

vRanger® Pro

Simple, fast, and scalable image-based backup, replication, and recovery

Protecting virtual environments with traditional backup and replication software is no small feat. These agent-dependent solutions are slow, expensive, and difficult to manage—sapping virtual host CPU and I/O resources and often wasting large amounts of backup storage.

vRanger® Pro offers a better alternative. This simple, fast, and scalable data-protection solution deploys seamlessly into virtual environments. It provides a single console for managing backup, replication, and recovery. Built on our data protection platform, it's the only available architecture that's optimized for image handling.

An optional NetVault® SmartDisk—vRanger® Edition add on delivers disk-to-disk backup and enterprise-class deduplication to reduce backup storage costs by up to 90 percent. It packs more data into the same storage area than competing image-based backup solutions.

vRanger Pro scales with your virtual environment by maximizing resources through distributed processing, while simplifying management with central command and control.

Features and benefits

vRanger Pro also backs up and recovers physical environments with blazing speed, a minimum of backup storage, and can restore Windows servers

Benefits:

- Exploits vSphere 5 performance and scalability enhancements
- Provides high-speed, resource-efficient backup, replication and recovery of virtual machine images
- Delivers up to 90% backup storage savings when paired with NetVault SmartDisk—vRanger Edition
- Supports backup and recovery of Windows physical servers, files and folders
- Supports the EMC Data Domain systems via DD Boost for optimized deduplication
- DD Boost managed file replication simplifies disaster recovery planning and implementation
- Operates as a low-resource consumption Virtual Appliance (VA) for low-impact scalability
- Improves VM backup and recovery performance with HotAdd support
- Optimizes use of critical resources in virtual environments, including hypervisor hosts, networks and storage
- Protects real-world VM deployments including those with four or more hosts and 30 or more
- Ensures archive integrity
- Simplifies portability with image backup files
- Offers agent-less, maintenance-free deployment
- Delivers proven reliability
- Provides unmatched performance and scalability
- Comes with world-class service and support

“vRanger saved us 20-25 hours of stressful, around-the-clock work, and it got those critical servers back up for our customers before lunch instead of the next day. I restored two domain controllers in less than four hours; then in another four hours, I also restored five servers, including an Exchange Server, a file/print server, and a couple other critical production servers.”

*Randy Dover,
Vice President and Information Technology Officer,
Cornerstone Community Bank*



Additional information

Operating requirements

Operating system service pack level bit level:

Microsoft Windows 2003 Server SP2 (x86 or x64); Microsoft Windows 2003 R2 SP2 (x86 or x64); Windows Server 2008 SP2 (x86 or x64); Windows 2008 R2 SP1 (x64), Windows Server 2012 (x64)

Database repository:

SQL Express 2005 database (default); SQL Express 2005 [Embedded option] SP 2; SQL Express 2005 SP 4; SQL Express 2008 SP 3; SQL Express 2008 R2 SP1; SQL Express 2012 N/A

Hardware requirements:

(Physical server) CPU: 2 dual-core; RAM: 2 GB

Add-on and upgrade options

NetVault SmartDisk—vRanger Edition add on—Provides disk-to-disk backup and deduplication to reduce backup storage cost by up to 90 percent

Quest® Recovery Manager for Exchange—Includes object-level recovery (OLR) for Microsoft Exchange

vEssentials Pro—Offers a single package of multiple Dell products at a reduced price, tailored for mid-tier or enterprise environments according to your requirement

and even individual files and folders. With vRanger, you get comprehensive protection for both your virtual and physical environments that you can manage from one simple interface.

- **vSphere 5 certified**—Exploits vSphere 5 streaming 59 VMDK, 1 TB per VM memory limits, and other performance and scalability improvements.
- **VMware ESX and ESXi support**—Provides a wide range of backup and recovery and disaster recovery (DR) capabilities for VMware virtual infrastructures.
- **Virtual Appliance (VA) architecture**—Delivers low-impact scalability through distributed processing via the optional VA architecture; supports clusters and is deployed via wizard.
- **Disk-to-disk backup and deduplication**—Offers a NetVault SmartDisk - vRanger Edition add on for enterprise-class deduplication that reduces backup storage footprints by up to 90 percent.
- **EMC Data Domain Boost support**—Supports distributed deduplication with EMC Data Domain appliances via the DD Boost API.
- **VMware HotAdd support**—Performs LAN-free backups with vRanger installed inside a VM. In addition, HotAdd accelerates network backups of ESXi.
- **Patented Active Block Mapping (ABM)**—Eliminates Windows pagefiles and inactive and white space blocks from protected Windows guest images to speed backup, replication, and recovery jobs as well as reduce network and storage requirements.
- **Change block tracking (CBT)**—Eliminates the time required to scan for changed blocks in guest images on vSphere hypervisor systems to speed backup and replication jobs.
- **Instant file-level recovery (FLR) for Windows and Linux**—Enables you to quickly restore a single file from a backup image in the repository through a one-step process.
- **Native, full catalog capability, patent-pending**—Provides native, full catalog of every image in the backup repository, enabling immediate identification of available recovery positions. Wildcard scanning feature quickly locates backup repository files to be restored.
- **One-step catalog recovery**—Provides advanced search (including wildcards) and right-click recovery selection directly from the management console to speed restore of VMs, savepoints, hosts, physical servers, files and folders.
- **Advanced encryption standard (AES)-256**—Secures protected images block-by-block on the VMware host as they're read so they're also secure over the network and in the backup repository.
- **Full, incremental, and differential backup**—Enables a complete backup cycle for protected images that is optimized for speed and resource efficiency.
- **Full, incremental, and hybrid replication**—Provides the full range of options required to replicate images effectively and efficiently over LANs and WANs.
- **Replication**—Offers on- and off-site options for flexible, reliable disaster recovery.
- **Windows server support**—Performs scalable backup and recovery of Windows physical servers, files and folders.
- **Synthetic recovery**—Delivers single-pass restore, reading each required block only one time from multiple full, incremental and differential backup images in the repository for the fastest, most efficient results.
- **vSphere 5 vMotion support**—Ensures vRanger automatically protects VMs as they move from one host to another, even when backup jobs are running. It also ensures vRanger follows VM storage disks when they are relocated to different data stores; locks VM storage disks when vRanger accesses the disks during a job.
- **Agent-less job execution, patent-pending**—Uses binary injection at run time on VMware ESX hosts; eliminates burdens of license tracking and maintenance upgrades.
- **Advanced savepoint management**—Allows you to manage and use multiple point-in-time copies of backup and replica images for precise image, file, and object restores.
- **Dynamic resource management**—Optimizes real-time use of critical resources; ensures efficiency and that jobs complete faster without exceeding resource capacity.
- **Job multi-streaming**—Let's you run multiple backup, restore and replication jobs at once



Additional information (cont.)

Storage:

4 GB; HBA: 2 for LAN-free;
(virtual server) CPU: 4 vCPU;
RAM: 4 GB; Storage: 4 GB

Licensing:

Each physical CPU socket on
ESX host source requires 1
CPU license (quad CPU ESX
host requires 4 CPU licenses),
unlimited number of cores

Support

VMware ESX and ESX(i)
systems for backup, replication
and recovery

Any guest VM supported by
VMware

Storage support using CIFS,
SFTP, NFS and FTP

LAN-free SAN-attached storage
support, including backup and
recovery

FLR on Windows and Linux
guests

API support including vCenter
Server, vStorage, HotAdd,
Microsoft Windows, EMC
Data Domain Boost, and Dell
Software vAPI

Protected by U.S. Patents 8,046,550; 8,060,476; 8,135,930
and 8,166,265. Additional patents pending.



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protection jobs simultaneously to back up, replicate, and recover images for dramatic improvement in performance times.

- **Direct-to-target (D2T) architecture** — Distributes job execution and movement of data with optimal efficiency to improve data protection and ensure seamless scalability.
- **Inline data validation**—Tests integrity of captured data on the source block-by-block as it's read; ensures image recovery from the backup repository and replica-image usability.
- **Remote management**—Lets you manage data protection jobs through a central

console over LAN and WAN connections for control of all systems and sites in an environment.

- **vAPI and PowerShell access**—Automate scripts for protection jobs, reducing administrative burdens and human error.

About Dell

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