

# vRanger® Standard Edition

Image-based VMware backup and recovery that's simple, fast and affordable

As virtual systems become more complex and time-consuming to manage, you don't need additional hassles with backup and recovery. Thankfully, there's vRanger®.

vRanger Standard Edition (SE) offers innovative, easy-to-manage technology to efficiently protect your VMware systems while minimizing network impact and storage requirements. It's built on Dell's unique data protection platform – an unparalleled architecture optimized for image-based data handling in virtual environments.

Its patent-pending capabilities make it faster than any alternative and provide the most reliable and secure backup repository on the market.

With vRanger, protection is simple:

- Back up and restore VMs at the same time – with no limits

- Use distributed processing for faster backups and direct recovery with no impact on host operations; there's no need to send all the VM data through a single, central server
- Recover multiple VMs at the same time, without running the recovery wizard for each
- Browse vCenter to see which VMs have been protected, when backups completed, and which VMs need protection immediately
- Configure new backup jobs that are automatically refreshed to stay current with new VMs as they are added in the environment
- Protect all types of guest data with a single VM backup
- Restore any type of data from a single backup image – including individual files, databases, and full guest systems.

Features and Benefits:

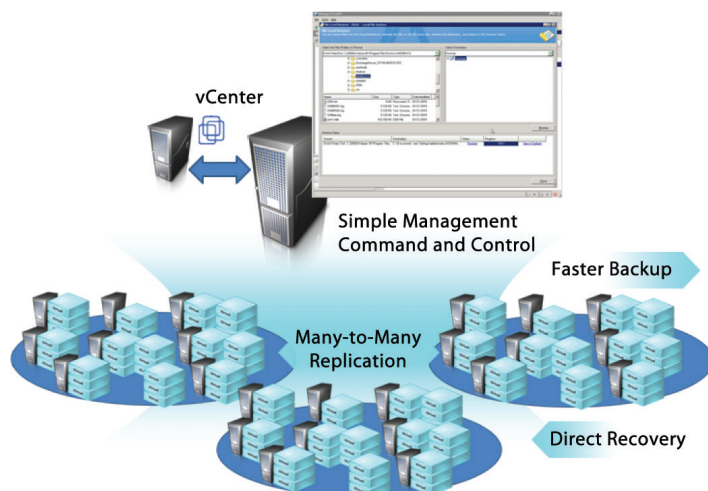
- **VMware ESX and ESXi support** – Provides a wide range of backup and

Benefits

- Fast backup and recovery of virtual machine (VM) images
- HotAdd support improves VM backup and recovery performance
- Smaller backup image frees up network and storage capacity
- Ensured archive integrity
- Efficient image portability
- Agent-less, maintenance-free deployment
- Proven reliability
- Unmatched performance
- Market-leading, image-based data protection
- World-class service and support
- Track record of innovation

Add-on and upgrade options:

- **vRanger Pro®** – Provides scalable virtual appliance architecture, Linux FLR, full native catalog, one-click catalog recovery, LAN-free backup and restore, EMC Data Domain Boost support, and seamless replication with Quest® vReplicator.
- **Total Virtual Data Protection** – Includes vRanger Pro, Quest® Recovery Manager for Exchange, Quest® Recovery Manager for Active Directory, and Quest® Recovery Manager for SQL Server to accelerate and simplify backup and recovery of virtualized Microsoft applications and objects. Optional DB Edition includes LiteSpeed® for SQL Server.
- **vEssentials Pro** – Offers a single package at a reduced price, with all these SMB best-fit solutions: vRanger Pro, vFoglight®, Quest vReplicator, Quest® vOptimizer Pro.
- **NetVault® SmartDisk- vRanger® Edition** – Delivers enterprise-class deduplication (vRanger Pro required)



vRanger SE is deployed seamlessly into VMware environments and protects VMs with no impact on VMware host operations.

## System 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)

### 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; 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

### Supports

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

Any guest VM supported by VMware

Storage support using CIFS, SFTP, NFS and FTP

FLR on Windows guests

API support including vCenter Server, vStorage, HotAdd, vMotion, Microsoft Windows, and Dell Software vAPI

recovery capabilities for VMware virtual infrastructures.

- **VMware HotAdd support** — Performs LAN-free backups with vRanger installed inside a VM. In addition, HotAdd accelerates network backups of ESXi.
- **Active Block Mapping (ABM), patented** — Eliminates inactive and white space blocks from protected Windows guest images to speed backup, replication and recovery jobs — and to 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** — Enables you to quickly restore a single file from a backup image in the repository using a one-step process.
- **Custom backup groups** — Provides optimal flexibility in defining backup jobs to protect new VMs automatically as they get created, reducing configuration time and administrative burden.
- **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.
- **Synthetic recovery** — Provides single-pass restore, reading each required block only once from multiple full, incremental and differential backup images in the repository for fast, efficient results.
- **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 in a virtual infrastructure to ensure the highest efficiency and complete backup and restore jobs faster.
- **Job multi-streaming** — Lets you run multiple 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 data movement to improve protection performance and ensure seamless scalability.
- **Inline data validation** — Tests the 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 across all systems and sites in an environment.
- **vAPI and PowerShell access** — Enables scripting automation of protection jobs to reduce administrative burden and human error.
- **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.

### About Dell

Dell Inc. (NASDAQ: DELL) listens to customers and delivers worldwide innovative technology, business solutions and services they trust and value. For more information, visit [www.dell.com](http://www.dell.com).

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

### Dell Software

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