
- **Backup Browser UI.** Updated the Backup Browser's user interface (UI) to match the new product UI introduced in version 6.1. Removed the hidden system partition from the volume tree. Now retrieves actual drive letters from restored guest OS settings (rather than simply assigning in sequential order).

User interface

- **Backup statistics.** Deduplication ratio now accounts for data reduction from source-side deduplication, as well as target-side deduplication.
- **Backup server version.** The version number of the backup server is now included in email reports and in the list of backup servers in Enterprise Manager.
- **Miscellaneous performance optimizations and minor enhancements.** Includes multiple UI performance optimizations and minor enhancements based on user feedback.

Licensing

- **CPU cores.** The License Information dialog box now includes the number of CPU cores on each licensed host, to make it easier for customers to stay in compliance with Veeam license tiers.
- **Automatic update.** Disable automatic updates of the license file from Enterprise Manager to backup servers (available to authorized backup-as-a-service providers).

Enhancements specific to VMware

- **Improved processing performance.** Significantly reduced data transfer initialization time in all transport modes by disabling excessive VDDK logging.
- **Direct file restore.** Perform a direct file restore (described earlier) without a network connection between the backup server and the destination VM.
- **File management.** Improved file management (FastSCP) performance up to 25%.
- **Migration wizard.** Specify that Veeam Quick Migration be used even if VMware vMotion is available.
- **Intelligent load balancing.** To facilitate LAN-free operation, if a backup proxy server can Hot Add connect to both the source and replica VM disks, intelligent load balancing assigns it as the only backup proxy for the replication job.
- **Replica VMs.** To save disk space, replica VMs are created by default with thin-provisioned virtual disks, regardless of the source VM disk type.
- **Virtual Lab.** Added internet access from the Virtual Lab environment for VMs using port groups other than first.

Enhancements specific to Hyper-V

- **Instant VM Recovery.** Added support for Instant VM Recovery from backups created with some virtual disks excluded.

Other

- **Enhanced PowerShell support.** Added PowerShell cmdlets for replica failover, replica failback and VeeamZIP operations.



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