

## vRanger

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.

Quest® vRanger offers a better alternative. This simple, fast, and scalable data protection solution deploys seamlessly into virtual environments, and provides a single console for managing backup, replication and recovery.

vRanger is designed for use on both VMware® and Microsoft® Hyper-V® virtualization platforms and also supports physical backup on Microsoft Windows.

vRanger also supports enterprise deduplication and delivers efficient backup with Quest QoreStor™, EMC Data Domain and Quest NetVault SmartDisk to reduce backup storage costs and improve backup times.

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

### FEATURES

vRanger backs up and recovers physical environments with blazing speed and a minimum of backup storage, and can restore Windows servers 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 certified** — Exploits the latest in vSphere 7.0 performance and scalability improvements.
- **VMware vSphere / ESXi / vCloud / Virtual SAN, Virtual Volumes, Storage Profiles, and DRS cluster support** — Provides a wide range of backup and recovery and disaster recovery (DR) capabilities for VMware virtual infrastructures.

### BENEFITS:

- Supports the latest vSphere 7.0, vCloud, Virtual SAN, Virtual Volumes, Storage Profiles and DRS clusters
- Supports Microsoft Hyper-V 2016 and 2019
- Provides high-speed, resource-efficient backup, replication and recovery of virtual machine images
- Delivers maximum storage savings and best performance when paired with Quest QoreStor™ software-defined secondary storage for optimized deduplication and replication, and EMC Data Domain dedupe appliances
- Supports backup and recovery of physical Windows servers
- Supports EMC Data Domain Boost for optimized deduplication and replication
- Leverages virtual appliances (VAs) for scalability even in the largest environments
- Improves VM backup and recovery performance with HotAdd support
- Optimizes use of critical resources in virtual environments, including hypervisor hosts, networks and storage
- Includes a catalog for fast file searching and file-level restore
- Provides protection for the largest VM deployments
- Offers agent-less, maintenance-free deployment
- Delivers proven reliability
- Provides unmatched performance and scalability
- Comes with world-class, 24x7 business critical 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:

Windows 2008 R2 SP1 (x64); Windows Server 2012 (x64), Windows Server 2012 R2 (x64); Windows Server 2016 (x64); Windows Server 2019 (x64)

### DATABASE REPOSITORY

SQL Server 2008, 2008 R2 (Express embedded option), 2012, 2014, 2016

### HARDWARE REQUIREMENTS

4 CPU cores (recommended); 4GB RAM

### 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

**Recovery Manager for Exchange** — Includes message-level data recovery for Microsoft Exchange

### LICENSING

Each physical CPU socket on VMware vSphere / ESXi and Hyper-V hosts requires one CPU license

- **Microsoft Hyper-V 2016 and 2019 Support** — Protect the latest Hyper-V releases.
- **Virtual appliance (VA) architecture** — Delivers 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.
- **Quest QoreStor RDA support** — Supports client-side deduplication with Quest QoreStor via the RDA API.
- **EMC Data Domain Boost support** — Supports client-side deduplication with EMC Data Domain via the 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, hibernation files, and inactive and white space blocks from protected Windows guest images to speed backup, replication and recovery.
- **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. The 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 and hosts with native catalog.
- **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 and incremental replication** — Provides the full range of options required to efficiently replicate VMware VMs over LANs and WANs.
- **Replication** — Offers on-site 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 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, and locks VM storage disks when vRanger accesses the disks during a job.
- **Agentless job execution, patent-pending** — Uses binary injection at run time on VMware ESX hosts; eliminates the burdens of license tracking and maintenance upgrades.
- **Advanced savepoint management** — Enables 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 that jobs complete faster without exceeding resource capacity.
- **Job multi-streaming** — Allows you to run multiple backup, restore and replication jobs at once for dramatic improvements 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.
- **FIPS-certified** — Addresses government data security requirements with vRanger Crypto Module, certified for FIPS 140-2 Level.

## ADDITIONAL INFORMATION (CONT.)

### SUPPORT

VMware vSphere / ESXi systems for backup, recovery and replication

Microsoft Hyper-V systems for backup and recovery

Any guest VM supported by VMware and Hyper-V

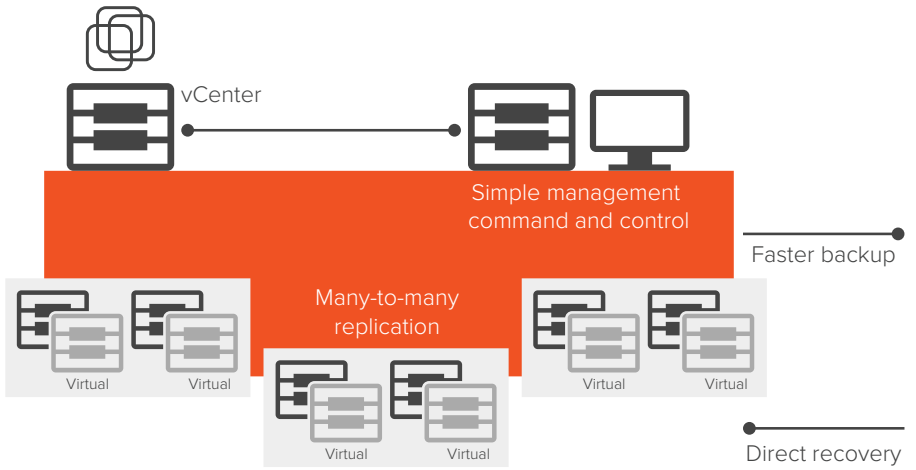
Storage support using CIFS, NFS, SFTP and FTP

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

FLR on Windows and Linux guests

API support, including vCenter Server, vStorage, vCloud, HotAdd, Microsoft Hyper-V, Microsoft Windows, EMC Data Domain Boost, Quest QoreStor and PowerShell

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



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

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

### ABOUT QUEST

Quest provides software solutions for the rapidly-changing world of enterprise IT. We help simplify the challenges caused by data explosion, cloud expansion, hybrid datacenters, security threats and regulatory requirements. Our portfolio includes solutions for database management, data protection, unified endpoint management, identity and access management and Microsoft platform management.