

# What's New in Veeam Backup & Replication 4

## New in version 4.1

### Replication to ESXi

Veeam Backup & Replication now supports replication to the paid/licensed version of VMware ESXi.

### SNMP notifications

New option for per-job and per-VM backup status notification allows easy integration of Veeam Backup activity into your legacy monitoring system.

### Regulatory compliant backups

A new standalone restore utility can be put on a tape with your backup data to allow for VM restore independent of the Veeam Backup & Replication software.

## VEEAM EXTENDS ITS TECHNOLOGY LEADERSHIP IN VMWARE BACKUP MARKET

Veeam Backup & Replication 4.0 is a major update to Veeam's industry-leading data protection and disaster recovery solution for VMware vSphere that combines backup and replication in a single product. Version 4.0 is an organic evolution of the proven Veeam FastSCP engine, providing unmatched reliability as verified by more than 60,000 VMware professionals over the last three years. Rather than spend time re-architecting the base technology, Veeam focuses on adding innovative new functionality most requested by our customers.

As a result of ongoing research and development efforts, and in response to customer feedback, version 4.0 includes a markedly expanded range of features and enhancements, most not available from any other vendor. All of the features below show why Veeam is #1 in customer satisfaction, innovation and value.

Improvements in version 4.0 have been made in the following areas:

### Enterprise management

A new Enterprise Management Server allows distributed enterprises to manage multiple Veeam Backup & Replication installations from a single web console. The ability to easily manage multiple instances of Veeam Backup & Replication allows you to deploy the backup solution and manage backups and restores according to your administrative, business, geographical and security requirements and boundaries. While providing you with a centralized backup process, Veeam Backup & Replication 4.0 makes decentralized recovery and backup verification possible, thus addressing real-world enterprise deployment scenarios. For example, Exchange recoveries can be handled by the Exchange administrators group, while domain controller recovery requires another skill set, and can best be performed by Active Directory admins.

Native support for this distributed architecture gives you the ability to easily scale your VMware backup infrastructure as your virtual environment grows by deploying additional Veeam Backup & Replication servers – while still providing centralized management and reporting capabilities to senior IT management. The new Enterprise Management Server's web interface is very easy to use and enables you to perform centralized backup activity reporting that spans your enterprise; easily control backup and replication jobs; and quickly find the location of any backup file for the VM you need to restore.

## Native vSphere and vStorage support

In another industry first, only Veeam Backup & Replication now offers not just compatibility, but full and native support for VMware vSphere, including all new vSphere and vStorage functionality:

- **Native support for thin-provisioned disks** for faster full VM backups and restores, to reduce the amount of storage required to host your production VMs.
- **Ability to leverage ESX4 changed block tracking** for lightning-fast incremental backup. For instance, if a VM only had 5 percent change since the last backup, the incremental backup time will be 20 times faster.
- **Support for the new vStorage API.** The VMware vStorage API for Data Recovery is VMware Consolidated Backup (VCB) successor and the preferred API for VMware vSphere backup. For example, the backup of vSphere Fault Tolerant VMs will only be possible using the vStorage API. While Veeam is still committed to supporting VCB as long as our customers will require, native support for the vStorage API makes Veeam Backup & Replication the most future-proof solution currently available on the market.
- **Support for virtual applications (vApp)** for more flexibility with your job setup.

## Near-real-time replication

In our continuing effort to provide the best VMware replication capabilities on the market, Veeam Backup & Replication 4.0 now leverages the new vSphere ESX(i) 4 functionality to provide much faster replication cycles. You can now schedule replication jobs to run as often as every few minutes, allowing you to achieve very low recovery point objectives in case of disaster, thus providing near-CDP (continuous data protection) protection at a fraction of the cost.

Unlike competitive solutions that require replicated VMs to run with open snapshots (which prevent Live Migration and DRS) Veeam Backup & Replication does not have this requirement and instead uses new vSphere ESX(i) 4 APIs to achieve fast replication cycles. Veeam Backup & Replication also provides the ability to fail over to both current and earlier points in time in case of software corruption – functionality not available from other vendors.

## Other Enhancements

Numerous additional enhancements requested by our customers are also included to make Veeam Backup & Replication even easier and more convenient to use:

### General

- **Hot VM copy.** Veeam Backup & Replication 4.0 now features a new job type supporting scheduled full-image copies of running VMs to allow hot mirroring of your production environment to test lab, for datacenter migrations, or for ad-hoc backups to removable storage such as a USB drive.
- **PowerShell access.** You can now control all aspects of Veeam Backup & Replication via PowerShell scripts. This allows you to automate all Veeam Backup & Replication activities, such as job creation and control, changing any settings, performing automatic VM restore or replica failover and so on.
- **Safe snapshot removal.** Veeam Backup & Replication now implements a safe snapshot removal technique to prevent production applications from timing out during helper snapshot commit on pre-ESX 3.5 Update 2 hosts. This makes Veeam Backup & Replication the only backup application suitable to perform hot backups and replicas of large VMs with high disk I/O loads for customers locked on previous ESX host versions or custom ESX builds.
- **New transactional backup storage,** providing for better reliability, performance and improved compatibility with third-party hardware storage devices.
- Option to **disable built-in deduplication** to allow for better integration with certain storage devices with hardware deduplication.

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- Automated **backup storage integrity checks** to give you the extra assurance that your backups are always restorable.
- Backup and replication jobs can now be configured to **automatically fail over to network mode** if direct storage access (SAN) mode is not available due to the storage infrastructure issues.
- **VM log files are now automatically excluded** from backup and replication to increase backup speed and decrease the size of backups.
- Support for **Microsoft Windows Server 2008 R2** and **Microsoft Windows 7** as Veeam Backup server, Veeam Backup Enterprise Manager server, and as guest OS for Veeam VSS integration.
- Support for **Microsoft SQL Server 2008** as backend database for Veeam Backup and Veeam Backup Enterprise Manager servers.
- Support for **ext4** file system and Microsoft Windows LDM (Logical Disk Manager) **dynamic disks** in multi-OS file-level restore wizard.

### Backup

- **Backup storage disk space monitoring.** The backup file location is now continuously monitored, with warnings logged whenever backup storage goes low on free disk space, providing advanced backup storage capacity planning.
- **Full backups.** For organizations that have to obey to regulations and policies requiring that a full backup is performed every time, you can now configure jobs to optionally create full backups every day or at defined intervals, instead of performing Veeam's usual forever-incremental backup with synthetic building of the full restore file. A full backup can also be initiated manually from the user interface.

### Replication

- **Replica seeding.** You can now optionally perform initial replication over removable storage, instead of having full replication traffic go over WAN.
- **Disk exclusion for replication jobs.** This functionality allows for excluding VM disks containing OS swap files from replication, which can dramatically increase replication performance while decreasing the size of the incremental data package that needs to travel over the WAN.

### User interface

- **VM exclusion.** Veeam Backup & Replication now provides the ability to exclude specific VMs or virtual infrastructure objects from your container-based backup and replication jobs for added flexibility.
- **Multiple job wizard enhancements.** Creating jobs is even easier than before with the new ability to search for objects based on a few letters from the name, seeing the size of your selected scope of objects, and the ability to estimate the required disk space for backups given your retention policy.
- Ability to **change backup and replica destinations** on existing jobs so you can move the destination without requiring a full backup from scratch.
- Ability to **disable jobs.** You can now temporarily disable a backup from running on schedule with a single click, without having to open job properties or clear the schedule.
- Ability to **customize VM attribute** used to store backup results (backup date and time, backup console name, and path to the backup file containing the specific VM) upon successful backup.
- Ability to perform Windows **file-level restore directly to running Windows guest** with built-in file-level restore functionality. Previously, files could only be restored locally to the Veeam Backup server.
- Ability to perform **file-level restore directly to Linux guests** with multi-OS file-level restore wizard. Previously, files could only be restored locally to the Veeam Backup server.
- And **many more** minor enhancements requested by our valued customers.

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