Accelerate Virtualization of Your Business-Critical Applications Confidently with Symantec
Infrastructure, which connects users to data, is transforming as the provisioning of IT resources become easier, faster, and more flexible. Virtualization is the enabling technology behind this transformation. Today, businesses have commonly implemented virtualization in predominantly noncritical environments due to perceived obstacles that prevent further virtualization in the data center. These obstacles include reduced availability and performance of critical systems and applications, complex configuration of storage allocations, reduced I/O path resiliency, and increased risk due to unknown security and compliance implications. The value of data center consolidation is compromised when applications are considered too large, too complex, or too high risk to virtualize.

Starting with the traditional, slow-moving, well-defined physical infrastructures that have been purpose-built into static silos, virtualization has transformed these familiar architectures into consolidated dynamic workloads that are now more quickly provisioned and resourced to meet the increasing pace of business demands.

As this dynamic new environment grows, the lines between physical and virtual become blurred. The segmentation of trust zones becomes less clear. The traditional silos of resources begin to collapse together. The tiers of critical applications span both physical and virtual components.

And in the more mature organizations that have been on this path, the silos that used to define things like storage allocations, application resources, security trust zones, and other models of a physical environment become shared pools of resources that can expand and contract as services in direct alignment to the business requirements they serve.

As businesses leverage virtualization to transform IT and enable agile cloud-based IT service delivery models, Symantec can help accelerate the path to business-critical virtualization. Symantec’s essential portfolio, enabled with V-Ray technologies, can deliver the visibility you need into both your physical and virtual environments to control cost and ensure high levels of performance, availability, and effectiveness in business-critical operations. Regardless of where you are in your data center transformation, automating processes in key areas that impact service levels such as storage management, high availability, disaster recovery, data protection, and security and compliance are essential steps in delivering on the strategic promise of virtualization and cloud infrastructure.

VISIBILITY AND CONTROL OF VIRTUAL APPLICATIONS
Current virtual machine recovery solutions have no visibility into the application level despite that quite often it is the application failure that results in downtime. Tier 1 applications can also become more complex as multiple tiers become a hybrid mix of virtual and physical resources. And, OS clustering solutions can limit use of advanced platform features uniquely available in a virtual environment. Organizations want to meet stringent service levels with the capability to automatically orchestrate the recovery of their entire business service, including application and infrastructure layers, across virtual and physical platforms.

PRODUCT SUMMARY:
Symantec™ ApplicationHA
ApplicationHA provides high availability for business-critical applications through unique application visibility and control. ApplicationHA, integrated with VMware® HA, vMotion™, and Site Recovery Manager can be managed through VMware vCenter™ to monitor hundreds of applications’ health. In the event of a failure, it coordinates with VMware HA to restart the virtual machine.

Highlights:
• Simplify administration with full integration in VMware vCenter.
• Minimize risk of application downtime with virtual machine application monitoring and automated recovery.
• Centralize management of multi-tier applications across mixed physical and virtual environments with visibility through a single pane of glass.
IMPROVED STORAGE I/O PERFORMANCE AND AVAILABILITY

Complexity of balancing capacity, bandwidth, or processing performance impacts application availability. Storage configuration and allocation is difficult to manage across the growth of dynamic virtual machines. Organizations want to reduce storage costs and operational management expenditures with multiple options for configuration, balancing capacity, bandwidth, and restoring connectivity.

PRODUCT SUMMARY:
Veritas™ Dynamic MultiPathing for VMware®
Veritas Dynamic Multi-Pathing for VMware is integrated into VMware vCenter. Through intelligent algorithms and load balancing, it improves storage I/O performance and availability for VMware ESX attached storage. In addition, it reroutes I/Os to available data paths in the event of a failure and automatically restores failed paths that become healthy.

Highlights:
• Enhance data availability through storage path failure protection and fast failover.
• Optimize I/O performance by distributing requests across all available paths according to predefined load balancing policies.
• Improve storage visibility through advanced device naming capabilities and expand your choice of storage vendors.

Veritas™ Cluster Server
Veritas Cluster Server Virtual Business Service (VBS) feature provides continuous high availability for multi-tier applications running on heterogeneous physical and virtual platforms. VBS eliminates the complexity of virtualization associated with managing multiple layers of physical and virtual environments, each with its own management tools.

Highlights:
• Simplify the start/stop orchestration of multi-tier applications.
• Gain end-to-end visibility of the complete business service.
• Eliminate management complexity of applications running on heterogeneous physical and virtual platforms.

REDUCED APPLICATION IMPACT FROM BACKUP AND RECOVERY OPERATIONS

Both backup and virtualization are I/O- and CPU-intensive processes and can impact application performance that business-critical applications, that are themselves transaction heavy, cannot withstand. Organizations tend to protect their VMs the same as their physical machines, which is to install a backup client in the VM and thereby potentially causing application performance impact. Increasing numbers of virtual machines can create contention between the backups within each virtual machine for limited network bandwidth, CPU I/O, and memory resources. Resource-intensive backup and restore operations within these VMs can result in bottlenecks that increase backup windows and impact the performance of virtualized applications.

In addition, many businesses often fall prey to creating new and redundant silos of data protection technologies and processes, one for traditional physical, and one for the growing base of virtual machines. This is counterintuitive to basic premise of data center consolidation and can introduce redundancies that translate into additional capex and opex costs.

Organizations want to unify backup and recovery operations to drive out redundancies, costs, and performance overhead.
PRODUCT SUMMARY:

NetBackup
While backup takes many forms, recovery shouldn't. Symantec NetBackup™ with V-Ray technology is the single solution when recovery is needed—whether from tape, disk, snapshot, cloud—in a physical or virtual environment. Only NetBackup with V-Ray unifies backup, deduplication, replication, snapshots, and appliances with support for VMware and Microsoft Hyper-V® in a single product.

Highlights:
• Unified global management of snapshots, replicated snapshots, backup, and recovery.
• V-Ray one-pass backup, instant image and single file restore for virtual and physical.
• Automated virtual data protection and load balanced backup performance.

Backup Exec
Symantec Backup Exec™ 2012 is one integrated product that protects virtual and physical environments, simplifies both backup and disaster recovery, and offers unmatched recovery capabilities. Powered by Symantec V-Ray technology, Backup Exec 2012 restores entire servers, critical Microsoft® applications, and VMware or Microsoft Hyper-V virtual environments to dramatically minimize business downtime.

Highlights:
• Easily restore virtual machines, applications, databases, file/folders or granular objects from a single-pass backup in seconds with patented V-Ray technology.
• Best-of-breed data deduplication to optimize any backup strategy with client, media server, and appliance data deduplication.
• Innovative and modern administration console makes it easier than ever to set up backups, manage backup policies, perform disaster recoveries, and convert backups to virtual machines for instant disaster recovery.

HIGH-PERFORMANCE SECURITY AND COMPLIANCE YOU CAN TRUST
Physical segmentation models between data and server workloads are no longer viable as customer environments become a shared pool of infrastructure resources. As high as 70 percent of businesses will have workloads of different trust levels on common physical hosts (Gartner: “From Secure Virtualization to Secure Private Clouds,” October 2010). New innovations in technology and best practices will be needed to sustain the same, or better, levels of protection than these businesses had in the past.

Virtualization’s unique security challenges are now addressed through essential technologies from Symantec and VMware that can monitor and adapt to changes in the virtual fabric from virtualized hosts and desktops to uncontrolled spread of data for seamless protection in high-density infrastructures. Potential risks of data loss and liability and services downtime are reduced with policy-based event controls, automated response processes, and threat intelligence-based monitoring. Symantec solutions deliver essential security with high performance in virtual environments.

PRODUCT SUMMARY:

Data Loss Prevention
Integrates with vShield to discover sensitive data residing in virtual data centers and to automatically quarantine virtual machines that violate data security policies.

Highlights:
• Discover sensitive data on Guest VMs.
• Monitor network traffic for policy violations.
• Notifications to vShield App to automate quarantines of VMs with policy violations.
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**Critical System Protection**
Integrates vSphere protection and hardening policies to monitor and prevent configuration file tampering, limit inbound/outbound communications and access, stop unauthorized services from running, and prevent zero-day attacks against unpatched or vulnerable systems.

**Highlights:**
- Unique vSphere platform hardening.
- Protects the Guest, Hypervisor, and vCenter Management Server.
- Limits workload network connections.

**Security Information Manager**
Integrates a unique vShield log collector to extend visibility into the advancing virtual infrastructure for unparalleled context to threat activity with advanced telemetry between internal physical, virtual, and external threat landscape intelligence to prioritize risk.

**Highlights:**
- Supports virtual environment deployments.
- Unique threat telemetry between physical, virtual, and threat landscape sources.
- Increases detection of multidimensional user access activities.

**Control Compliance Suite**
Integrates vSphere hardening policies, allowing for scheduled automated scans to report on vSphere platform state as well as perform vulnerability scans of critical vSphere assets.

**Highlights:**
- Protect and monitor with integrated policies based on VMware standards.
- Automate assessments of baseline VM configurations.
- Vulnerability Management for VMs.

**Symantec™ Web Gateway**
Will integrate vShield App to identify endpoint infections and bot activity allowing automation of quarantine and other mitigation actions.

**Highlights:**
- Virtual or physical appliance deployment option.
- Web-filtering software integrates seamlessly with Symantec™ Data Loss Prevention.
- Application control capabilities.

**Symantec endpoint solutions**
Symantec plans to leverage vShield Endpoint with its endpoint security offerings to offload critical security analysis from protected virtual machines to a dedicated security virtual appliance, resulting in optimized scan performance, reduced resource utilization, and increased management visibility, all while providing unparalleled protection.

**Highlights:**
- Optimized for high-density performance with scan elimination and deduplication capabilities.
- Built to secure your virtual and physical infrastructure more effectively.
- Powerful central management of security for physical and virtual Windows® and Mac® endpoints.

**Summary**
As your IT business delivery model transforms from a static physical deployment to consolidated virtual workloads to on-demand service delivery, Symantec virtualization solutions can help you to achieve essential high levels of performance, availability, and trust you need.

Confidence in a connected world.