

# VMware Backup: Veeam vPower Virtualization-Powered Data Protection

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## CONTENTS

<b>VPOWER — HISTORY OF INNOVATION .....</b>	<b>3</b>
<b>SUREBACKUP: 100% GUARANTEED RECOVERY.....</b>	<b>6</b>
<b>INSTANTRESTORE™: FASTEST RECOVERY TIME .....</b>	<b>7</b>
<b>INSTANT VM RECOVERY .....</b>	<b>7</b>
<b>U-AIR (UNIVERSAL APPLICATION-ITEM RECOVERY) .....</b>	<b>7</b>
<b>INSTANT FILE-LEVEL RECOVERY .....</b>	<b>8</b>
<b>SMARTCDP™: MOST COMPLETE RECOVERY .....</b>	<b>8</b>
<b>2-IN-1: BACKUP &amp; REPLICATION .....</b>	<b>8</b>
<b>OTHER ENHANCEMENTS IN V5 .....</b>	<b>9</b>
<b>ABOUT VEEAM SOFTWARE .....</b>	<b>10</b>

Virtualization offers a unique value proposition, with the opportunity to reduce costs while also increasing service levels. Nowhere is this value proposition more apparent than with data protection. Of course, you need the right tools to turn the opportunity into reality.

Already, Veeam Software has made enhanced data protection and disaster recovery a reality for more than 12,000 customers. And with Veeam vPower™, Veeam is taking backup to a whole new level and using virtualization to do things never before possible.

Veeam has developed breakthrough technology in Veeam Backup & Replication™ v5 that lets you run a virtual machine (VM) directly from a backup file. We call it vPower, and it has fundamental, far-reaching benefits. With 5 patents pending, v5 with vPower offers these industry firsts:

- **Instant VM Recovery** — restore an entire machine from backup in a matter of minutes
- **U-AIR™ (universal application-item recovery)** — recover individual items from ANY virtualized application
- **SureBackup™ Recovery Verification** — automatically verify the recoverability of every backup

## vPOWER — HISTORY OF INNOVATION

vPower is the Veeam technology that leverages the virtual environment and Veeam innovation to make enhanced data protection a reality. vPower eliminates the fundamental shortcomings of traditional approaches to reduce the cost, ensure the reliability and increase the value of data protection and disaster recovery.

*"This is why I love Veeam. They take all the virtualization technology pieces on the table and put them together into a functioning business solution."*

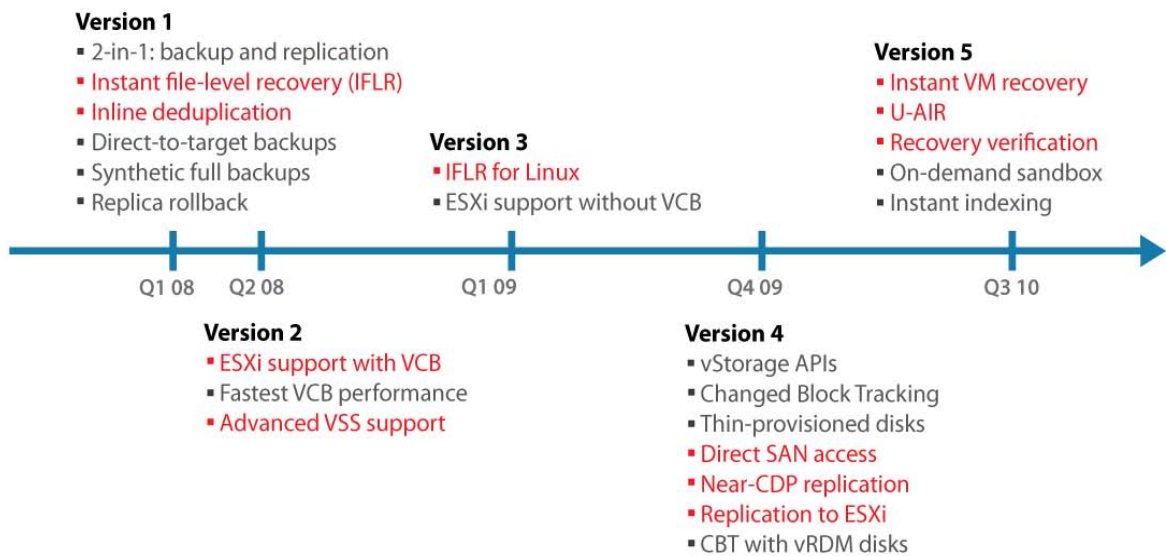
Brett Westover  
IT Administrator  
Therapeutic Research Center

Since its very first release, Veeam Backup & Replication has been the leader in data protection and disaster recovery for VMware, delivering the most innovation, value and customer satisfaction. With native support for vSphere and vStorage functionality, Veeam Backup & Replication streamlines backup and recovery for VMware and provides:

- 10+ times faster for incremental backups
- Up to 5 times faster for full backups
- 80% lower cost for near-continuous data protection (CDP) compared with traditional CDP
- Up to 30% lower storage costs



## Veeam's history of innovation



With vPower, Veeam is taking VMware backup to the whole new level and provides:

### **SureBackup: 100% Guaranteed Recovery**

- Verify the recoverability of every backup, of every VM, every time
- Leverage Veeam's FastSCP engine used by more than 120,000 professionals worldwide
- Recover critical Windows applications (Microsoft Exchange, Active Directory, SQL Server, etc.) with advanced Windows VSS support

### **InstantRestore: Fastest Recovery Time**

- Instantly recover a failed VM and restart it on any host
- Recover individual emails, records or objects from any virtualized application—without additional backups, agents or software tools
- Instantly recover individual files and folders from Windows and Linux file systems

### **SmartCDP: Most Complete Recovery**

- Combine backup and replication to achieve best RTOs and RPOs
- Replicate on-site for high availability, off-site for disaster recovery
- Get an affordable alternative to traditional CDP

## vPower™ : Virtualization-Powered Data Protection™



SureBackup™



InstantRestore™



SmartCDP™

### Reliability

100% Guaranteed  
Recovery

### RTO

Fastest  
Recovery Time

### RPO

Most Complete  
Recovery

**5** Patents  
Pending!

**NEW** Veeam Backup & Replication™ **v5**

vPower is enabled by 5 patent-pending technologies, including:

- **Instant VM Recovery**—restore an entire virtual machine IN MINUTES by running it directly from a backup file
- **U-AIR™ (Universal Application-Item Recovery)**—recover individual objects from ANY application, on ANY OS
- **SureBackup™ Recovery Verification—100% Guaranteed Recovery**—automatically verify the recoverability of EVERY backup, of EVERY virtual machine, EVERY time

To learn more, visit [www.veeam.com/vPower](http://www.veeam.com/vPower)

## SUREBACKUP: 100% GUARANTEED RECOVERY

Backups are worthless if you cannot recover from them. vPower enables you to verify the recoverability of your backups—not just a few selected backups, but EVERY backup of EVERY virtual machine, EVERY time.

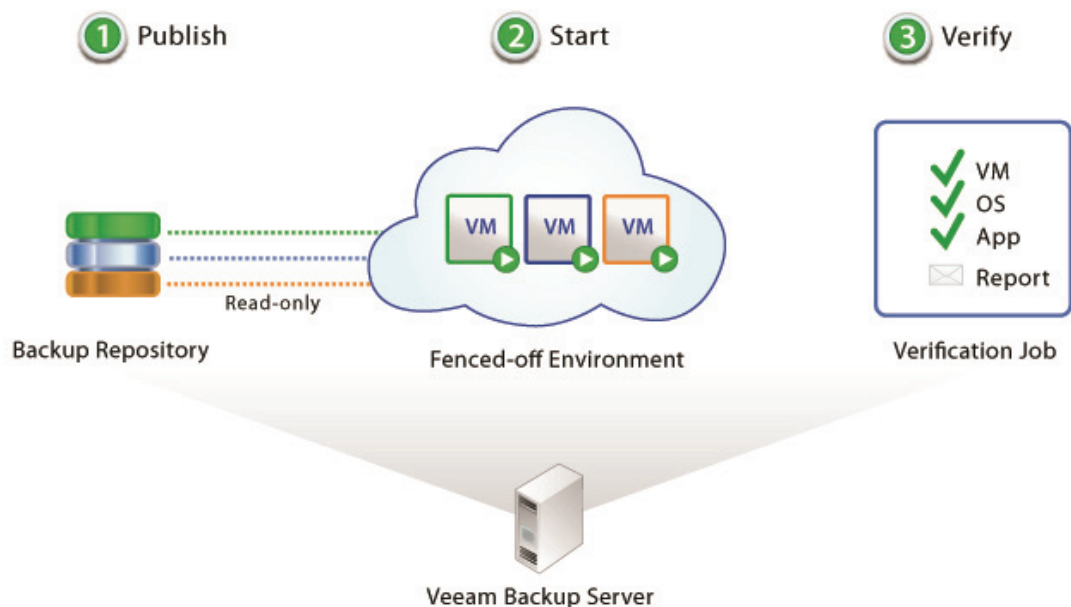
*“Data protection and recovery are in the midst of major change. We now expect archived data to be accessible and just as dynamic as our virtual infrastructures. Tomorrow’s leaders in data protection and recovery are those who intelligently leverage virtual hard disk archives to satisfy all recovery tasks from a single protection operation. This includes instant image recovery, file and object recovery, user self-service recovery and rich verification capabilities.”*

Chris Wolf  
Research Vice President  
Gartner Group



vPower automates the recovery verification process, using available resources in your existing production or test environment. During recovery verification, it creates a VM in an isolated environment and runs it directly from the backup file. It starts the VM, boots the OS and confirms that everything is running normally.

By verifying every backup, vPower sets a new standard for data protection—one that can’t be matched by any other backup solution, physical or virtual. You no longer have to settle for backups that “might work” or “should work”—instead, you can rest easy knowing that your backups actually do work.



vPower publishes the contents of the backup file as a datastore to which an ESX(i) host can connect. You can run a VM directly from the compressed and deduplicated backup, eliminating the time and resources required to extract the backup. You can run the VM in your regular production environment (Instant VM Recovery) or in an isolated test environment (SureBackup Recovery Verification and On-Demand Sandbox). Veeam automatically creates and manages the isolated environment—or virtual lab—for you.

## INSTANTRESTORE™: FASTEST RECOVERY TIME

With vPower, you can run a VM directly from a compressed and deduplicated backup file. This ground-breaking technology eliminates the need to extract the backup and copy it to production storage—you simply start the VM from the backup. So if a VM goes down, you can restart it on any host in a matter of minutes.

### Instant VM Recovery

How many times have you wasted precious time trying to troubleshoot an issue while users twiddled their thumbs and went out for coffee... and management grew increasingly impatient? With vPower, users no longer have to wait while you troubleshoot the issue or extract the backup. Instead, you can recover an entire VM in just a few minutes.

It's like having a "temporary spare" for your VMs.

To restore full service, use Storage vMotion to migrate the VM to production storage and thus provide full recovery with zero downtime. Or, if you don't have Storage vMotion, simply replicate the VM with 2-in-1 backup and replication from Veeam.

### U-AIR (Universal Application-Item Recovery)

vPower also enables quick recovery of individual objects from any virtualized application. It's a brand-new solution to the age-old problem of what to do when users accidentally delete important emails or scripts incorrectly update records.

U-AIR addresses the limitations of existing object-level recovery methods. U-AIR is:

- **Inexpensive:** doesn't require additional agents, backups or software tools
- **Universal:** works with any virtualized application and the application's native utilities and permissions
- **Durable:** not tied to application internals so is easy to maintain and works seamlessly with new application patches and releases

With U-AIR, you simply start up the VM in an isolated environment from a backup taken before the unwanted changes were made, and extract the items you need. Veeam Backup & Replication automatically creates and manages the isolated environment for you to

eliminate the risk of any interference with your production environment (for example, from duplicate domain controllers). It even includes wizards to streamline item-level recovery for common applications (such as Microsoft Active Directory, Exchange and SQL Server) and a proxy to copy items to production.

*"Veeam, an industry leader in backup technology,  
has come to the rescue."*

Arnim van Lieshout  
VCP and Virtualization Architect

## Instant File-Level Recovery

With vPower, you can quickly recover an entire VM or an individual file from the same image-level backup. Veeam instant file-level recovery enables you to restore individual files from your backups and replicas in seconds to the latest state, and is supported both for Windows and Linux file systems.

## SMARTCDP™: MOST COMPLETE RECOVERY

vPower leverages the latest technological advancements in VMware vSphere 4 and vStorage— including Changed Block Tracking and thin-provisioned disks — to deliver unprecedented replication speed. You can capture changes and update VM images as often as every few minutes. If a VM goes down, you can immediately fail over to a ready-to-

start replica. This eliminates the need for an expensive specialized product and provides an affordable alternative to traditional CDP. So even if you can't afford expensive real-time replication or hardware-based snapshots, you can still maintain high availability and deliver near-continuous data protection.

*"Veeam shows innovation in the area of virtualization and data protection and recovery."*

Laura DuBois  
Program Director  
IDC

## 2-IN-1: BACKUP & REPLICATION

Veeam provides the most comprehensive protection for your virtual environment, offering backup and replication through one solution, at one price. This gives you flexibility to meet different recovery objectives (RTOs and RPOs) for different VMs. You can replicate a VM on-site for high availability, off-site for disaster recovery, or back up data using less expensive hardware and techniques. You save on software licenses -and realize additional benefits from virtualization. To ease data transfer to and from off-site locations, Veeam uses WAN bandwidth efficiently and lets you replicate over slow WAN links.

## OTHER ENHANCEMENTS IN V5

In addition to Instant VM Recovery, U-AIR and SureBackup Recovery Verification, Veeam Backup & Replication v5 includes other new features and enhancements to provide highest levels of automation, flexibility and assurance.

*"Virtualization provides a gateway for innovative solutions to include validation of entire application stacks as part of the backup process. IT professionals no longer have to lose sleep wondering if critical data can be recovered, when they can leverage innovative solutions that validate the application integrity of each backup job."*

Chris Wolf  
Research Vice President  
Gartner Group

**Gartner**

- **Instant indexing for Windows.** Automatically create a catalog of all guest files in Windows VM image-based backups, allowing you to quickly browse or search for guest files in both current and archived backups.
- **On-demand sandbox.** Quickly start one or more VMs in an isolated environment to test software and patches, troubleshoot problems, etc.
- **Enhanced deduplication and faster off-site replication.** Reduce disk storage requirements and optimize WAN performance with additional engine improvements and optimizations in v5.

## ABOUT VEEAM SOFTWARE

Veeam Software, a premier-level VMware Technology Alliance Partner and member of the VMware Ready Management program, provides innovative software for managing VMware vSphere 4 and VMware Infrastructure 3. Veeam offers an award-winning suite of tools to assist the VMware administrator, including #1 for **VMware backup**: Veeam Backup & Replication™; Veeam Reporter™, for **enterprise reporting**, change management and capacity planning for VMware; Veeam Monitor™, for **VMware performance monitoring and alerting** across multiple vCenters; and Veeam Business View™, a free add-on that works with other Veeam products to provide **business categorization for the VMware environment**. With its acquisition of nworks, Veeam's products include the **nworks Management Pack** and the **nworks Smart Plug-in**, which incorporate VMware data into enterprise management consoles from Microsoft and HP. Learn more about Veeam Software by visiting [www.veeam.com](http://www.veeam.com).