Accelerate Your Success Through Virtualization

September 12, 2013

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What's inside

- Virtualization is understandably popular, but it comes with challenges.

- Best practices have been developed for moving to a virtualized environment, and Symantec has solutions to help companies along the way.

- Choose the virtualization approach that is properly sized for your business.

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Overview

Because of its overwhelming financial, performance, and business-continuity benefits, virtualization has become a mainstream infrastructure approach. Unless virtualization is implemented in a unified and transparent way, companies run the risk of creating data silos that increase costs and minimize returns.

Symantec's Backup Exec™ 2012 offers a unique solution to IT environments looking to take full advantage of virtualization.

Context

Symantec product expert Michael Krutikov describes the opportunities and risks of virtualization, and outlines best practices and recommended solutions.

Key Takeaways

Virtualization is understandably popular, but it comes with challenges.

IT departments today must do more with fewer resources—not just less money, but also power and space constraints—while simultaneously boosting staff productivity. To thrive in this environment, more than 75% of organizations are using some degree of virtualization, from test and development, to production environments. While virtualization enables firms to stretch their CAPEX budgets, flexibly deploy shared computing power, and improve Disaster Recovery; having deployed virtualized servers doesn't eliminate or diminish the need for them to be completely protected.

This shift to greater use of virtualization comes with potential risks, as firms need better visibility into and control of the technology. Although IT managers cite improved data backup and recovery as a top 2013 priority, 37% of companies don't know when new virtual machines are created or cloned, leaving many virtual machines underprotected or completely unprotected.[1]

Three businesses in four don't even have a formal disaster-recovery (DR) plan in place.[2] A major power outage, fire, or flood can destroy an unprepared company. As Louis Pasteur famously stated, "Fortune favors the prepared mind."

Without a careful focus on business continuity, even everyday issues as common as recovering a lost file on a laptop can be problematic in a poorly managed virtualization environment.
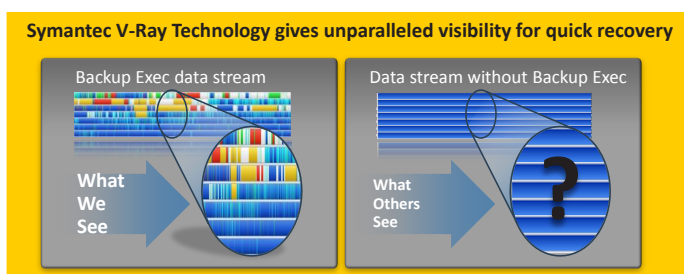
Virtualization Advantage

Best practices have been developed for moving to a virtualized environment, and Symantec has solutions to help companies along the way. The path from a physical IT environment to a virtualized one can be a challenge, even for the smallest of IT organizations. Best practices on the path from physical to virtual (P2V) involve key considerations:

1. **Migration.** Symantec offers a Migration Accelerator that converts systems or their backups into standby virtual machines. This enables a new user to gain confidence through testing the virtual machines they intend to use in place of the physical ones. Upon testing, they can modify the infrastructure as needed to optimize performance and stability, then test again from the most recent backup. Once ready, they have the confidence in 'flipping the switch' to run as virtual machines. Another valuable use for improved business continuity is to keep these "warm standby" virtual machines as nightly copies for your physical servers; ready to go in case of a hardware failure.

2. **Consolidation.** Although some niche virtualization products may have a few appealing features, they typically fail the simplification test because they require setting up and maintaining a second platform with dedicated proxy servers, storage and networking resources. Today's businesses need a single point of management and a single management console, like Symantec's Backup Exec™ 2012. This solution provides "single-pane" visibility and administrative control over a mixed virtual infrastructure, including VMware and Windows Hyper-V platforms. This consolidation delivers simplicity and savings.

Physical   **Symantec Backup Exec™ 2012**   Virtual
Virtual Agent or V-Ray Edition

3. **Deduplication.** Every completed backup potentially generates duplicate files that expand the backup window and waste storage space. Backup Exec's optimized, global deduplication across both physical and virtual data, whether it is local or remote, reduces the backup window and overall storage requirements dramatically.

4. **V-Ray Technology.** Symantec's V-Ray technology, embedded in Backup Exec, enables users to locate a "needle in a haystack of needles." When a single file is lost, for example, there is no need to pre-stage or recover an entire backup to get instant access to restore the exact file you need. This is because Backup Exec's data stream offers visibility into both virtual machines and their applications; such as Microsoft Active Directory, Exchange, SQL, and SharePoint.

Symantec V-Ray Technology gives unparalleled visibility for quick recovery

Backup Exec data stream   Data stream without Backup Exec

What We See   What Others See

We dramatically reduce storage requirements, and that saves you both time and money.
Michael Krutikov

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5. **Application-aware high availability.** Symantec Application High Availability (HA) functionality delivers an additional layer of protection again a virtual machine (VM) failing since it monitors application performance—not just to determine if the VM is running, but to confirm that it is running properly. This protects against software hangs, applications locking up, or other hardware, network, and storage connectivity failures by restarting the VM, failing over, or even initiating a complete restore if all else fails. For mission-critical applications, this keeps the business up and running on a continual basis.

6. **Simplified disaster recovery.** In a purely physical, non-virtualized environment, recovering from a hardware failure can take days or even longer when all necessary replacement equipment isn't already on site. A process that used to involve installing and configuring the new hardware, the operating system, and the backup agent before the restore can start.

   With Backup Exec, if restoring a physical server to another physical server, the embedded Symantec Recovery Disk technology delivers bare-metal-recovery. While this eliminates time and complexity from the re-install, dedicated hardware is still required for the recovery to take place.

   However, by leveraging virtualization and the Migration Accelerator, you just power on the VM, and recover in minutes instead of hours or days.

In addition, deeply embedded security is essential today. Symantec is the world's largest security provider. Extending that expertise to the data in your environment, Backup Exec securely encrypts backup data, both in transit and at rest.

Choose the virtualization approach that is properly sized for your business.

A company's volume and location of data coupled with the complexity and variation of the platforms running will most often determine what solution is best.

- **From a la carte to capacity: Symantec Backup Exec 2012 software.** Backup Exec software is the technology engine for all of the license options. Choose a la carte for customization and flexibility to select licensing for exactly what you need to protect in your environment. Choose capacity licensing for simple licensing for larger and more complex environments. Both options allow for adding functionality as your organizational needs grow.

- **Virtual-centric: Symantec Backup Exec V-Ray Edition.** V-Ray Edition is licensed per VM host socket. A complete bundle for virtual users, this provides total protection for VMware and Hyper-V systems, their applications, their data, and deduplicates it all. With Backup Exec's Migration Accelerator giving you a trusted and faster path to virtualization, getting started just got easier.

- **Simplified: Symantec Backup Exec Appliance.** Looking to easily upgrade or expand your backup performance? This all-in-one solution with software, hardware, and support in a single box may be the perfect fit. It provides a

pre-built, pre-tested, complete virtual and physical protection solution for medium and large enterprises.

Other Important Points

- **Recognition.** Backup Exec was named overall "Champion" and the "Best Overall Value" in Info-Tech's 2013 virtualization vendor landscape.

- **Special Offer.** Symantec is offering both new and existing Backup Exec customers exceptional discounts (up to 65%) through January 31, 2014. Learn more at www.BackupExec.com/vOne.

- **Testimonials.** Both customers and analysts have high praise for Symantec Backup Exec.

  "We have trusted Backup Exec to backup our data for several years…..I'm confident, based on my testing, that Backup Exec gives me the ability to recover both physical and virtual systems in case of a catastrophe."
  — **Jason Drake,** Director of Infrastructure and Security, Premiere Global Sports

  "…Symantec's support for a broad range of applications and platforms (including multiple hypervisors), virtual and physical resources, and tape devices are key differentiators versus VM-only vendors."
  — **Dave Simpson** and **Simon Robinson**, The 451 Group

- **Datasheet.** Download the Symantec Backup Exec™ 2012 datasheet.

Biography

Michael Krutikov
Sr. Product Marketing Manager, Symantec

Michael Krutikov is a Product Marketing Manager, supporting Backup Exec since joining Symantec in 2007. With a 14-year career in IT, he now works on marketing partnerships and programs built from thousands of meetings with partners and customers in a constant learning mission to deliver Symantec solutions that can better address their needs.

Sources

[1] VMWorld 2012 attendee survey

[2] Symantec 2012 SMB Disaster Preparedness Survey