

IBM System Storage N series SnapManager for Virtual Infrastructure Software



The Challenge

Server virtualization introduces new challenges when it comes to data protection for virtual machines and business continuity. The demand placed on highly utilized servers by traditional backups and disaster recovery in a virtual infrastructure can exceed the amount of available server resources. Additionally, the mobility of virtual machines requires a new level of operational agility to manage a storage environment in which virtual machines can migrate from one physical server to a different one based on workload balancing or failover requirements.

Virtual infrastructure administrators and storage administrators often use backups within each virtual machine combined with scripts that are expensive to develop and maintain. This approach can require more computing and I/O bandwidth than is available on a given server. An alternative is to use a dedicated proxy server to back up multiple VMware ESX servers, but this method can lead to adding more proxy servers as workload demands increase.

Highlights

- **Increased server utilization for application workloads by eliminating interruptions and performance impact caused by traditional backups/restores**
- **Enables consistent backups of virtual machines by using the HotBackup mode capability of VMware ESX**
- **Automated policy-based data protection of data stores through Snapshot™**
- **Granular recovery of virtual machines through SnapRestore®**
- **Replication of data stores to secondary sites through SnapMirror® enabling cost-effective disaster recovery**
- **Designed to help eliminate the development and maintenance costs of using customized scripts for performing backup operations**
- **Intuitive and easy-to-use interface**

The Solution: IBM System Storage N series SnapManager for Virtual Infrastructure

SnapManager® for Virtual Infrastructure is a comprehensive data management solution intended to streamline storage management in a VMware® ESX environment. It can also help simplify backup, restore and disaster recovery operations for virtual machines.

Deployed in combination with IBM N series storage systems, SnapManager for Virtual Infrastructure software helps to empower virtual infrastructure administrators to address virtual infrastructure challenges through

policies set by storage administrators. These policies are designed to deliver a unique combination of availability, scalability, performance and reliability for the VMware ESX environment when performing hot backups, rapid restores and disaster recovery solutions.

Virtual Infrastructure protection without impacting your servers through automated data protection and recovery of your virtual machines

SnapManager for Virtual Infrastructure offers an easy-to-use interface designed to provide a seamless solution for managing backup, recovery and replication of virtual machines in a multiple VMware ESX server environment.

SnapManager for Virtual Infrastructure integrates IBM N series Snapshot, SnapRestore and SnapMirror technologies for automated backups of data stores. It provides granular recovery of virtual machines as well as cost-effective disaster recovery solutions through replication of data stores to a secondary site. By also leveraging the Data ONTAP® data protection functionality of IBM N series storage systems and the VMware ESX HotBackup mode capability, SnapManager for Virtual Infrastructure is intended to provide consistent backups and help eliminate the virtual machine's elusive backup window.

Key Benefits

| Feature | Benefits |
|--------------------|--|
| Snapshot | <ul style="list-style-type: none">• Enables frequent, non-disruptive, space-efficient and quickly restorable backups |
| SnapRestore | <ul style="list-style-type: none">• Enables near-instantaneous recovery of files, databases and complete volumes |
| SnapMirror | <ul style="list-style-type: none">• Provides flexible, space- and network-efficient site-to-site mirroring for disaster recovery and data distribution |
| SnapVault® | <ul style="list-style-type: none">• Enables cost-effective, long-term retention of rapidly restorable disk-based backups |
| FlexClone™ | <ul style="list-style-type: none">• Accelerated test and development and storage capacity savings |
| FlexVol® | <ul style="list-style-type: none">• Thin Provisioning; allows applications and users to get more space dynamically and non-disruptively without IT staff intervention. Can enable more productive use of available storage and helps improve performance |



For more information

To learn more about the IBM System Storage N series SnapManager for Virtual Infrastructure, please contact your IBM marketing representative or IBM Business Partner, or visit:

ibm.com/systems/storage/network/

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MB, GB and TB equal 1,000,000, 1,000,000,000 and 1,000,000,000,000 bytes, respectively, where referring to storage capacity. Actual storage capacity will vary based upon many factors and may be less than stated. Some numbers given for storage capacities give capacity in native mode followed by capacity using data compression technology.



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